



# Domestic Data Entry Operator

(Job Role)

Qualification Pack: Ref. Id. SSC/Q2212

Sector: Information Technology and Information  
Technology enabled Services (IT-ITeS)

Textbook for Class IX



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विद्यया ऽ मृतमश्नुते



एन सी ई आर टी  
NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्  
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## FOREWORD

The National Curriculum Framework–2005 (NCF–2005) recommends bringing work and education into the domain of the curricular, infusing it in all areas of learning while giving it an identity of its own at relevant stages. It explains that work transforms knowledge into experience and generates important personal and social values such as self-reliance, creativity and cooperation. Through work one learns to find one's place in the society. It is an educational activity with an inherent potential for inclusion. Therefore, an experience of involvement in productive work in an educational setting will make one appreciate the worth of social life and what is valued and appreciated in society. Work involves interaction with material or other people (mostly both), thus creating a deeper comprehension and increased practical knowledge of natural substances and social relationships.

Through work and education, school knowledge can be easily linked to learners' life outside the school. This also makes a departure from the legacy of bookish learning and bridges the gap between the school, home, community and the workplace. The NCF–2005 also emphasises on Vocational Education and Training (VET) for all those children who wish to acquire additional skills and/or seek livelihood through vocational education after either discontinuing or completing their school education. VET is expected to provide a 'preferred and dignified' choice rather than a terminal or 'last-resort' option.

As a follow-up of this, NCERT has attempted to infuse work across the subject areas and also contributed in the development of the National Skill Qualification Framework (NSQF) for the country, which was notified on 27 December 2013. It is a quality assurance framework that organises all qualifications according to levels of knowledge, skills and attitude. These levels, graded from one to ten, are defined in terms of learning outcomes, which

the learner must possess regardless of whether they are obtained through formal, non-formal or informal learning. The NSQF sets common principles and guidelines for a nationally recognised qualification system covering Schools, Vocational Education and Training Institutions, Technical Education Institutions, Colleges and Universities.

It is under this backdrop that Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal, a constituent of NCERT has developed learning outcomes based modular curricula for the vocational subjects from Classes IX to XII. This has been developed under the Centrally Sponsored Scheme of Vocationalisation of Secondary and Higher Secondary Education of the Ministry of Human Resource Development.

This textbook has been developed as per the learning outcomes based curriculum, keeping in view the National Occupational Standards (NOS) for the job role and to promote experiential learning related to the vocation. This will enable the students to acquire necessary skills, knowledge and attitude.

I acknowledge the contribution of the development team, reviewers and all the institutions and organisations, which have supported in the development of this textbook.

NCERT would welcome suggestions from students, teachers and parents, which would help us to further improve the quality of the material in subsequent editions.

New Delhi  
June 2018

HRUSHIKESH SENAPATY  
*Director*  
National Council of Educational  
Research and Training

## ABOUT THE TEXTBOOK

The IT-ITeS sector is growing at a fast pace and is a very important industry in India and abroad. In the growing business opportunities in various domains around the globe, there is a huge transfer of information from one place to another. Large amount of data are churned thus creating a need for proper management of the data that are collected. The companies also have to concentrate on their core activities and resort to outsourcing the data entry process. The rapid growth in the IT industry along with the entry of many small and large outsourcing companies in this area, has led to a huge demand for trained personnel for various job roles, such as Data Entry Operator.

Domestic Data Entry Operators in the IT-ITeS Industry are also known as a Data Entry Operators. These individuals are responsible for providing daily work reports and work on hourly basis. They are also responsible for electronic entry of data from the client site on to the office site or vice-versa. Individual tasks vary depending on the size and structure of the organisation. This job requires the individual to have thorough knowledge of various technology trends and processes as well as have updated knowledge about database management systems and IT initiatives. The individual should know fast and accurate typing or data encoding. This job involves working on a computer, and appropriate software to enter accurate data regarding different issues like retrieving data from a computer or to a computer.

The textbook for the job role of “Domestic Data Entry Operator” has been developed to impart knowledge and skills through hands-on learning experience, which forms a part of the experiential learning. Experiential learning focuses on the learning process for the individual. Therefore, the learning activities are student-centered rather than teacher-centered.

The textbook has been developed with the contribution of the expertise from the subject and industry experts and academicians

for making it a useful and inspiring teaching-learning resource material for the vocational students. Adequate care has been taken to align the content of the textbook with the National Occupational Standards (NOSs) for the job role so that the students acquire necessary knowledge and skills as per the performance criteria mentioned in the respective NOSs of the Qualification Pack (QP). The textbook has been reviewed by experts so as to make sure that the content is not only aligned with the NOSs, but is also of high quality. The NOSs for the job role of Domestic Data Entry Operator covered through this textbook are as follows:

1. SSC/N3022 – Undertaking data entry services
2. SSC/N9001 – Managing work to meet requirements
3. SSC/N9003 – Maintaining a healthy, safe and secure working environment

Unit 1 of the textbook explains the various career opportunities within the IT-ITeS sector. It then details the various IT enabled services. Maintaining the work area as well as the health and safety aspects within the IT service sector are also covered in the first unit. Unit 2 will help students to learn typing skills using a typing tutor. It also covers the ergonomics and sitting posture, to put the student on a firm footing in terms of health aspects associated with computer systems. Unit 3 deals with basic Word Processing skills so that students can learn to enter and edit the text to prepare the document. Unit 4 deals with basic spreadsheet skills to prepare a worksheet so that students can learn to create and manipulate the data in the spreadsheet. Unit 5 covers the basic presentation skills to prepare a slide presentation so that students can learn to create presentations.

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The National Council of Educational Research and Training (NCERT) expresses its gratitude to all members of the Project Approval Board (PAB) and officials of the Ministry of Human Resource Development (MHRD), Government of India, for their cooperation in the development of this textbook. The Council also extends gratitude to all the contributors for sharing their expertise and valuable time by positively responding to the request for the development of this textbook.

The Council expresses its gratitude towards Rajesh Khambayat, *Joint Director*, PSS Central Institute of Vocational Education (PSSCIVE), Bhopal, for providing support and guidance in the development of this textbook. We are thankful to the course coordinator Dipak D. Shudhalwar, *Associate Professor* (CSE) and *Head*, Department of Engineering and Technology, PSSCIVE, NCERT, Bhopal, for his untiring efforts towards solely developing the content for this textbook and also providing software related photographs used in the textbook. The images used other than these are under Creative Commons License. Ganesh Kumar Dixit and Jayant Mishra, *Consultants* in IT-ITeS, Department of Engineering and Technology, PSSCIVE, Bhopal, are also duly acknowledged for their untiring efforts and contribution in the development of this textbook for vocational skills.

The Council is grateful to Saroj Yadav, *Professor and Dean (A)*, NCERT, and Ranjana Arora, *Professor and Head*, Department of Curriculum Studies, and Mamur Ali, *Assistant Professor*, CIET, NCERT, New Delhi, for carefully evaluating and giving suggestions for the improvement of this book and its finalisation. The Council acknowledges the copy editing and valuable contribution of Shilpa Mohan, *Assistant Editor* (Contractual) and Sanjeev Kumar, *Copy Holder* in shaping this book. The efforts of Pawan Kumar Barriar, *DTP Operator*, and Haridarshan Lodhi, *DTP Operator* (Contractual), Publication Division, NCERT, for flawless layout design are also acknowledged.

The Council is grateful to the Ministry of Human Resource Development for the financial support and cooperation in realising the objective of providing a quality textbook for the Indian vocational students.



Nirmalya Chakraborty, College of Art, New Delhi



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# *Do You Know*



According to the 86<sup>th</sup> Constitutional Amendment Act, 2002, free and compulsory education for all children in 6-14 year age group is now a Fundamental Right under Article 21-A of the Constitution.

**EDUCATION IS NEITHER A  
PRIVILEGE NOR FAVOUR BUT A  
BASIC HUMAN RIGHT TO  
WHICH ALL GIRLS AND WOMEN  
ARE ENTITLED**

*Give Girls  
Their Chance !*





# Introduction to IT-ITeS Industry

## INTRODUCTION

Information and Communication Technology (ICT) has become one of the basic requirements of the modern society. In today's digital era, we use mobile devices to perform the tasks of our daily life. It is difficult to think of any event without the use of digital devices. Information Technology (IT) is one of the world's fastest growing economic activities, which envisages easier flow of information at various levels in the desired pattern. The Information Technology enabled Services (ITeS) sector has not only changed the way the world looks at our country but has also made significant contributions to the Indian economy. This session will introduce the basic concepts and ideas related to Information Technology (IT) and IT enabled Services (ITeS).

### Information Technology

Information Technology (IT) means creating, managing, storing and exchanging information. IT includes all types of technology used to deal with information, such as computer hardware and software technology

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used for creating, storing, and transferring information. Computer takes data as input, processes it and produces the results as output. The information is the result of data processing. Data refers to the facts or raw material, which are processed to get the information. Number of boys and girls in a class is a factual data of the classroom. This is an example of data related to the students in the class. Some conclusion can be drawn based on the data. This conclusion is information. The decisions are taken on the basis of data and information.

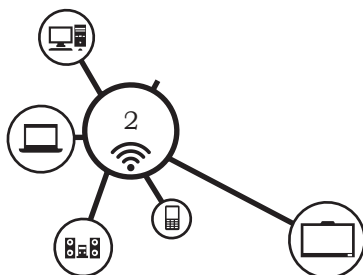
IT is a tightly integrated part of business. Computers and information systems are an essential part of every business today. Like accounting and legal, every business needs to invest in technology to compete. IT has several benefits for a business, such as it helps in reaching more potential customers, developing a business relationship with potential customers, streamlining operations, reducing costs, improving efficiency, maximising profit, minimising waste, providing better service to customers, supporting better relationships with key partners, and allowing customers to better guide the business.

### **Information Technology enabled Services (ITeS)**

Information Technology that enables the business by improving the quality of service is Information Technology enabled Services (ITeS). ITeS is also called web-enabled services or remote services that cover the entire operations which exploit Information Technology for improving the efficiency of an organisation. These services provide a wide range of career options that include opportunities in all offices like call centres, payrolls, logistics management, revenue claims processing, medical billing, coding, medical transcription, legal databases, back office operations, content development, GIS (geographical information system), web services and Human Resource (HR) services, etc.

ITeS is defined as outsourcing of processes that can be enabled with information technology and covers diverse areas like finance, HR, administration, health care, telecommunication, manufacturing, etc.

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E-enabled services radically reduce costs and improve service standards. In short, Internet service provider aims to provide B2B e-commerce solutions. ITeS offers different services integrated in a single delivery mechanism to end users. The services may include: Medical Transcription, Customer Relationship Management, Data Entry and Data Processing, Software development, Data Warehousing, IT Help Desk Services, Enterprise Resource Planning and Telecommunication Services.

### **BPO services**

Business Process Outsourcing (BPO) services means performing business operations through an outside service provider. BPO also comes under IT services as IT plays a very useful role in optimising the business performance. The BPO industry is highly organised and hence various kinds of jobs are outsourced in India. India has the expertise in reducing costs with firm control on the quality of the service.

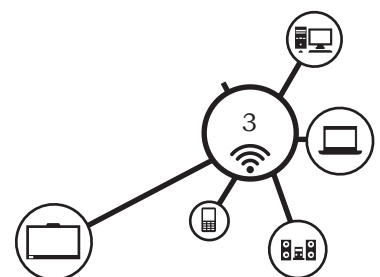
Some of the BPO services are as follows:

- (a) Financial and Accounting Services
- (b) Taxation and Insurance Services
- (c) E-Publishing and Web Promotion
- (d) Legal Services and Content Writing
- (e) Multimedia and Design Services
- (f) Document Management Services
- (g) Software Testing Services
- (h) Health Care Services

### **BPM industry in India**

The IT BPM (Business Process Management) industry has been fueling India's growth. In addition to contributing towards the country's Gross Domestic Product (GDP) and exports, the growth of the IT BPM industry has provided India with a wide range of economic and social benefits which includes creating employment, raising income levels, and promoting exports. It has placed India on the world map with an image of a technologically advanced and knowledge-based economy. This sector attracts amongst the largest investments by venture

## **NOTES**



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capitalist and has been credited with enabling the entrepreneurial ventures of many in the country. The IT-BPM industry has almost doubled in terms of revenue and contribution to India's GDP over the last decade (2008–18). BPO Service Industry is doing exceptionally well in India because of the following advantages:

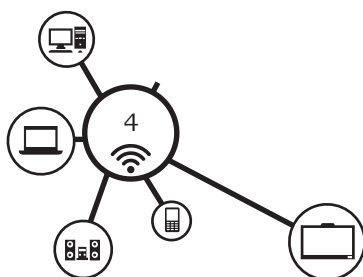
- (a) BPO service providers in India invest in hi-tech hardware and software to deliver the best of services. They follow quality checks to ensure error free and exceptional service.
- (b) Government of India is encouraging the BPO Industry in India by providing necessary infrastructure and logistical support.
- (c) BPO Industry in India is highly developed and capable of delivering numerous types of BPO services in exceptional quality.

### Structure of the IT-BPM industry

The organisations within the IT-BPM industry are categorised along the following parameters:

- Sector the organisation is serving
  - Type as well as range of offering the organisation provides
  - Geographic spread of operations
  - Revenues and size of operations
- (a) **Multinational Companies (MNCs):** MNCs have their headquarters outside India but operate in multiple locations worldwide including those in India. They cater to external clients (both domestic and/or global).
  - (b) **Indian Service Providers (ISPs):** ISPs started with their operations in India. Most of these organisations have their headquarters in India while having offices in many international locations. While most have a client base, which is global as well as domestic, there are some that have focussed on serving only the Indian clients.
  - (c) **Global In-house Centers (GIC):** GIC organisations cater to the needs of their parent company only and do not serve external clients.

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This model allows the organisation the option to keep IT Operations in-house and at the same time take advantage of expanding their global footprint and offering opportunities for innovation in a cost-effective manner.

## IT applications

In technologically developed nations, Information Technology has become a part of everyday life. For a user, computer is a tool that provides the desired information, whenever needed. The use of computer and Information Technology can be observed at home, workplace, in the modern service industry and in all aspects of our life. It includes listening to music, watching movies, playing games, doing office work, chatting and sending messages, managing daily planner, reading books, paying utility bills, booking ticket to travel, bank operations, etc. Computers and ICT is used in industries, in offices, and in house also. The various application areas are business, banking, insurance, education, marketing, health care, engineering design, military, communication, animation, research, agriculture and government.



Fig. 1.1: IT applications

## IT in home computing

A personal computer (PC) is used to work at home, to do household accounts, play games, surf the web, use

INTRODUCTION TO IT-ITeS INDUSTRY

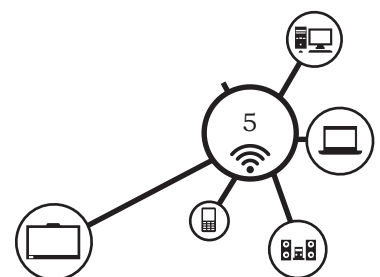




Fig. 1.2: IT in home computing



Fig. 1.3: IT in everyday life



Fig. 1.4: IT in library

e-mail, create music, and pursue a range of other hobbies. PC is also used to play games. It includes action games, role playing games, puzzles and many more. A PC with a CD-ROM drive, sound card, and speakers can play audio CD. A computer can be used from home to study a wide range of online training courses. Computers and digital devices are now used for online shopping and e-commerce.

### IT in everyday life

In our daily life, we use washing machines, microwave oven and many other products using which have embedded software. We can store all the information about our important work, appointments schedules and list of contacts in a computer. Computer is, therefore, playing a very important role in our lives and now we cannot imagine the world without computers.

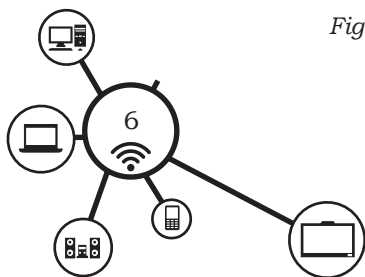
### IT in library

Nowadays many libraries are computerised. Each book has a barcode associated with it. This makes it easier for the library to keep track of books and the availability of a specific book. Computer software is used to issue and return the book. Each book in the library has a magnetic strip attached to it that is deactivated before the book can be borrowed.

### IT at workplace

In the office environment, computers and computer applications are used to perform office work more effectively.

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In assembly-line industries, where attention to detail, speed and efficiency are important, automation is becoming more and more common. Internet and Office applications form the basis of modern business.

## IT in education

Computers and Information Technology are extensively used in education for teaching-learning and assessment.

The software and hardware technology is used for creation and transmission of information in various forms including still pictures, audio, video and animation to the learners. The learning becomes easy and accessible through IT. A lot of teaching resources are available for teachers to teach in a better way. Online assessment helps to assess the students without any biasness. The students, teachers and educational administrators and every stakeholder in the education sector has benefitted with the integration of IT in education.



Fig. 1.5: IT at workplace



Fig. 1.6: IT in education

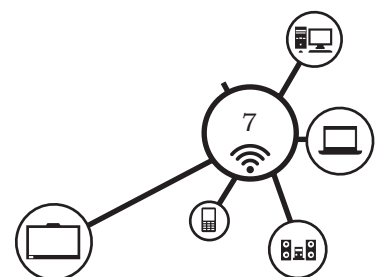
### (a) ICT in the classroom

There are many ways in which the ICT is used for education in the classroom, such as

- e-learning classrooms;
- smart-board presentations;
- videos on experiments;
- creation of images and video;
- desktop publishing of magazines, letters and documents;
- educational games;
- learning using the CD-ROM media; and
- gathering educational information on the Internet.

### (b) Education — anywhere anytime

Any student in India can access the NCERT book online through the website [www.epathshala.nic.in](http://www.epathshala.nic.in) or mobile app.



Apart from this there are a variety of websites and mobile apps to access educational resources on any topic.

You can also contact a teacher or a trainer via Internet to use WBT (Web-based Training). In this way education has reached the far flung areas by reaching the unreached.

### **(c) Teaching aids and media**

ICT is used mostly as a teaching aid in schools to

- use pictures, animations and audio-visuals to explain subjects that are difficult to explain.
- make the lessons interesting using presentations.
- organise lessons using the computer.
- obtain the information relevant to the subjects.

### **(d) Learning Management System (LMS)**

A Learning Management System (LMS) is being used by many countries to manage school systems. A student or teacher can register himself/herself on the official website to access LMS and can get many services from LMS. The student can be benefited by using LMS, as it can be used to

- learn lessons anytime and anywhere.
- submit queries, getting replies and submit comments through forums.
- participate in the co-curricular activities via video.
- monitor the progress of their children (by parents).

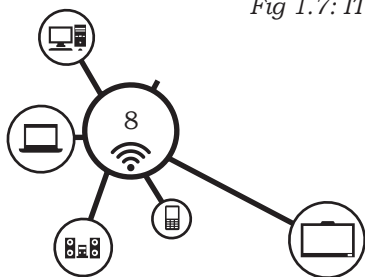


Fig 1.7: IT in entertainment

### **IT in entertainment**

Information Technology has had a major impact on the entertainment industry. Internet is a major source of entertainment. One can download and view movies, play games, chat, use multimedia, incorporate visual and sound effects using computers, etc. Digital broadcasting has changed the way we experience television, with more interactive programming and participation.

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## IT in communication

Communication is used to convey messages and ideas, pictures, or speeches. A person who receives this must understand clearly and correctly. Modern communication makes use of the computer system. We use computers for email, chatting, FTP, telnet and video conferencing.



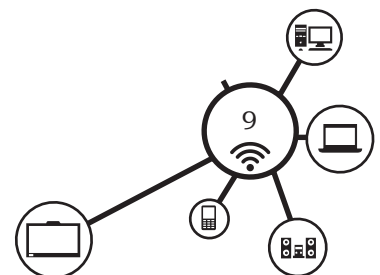
Fig. 1.8: IT in Communication

## IT in business

Computers are used in business organisations for payroll calculation, budgeting, sales analysis, financial forecasting, managing and maintaining stocks. A lot of business transactions happen through Internet called e-commerce. IT facilitates marketing, customer visit, product browsing, shopping basket checkout, tax and shopping, receipt and process order. E-commerce offers services pertaining to processing inventory management, transactions, documentation, presentations, and gathering product information. Smart cards, such as credit cards and debit cards are used in shops. These cards have a metallic strip on which the user's Personal Identification Number (PIN), and account number is stored and can be read when it is passed through a special reader. Airlines use large-scale computer applications for their reservations system, both in the airports and in central reservations call-centers. Other businesses that have large-scale computing requirements are insurance claims systems and online banking, which both have large numbers of users and operators interacting across one system.

## IT in science and engineering

Scientists and engineers use computers for performing complex scientific calculations, Computer Aided Design (CAD) or Computer Aided Manufacturing (CAM) applications are used for drawing, designing and for simulating and testing the designs. Computers are used for storing large amount of data, performing complex calculations and for visualising



## NOTES

3-dimensional objects. Complex scientific applications like rocket launching, space exploration, etc., are not possible without the computers.

### IT in banking

Computer is an essential part of the modern banking system. Every activity of a bank is now online. The customer's data and transactions are recorded by computers. Recurring deposits (e-RD), Fixed deposits (e-FD), money transfer from one account to another (NEFT, RTGS), online transactions are done using Internet. Capital market transactions, financial analysis and related services are available in online platforms. Bank customers use Automated Teller Machines (ATM) for cash deposits and withdrawal, or to view current balance.

### IT in insurance

Insurance companies keep all records up to date with the help of computer database. Procedures for continuation of policies, starting date, date of next installment, maturity date, interest dues, survival benefits, and bonus are declared by using computers in insurance companies. Many online policies are also available which can be purchased by using the website of insurance companies.

### IT in marketing

In marketing, computers are used for advertising of products, by using arts and graphics facility it is possible to create interesting advertisements of various products so that the goal of selling can be achieved. Using e-commerce websites, people can purchase items even sitting at home.

### IT in health care

ICT is used in the health sector in numerous ways. Hospital Management System is used to maintain and manage patients' records as well as various activities pertaining to hospital administration. The computerised

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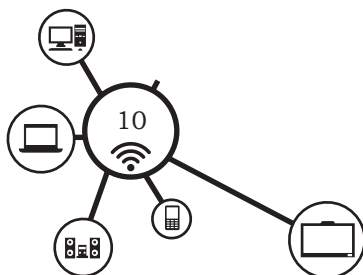






Fig. 1.9 (a) MRI machine

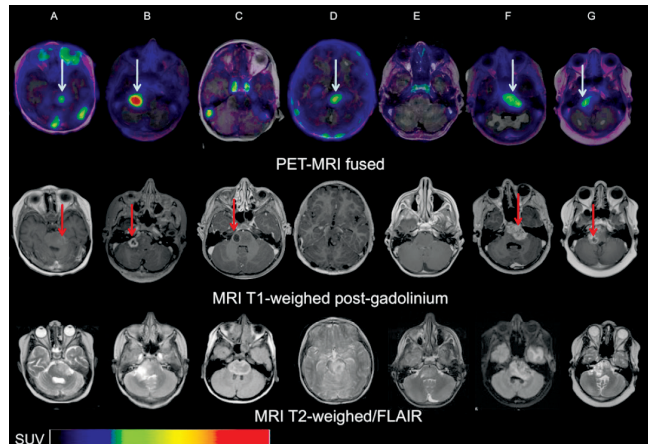


Fig. 1.9 (b) Detailed images

machines are used for ECG, EEG, Ultrasound and CT Scan. The variety of measuring instruments and surgical equipment are used to monitor patients' conditions during complex surgery. Expert system is used for diagnosis. Health care manufacturing companies use computers to aid the production of diagnostic tools and instruments. Computers are an integral part of laboratories and dispensaries. They are used in scanning and diagnosing different diseases.

#### (a) Use of ICT in diagnosis

With the advancements in computer hardware and software technology, various high-tech machines are used in the diagnosis and treatment of critical diseases. Using expert system, diseases can be diagnosed at the early stages and the patients can be given treatment accordingly. Some of these machines are:

- (i) **Computerised Axial Tomography Machine (CAT):** Using this machine three-dimensional (3D) images of different parts of the body can be made. These images are helpful in the diagnosis of diseases.
- (ii) **MRI (Magnetic Resonance Imaging Machine):** MRI machines are used to give the digital impression of internal organs of the body by using strong magnetic fields and radio waves. The digital images are very helpful in the detection and in deciding the treatment of diseases.

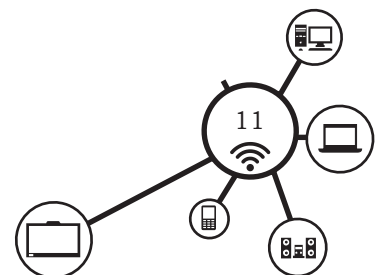




Fig. 1.10 (a) ECG Machine

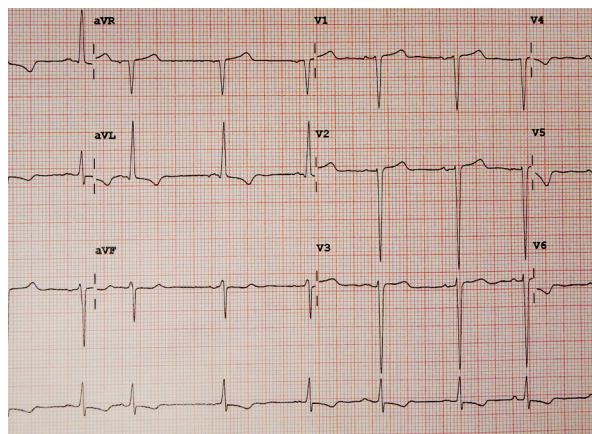


Fig. 1.10 (b) ECG Graph



Fig. 1.11: Cardiac Screening Machine and Display



Fig. 1.12: EEG Machine and Display



Fig. 1.13: Sugar Testing Machine

(iii) **Electrocardiogram (ECG) Machine:** The ECG machine is used to monitor the heartbeat. When the heart pumps blood to different parts of the body some electrical impulses are produced. This machine records the electrical impulses and shows it in the form of a graph.

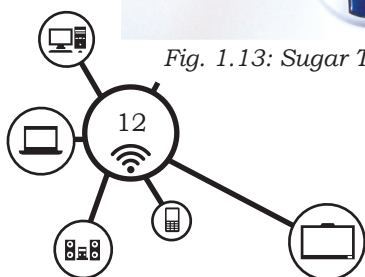
(iv) **Cardiac Screening Machine:** This machine displays the physiology of the heart and it displays the movements inside the heart. Through this machine it is possible to diagnose problems of the heart, such as thinning of veins and then recommend treatment.

(v) **EEG (Electro-encephalography) Machine:** This machine is used to record the activities of the brain. The small electrical probes attached to the head receive the electrical impulses of the brain and display them on a computer screen. This device can retrieve the data in both states where a patient is awake or asleep.

(vi) **Blood Sugar Testing Machine:** This device analyses a sample of blood and determines the blood glucose level.

(vii) **Blood Pressure Measuring Machine:** This device which is worn as a wrist band can measure the blood pressure of a person at

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rest or when he/she is involved in some physical activity.

## IT in the government and public service

The government uses large-scale computer applications in its daily operations and is actively encouraging e-governance practices. Digital India and e-governance initiative of Government of India are best examples of this. Government and Non-Governmental Organisations (NGOs) as well as International Government Agencies use ICT applications to communicate and provide various services to the people and is called as e-governance. There are various official web portals of the Government of India for e-governance. There are various advantages of e-governance.

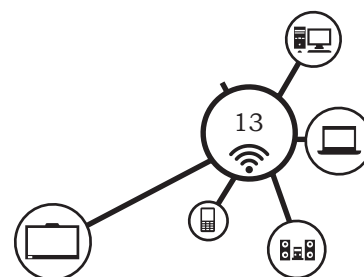
The Income tax department, sales tax department, preparations of voters list, preparation of PAN card makes use of the computer system. Many government services are available online. Electricity bills can now be paid online. The government uses electronic voting for elections, by replacing the traditional voting slip and ballot box. People can enroll themselves in the electoral roll through the State Election Commission portal. Computers are common-place in modern society, and tend to make previously laborious manual tasks of data entry much simpler and quicker.



Fig. 1.14: Measuring Blood Pressure

### Practical Exercise

1. Explore the impact of IT and ITeS in various areas in day-to-day life.
2. Visit Indian government websites, such as the official web portal of Department of School Education, MHRD, Government of India. Make a list of all the valuable information and the services you could obtain yourself.
3. Make a list of e-government services that are provided by other countries.
4. Visit the various websites and list the areas where ICT is used.
5. Identify the advantages of using ICT over conventional methods in various areas.
6. Observe other instances where ICT is used in business and manufacturing and compile a list.



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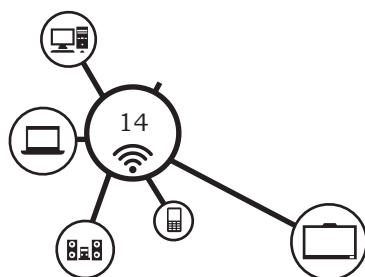
## Check Your Progress

**A. Give an example of the use of IT in the following areas. Avoid already discussed examples.**

Teacher Practice	Example
Classroom content transaction	
Assessment of students	
Library management	
Student record management	

**B. Short answer questions (50 words)**

1. What do you understand by the term IT and ITeS?
2. What are the pros and cons of using ICT?
3. What precautions are required to ensure that ICT use is safe?
4. What are the four main sub-sectors in the IT-BPM industry?
5. Give examples of use of IT in everyday life.
6. How is IT used in libraries?
7. What are the various processes of education where IT is used?
8. Which software are used in digital communication?
9. For what purpose is IT used in business?
10. Which are the prominent areas where IT is used in science and engineering?
11. List the various uses of IT in a banking system.
12. Which are the different areas of healthcare where IT is used? And how?
13. List any 5 websites of the Indian government which provide IT enabled services to the people.



DOMESTIC DATA ENTRY OPERATOR – CLASS IX





# Data Entry and Keyboarding Skills

## INTRODUCTION

In order to enhance operational skills in the use of computers, knowledge of efficient and effective keyboarding skills and typing ergonomics has become inevitable today. With consistent, sincere efforts and controlled environment, we can master keyboarding skills and acquire high speed. Keying data into the computer quickly and accurately, thus, becomes easy.

There are various methods of typewriting. In this unit, we will study about various types of keys, typing ergonomics and positioning of fingers on the keyboard according to touch method of typewriting and use of typing software for learning keyboarding skills.

## Keyboarding Skills

Keyboard is the most common text-based input device. Computer keyboards are similar to electronic typewriter keyboards with additional keys. A keyboard generally has more than 100 keys. Each key of a keyboard corresponds to a single symbol. Some symbols require pressing and holding several keys simultaneously or in sequence. It allows entering alphabets, digits and

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symbols into the computer. Simultaneous key press can produce actions or computer commands. The touch method of typewriting is a method of typing without using the sense of sight to find the keys. There is no need to search the key while typing and one has to move only the finger which is needed to strike a key.

A touch typist knows the location on the keyboard through muscle memory. Touch typing typically involves placing the eight fingers in a horizontal row along the middle of the keyboard (the home row). Touch typing can be done with two hands or by using a single hand also.

A touch typist starts by placing his or her fingers on the “start position” in the middle row and knows which finger to move and how much to move it for reaching any required key. It is important to learn placing fingers into the start position blindly as the hands are frequently raised from the keyboard to operate the line feed lever (in the past) or (more recently) the computer mouse.

Typing speed generally improves with practice. The typing speed can be increased gradually and speeds of 60 WPM (words per minute) or higher can be achieved. The rate of speed increase varies between individuals. Many websites and software products (e.g., Rapid Typing Tutor) are available to learn touch typing and many of these are free. There are many such software available which are free of cost and are customised to learn typing efficiently and effectively.

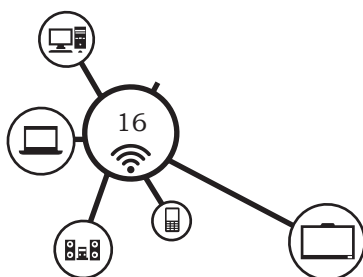
Keyboards are also used for computer gaming, either with regular keyboards or by using keyboards with special gaming features.

### Types of keys

Though there are several input devices viz. mouse, touchscreen, character or voice recognition, etc., used for giving input to the computer, yet the use of keyboard is the most common method adopted for input of data into a computer. A computer keyboard contains the following types of keys:

- **Alphanumeric keys:** All of the alphabet (A-Z) and numbers (0-9) on the keyboard.

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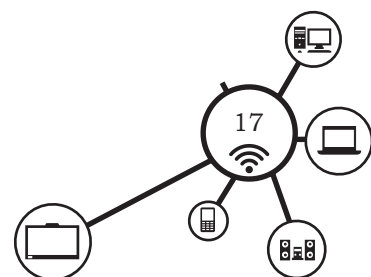




## NOTES

- **Punctuation keys:** All of the keys associated with punctuation, such as the comma (,), period (.), semicolon (;), brackets ([ ]), and parenthesis ( { } ) and so on. Also, all of the mathematical operators such as the plus sign (+), minus sign (-), and equal sign (=).
- **Alt key:** Short for Alternate, this key is like a second control key.
- **Arrow keys:** There are four arrow keys to move the cursor (or insertion point) up (↑), down (↓), right (→), or left (←). Arrow keys can be used in conjunction with the
- **Shift or Alt keys:** To move the cursor in more than one position at a time.
- **Backspace key:** Deletes the character just to the left of the cursor (or insertion point) and moves the cursor to that position.
- **Caps Lock key:** It is a toggle key, which when activated, causes all alphabetic characters to be uppercase.
- **Ctrl key:** The control key is used in conjunction with other keys to produce control characters. The meaning of each control character depends on which program is running.
- **Delete key:** The Del key deletes the character at the current cursor position, or the selected object, but does not move the cursor. For graphics-based applications, the delete key deletes the character to the right of the insertion point.
- **Enter key or Return key:** It is used to enter commands or to move the cursor to the beginning of the next line.
- **Esc key:** The Escape key is used to send special codes to devices and to exit (or escape) from programs and tasks.
- **Function keys:** Special keys labelled F1 to F12. These keys have different meaning depending on which program is running.

When a key is pressed, an electrical contact is formed. These electric signals are transmitted to a



micro-controller in a coded form to the computer describing the character which corresponds to that key. Keyboards are used for text-based programs and software. In the modern GUI based operating systems and applications, more sophisticated pointing devices were evolved, such as mouse, joystick, scanner, etc.



Fig. 2.1: Numeric keys

## Numeric keypad

Numeric keypad (Figure. 2.1) is used when enormous numeric data is to be entered. This keypad is just like a simple calculator. It is normally located on the right-hand side of computer keyboard. It contains numbers 0 to 9, addition (+), subtraction (-), multiplication (\*) and division (/) symbols, a decimal point (.) and Num Lock and Enter keys. Numeric keypad may also work on dual mode. On one mode, it represents numbers and on the other mode, it contains various keys like arrow keys, page up, page down, etc. NumLock is provided to switch between the two modes. Usually, some of the keyboards of laptops do not have a numeric keypad.

## Home keys

Alphabets ASDF are home keys for the left hand and; (semi-colon) LKJ for the right hand. The fingers are trained to make the correct movement to other keys and each finger returns immediately to its respective home key after it has depressed the corresponding key in any other row.

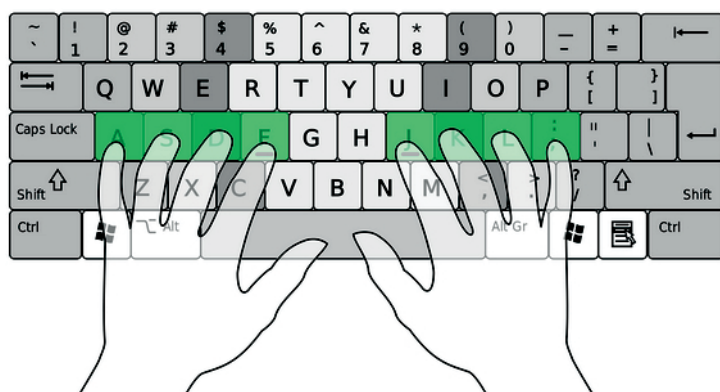
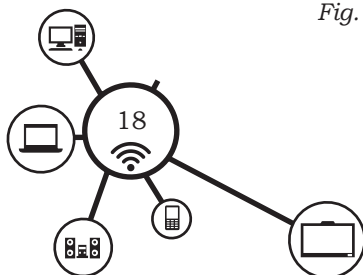


Fig. 2.2: Position on Home Row

## Guide keys

On a computer keyboard, keys 'F' and 'J' are called guide keys for left and right hand, respectively. Both contain a small raised tangible mark with the help of which the touch typist can place the fingers correctly on the home keys. Figure 2.2 shows the position of fingers of both hands on the Home Row.

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## Typing and deleting text

For typing text in a document you should

- click on the letters on the keyboard.

For deleting text in a document you should

- use the backspace key or the delete key. The backspace key will remove text from behind (to the left of) your cursor position.

For typing numbers in a document you should

- use the numbers lock or the numbers on the second row of keys on the keyboard.

## Typing capital letters

To type capital letters, switch ON the Caps Lock by pressing the key before typing. A light will shine on the top right side corner of the keyboard that shows Caps lock is on. To switch it off, tap on the Caps lock key before typing.

## Typing symbols

Press and hold the key and then press the key with the required symbol. There are two Shift keys on the keyboard — to the bottom left and right of the letters. The Shift key is used to access the top symbols that are one of the keys with two characters.

## Typing sentences

To get space between typed words, press the space bar once and then type the next word.

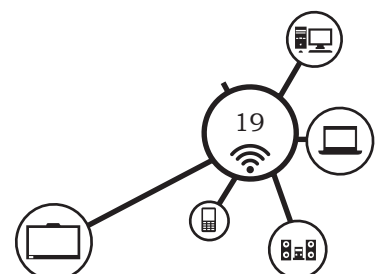
## Creating new lines and spaces between paragraphs

The Enter or return key is used to create new lines and spaces between paragraphs. Make sure that the cursor is flashing from a new line. It is also used to authorise instructions asked for the computer to perform.

## Guide for typing

The cursor keys serve as a guide for typing. They can be used to move the position of the cursor. The cursor is the small downward line that flickers in a sentence while typing. Move the position of the cursor by clicking the position with a mouse.

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## Pointing devices

Instead of typing, directly some items can be selected from computer screen, for example "print" or "close" button. This can be done using point and draw devices, such as mouse. Not only to select, but drawing of line, curve and shapes is also possible with such devices. Other examples of point and draw devices are joystick, light pea, touch pad or track ball and touch screen.

### Mouse

Mouse is a pointing device used to point a particular place on the screen and select to perform one or more actions (Figure 2.3). It can be used to select menu commands, resize windows, selecting actions from screen icons, etc. A mouse primarily comprises of three parts: the buttons, the handling area, and the rolling object. By default, the mouse is configured to work for the right hand. The left-handed persons can change the settings as per the needs.

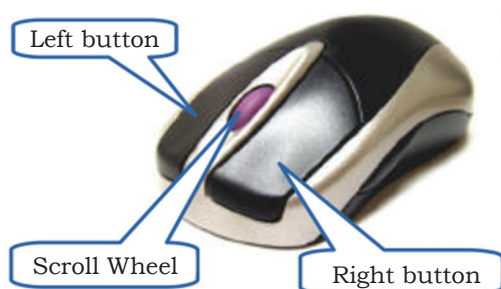


Fig. 2.3: Mouse buttons

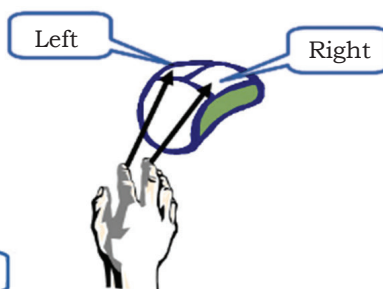


Fig. 2.4 (a) How to hold the mouse



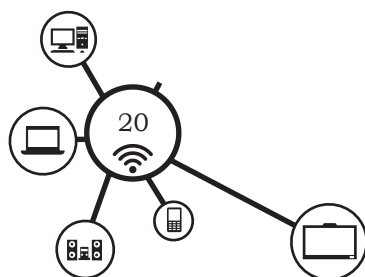
Fig. 2.4 (b) Position of fingers while holding the mouse

Put the right hand on the mouse, the index finger goes on the left button, and the middle finger goes on the right button (Figure 2.4 [a&b]). Hold the mouse with thumb and ring finger. To click, press a mouse button lightly and release it immediately.

### Mouse pointer

The mouse pointer allows to point on the screen. The pointer changes as shown below.

☞ This mouse pointer will appear as you move it around the screen (it can also be used to move things).



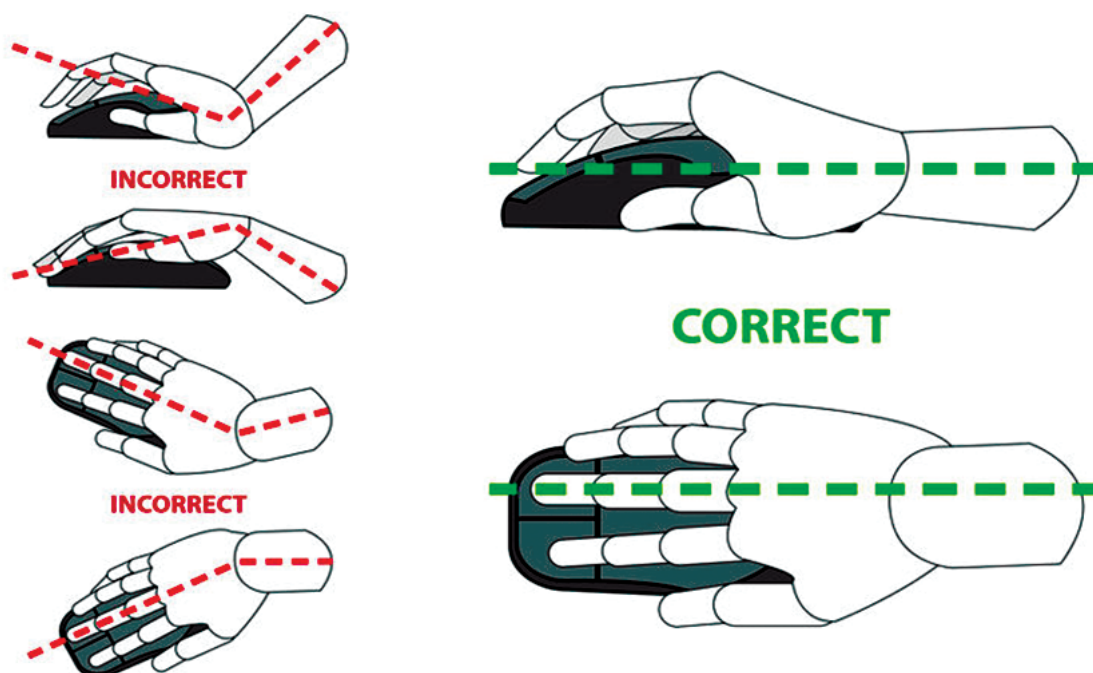


Fig. 2.4: Correct and incorrect positioning of fingers on the mouse

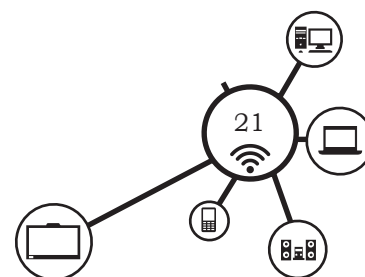
It will appear as you move it around the screen.

I This mouse pointer will also appear as you move it around the screen, particularly if it is over text. (This shape can be seen when you are about to type text.).

☞ While working on a web browser, the pointer change to a pointing finger symbol as moved it over the page. This identifies a hyperlink. Click the left mouse button once to follow the hyperlink to another page.

### Mouse operations

All mouse do not use the same mechanical operation but all of them accomplish the same task. Some of them use a tracking ball at the bottom and some of them use a type of light beam to detect the motion of mouse. Laptops are equipped with a small flat surface or sometimes with a very short stick for performing same job as mouse. The most conventional kind of mouse has two or three buttons on its top. These buttons are used for different actions. Using left button of mouse different operations like selection, dragging, moving and pasting can be done. With the right button we can open a context menu for an item, if it is applicable.



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The common mouse actions are as follows:

- (a) **Click or left click:** It is used to select an item. Press down once on the left button with your index finger.
- (b) **Double click:** It is used to start a program or open a file or trigger an action.
- (c) **Right click:** It is used to display a set of commands and available options. Move the mouse pointer to the desired position, position your middle finger on the right mouse button, keeping the mouse still, click lightly with the middle finger on the right button.
- (d) **Drag and drop:** It allows to select and move an item from one location to another. Position the mouse on an object, hold down the left side of the mouse, and drag the object.
- (e) **Scroll:** Many applications provide scrollbars on right side of screen if the page length is more than the monitor/screen length. Instead of using page down key or arrow keys, one can use scroll key of a mouse to scroll up or down. If the scroll key is not available, one can click on the scroll bar on the application screen with the left button of the mouse. Use the scroll wheel on the mouse to move the page on the screen up or down.
- (f) **Blocking:** Blocking is another way of selecting text. It is used to select text that needs to be edited or formatted. Click at the beginning of the word or sentence and hold down the left button, then drag along the text and see it being highlighted in black. At the end of the text or sentence release the left button.

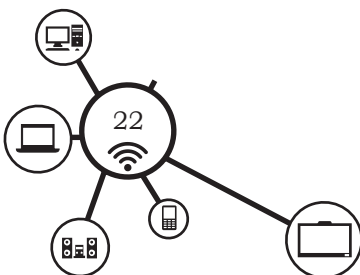
## Typing ergonomics

Typing ergonomics provides the logistic support for efficient and effective typewriting. They are important to attain and maintain accuracy and speed. Some of these factors included are as given as below.

### Sitting posture

While operating the computer keyboard, sit straight, slightly bending your neck forward. Check your comfort

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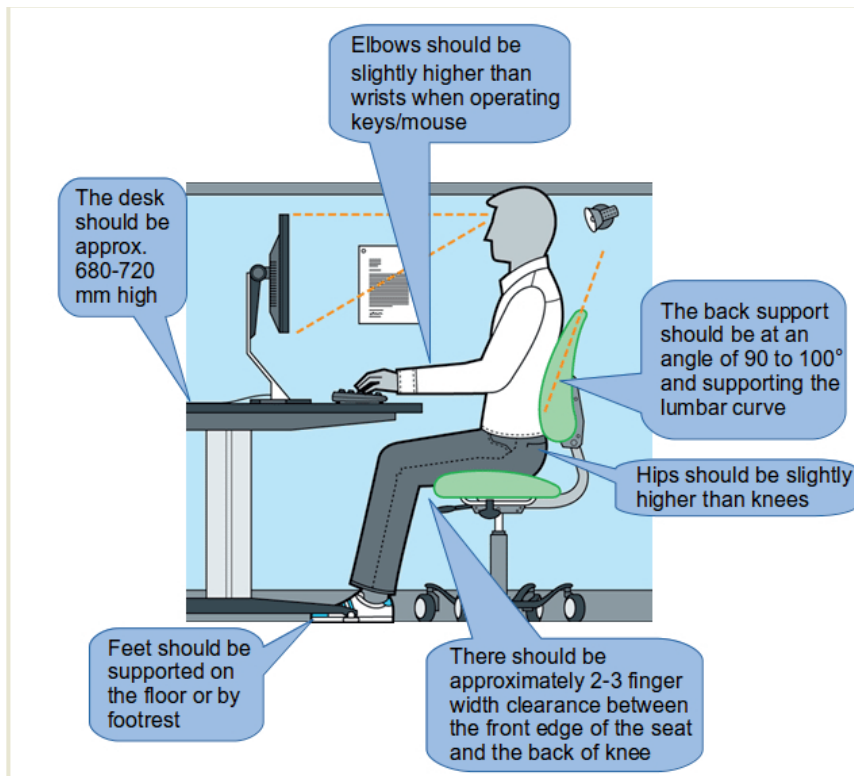


Fig. 2.5: Sitting posture while working on computer

and sitting position of body. Touch the lower portion of your back to the lower portion of the back rest of the chair. Touch both the feet to the floor (Figure 2.5).

### Position of hands

Put your forearms at level with the keyboard and palms down (Figure 2.6). Keep your wrists straight and hang

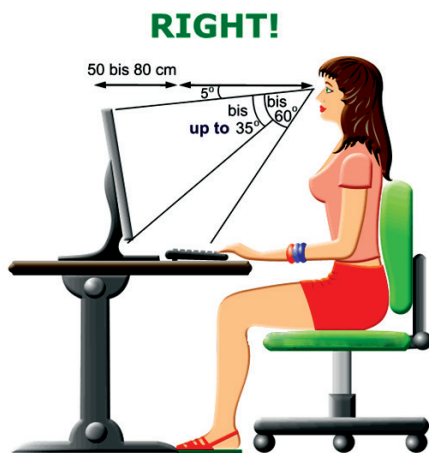
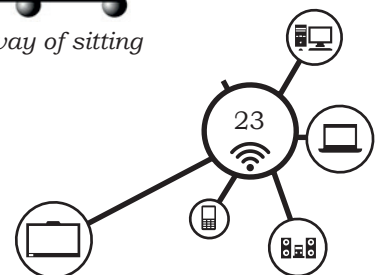


Fig. 2.6 Correct screen angle view



Fig. 2.7 Wrong way of sitting

DATA ENTRY AND KEYBOARDING SKILLS





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your elbows naturally. Don't touch the elbows to the body nor be too far away from the body (Figure 2.7). Bend at about a 90 degree angle.

### Monitor placement

Do not bend your neck while working on the monitor and keep the upper border of screen at eye level. The distance of screen from the user depends on the size of the screen. Keep an approximate distance of about 60–65 cms for 17 inches screen.

### Mouse and keyboard placement

Keep the keyboard and mouse together at an approximate distance of 20 cms, which will help in smooth and effortless operation of keyboard. Same height of keyboard, mouse and elbows helps the users to work comfortably.

### Chair and table placement

Adjust computer chair and table to an optimal height. The chair of the computer user must be supportive to his/her lower back. Keyboard and vibrating devices, such as printers, should be on separate tables. The computer table should also have sufficient space for your legs. With the correct ergonomics, typewriting becomes a natural phenomenon without causing unnecessary fatigue.

### Placement of matter to be typed

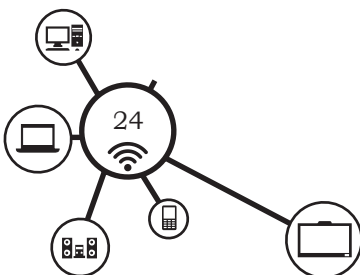
Place the matter for typing to the left or right side of the keyboard preferably on a Copy Holder which has a sloping surface.

### Positioning of fingers on the keyboard

As typing is equivalent to pen or pencil now-a-days, mastery of computer keyboard has become obvious. Mastery typewriting skills means to attain necessary knowledge and skill of keyboard operation by correct positioning of fingers.

In the Home Row Approach, also called Horizontal Approach, all the eight fingers of both the hands rest on

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Home Keys during the keyboard operation. The fingers are trained to make the correct movement to the other keys in such a way that each finger returns immediately to its home key after it has depressed the corresponding key in any other row. The thumb of the right hand is used to operate the Space Bar.



Fig. 2.8: Allocation of keys to fingers

The keyboard learning process starts from the second row (Home Row) followed by the Third Row (Upper Row), First Row (Bottom Row) and the Fourth Row (Number Row). The fingers of both the hands have to operate the keys allotted to them on each row (Figure 2.8). It must be remembered that each finger has to operate only the key allotted to it.

### Allocation of keys to fingers on the second row (home row)

Place four fingers of each hand on Home Keys as shown in Figure 2.9. The remaining two keys 'g' and 'h' on the second row are operated by the forefingers (Index Finger) of left and right hand, respectively.

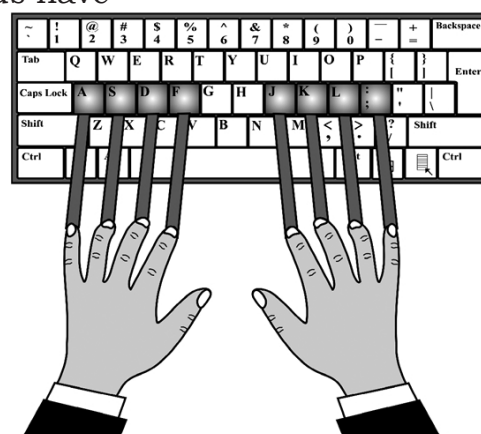


Fig. 2.9: Positioning of fingers on the Home row

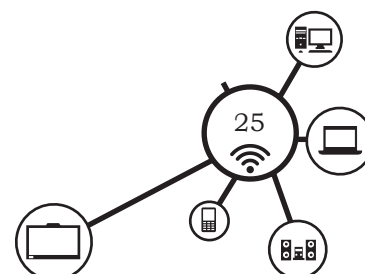
## Let's Practice 1

### A. Type the following in double line spacing to get perfection over the Home Row.

asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh  
 asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh  
 asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh

#### Instructions:

- Do not look at the keyboard
- Each letter should come beneath the other
- Concentrate your mind on the text
- Typing should be done quite accurately with constant rhythm
- Repeat this process until mastery over this exercise



## NOTES

### Let's Practice 2

#### B. Type the following in double line spacing to get perfection over the Home Row.

asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh  
 asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh  
 asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh  
 asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh  
 asdfg;lkjh asdfg;lkjh asdfg;lkjh asdfg;lkjh fads lall  
 dask sad slak flask fads lall dask sad slak flask  
 fads lall dask sad slak flask fads lall dask sad slak  
 flask fads lall dask sad slak flask fads lall dask sad  
 slak flask fads lall dask sad slak flask fads lall dask  
 sad slak flask

#### Instructions

- Do not look at the keyboard
- Each letter should come beneath the other
- Concentrate your mind on the text
- Typing should be done quite accurately with constant rhythm
- Repeat this process until mastery over this exercise

Undertake repeated practices of typewriting the character on the Home Row without looking at the keyboard.

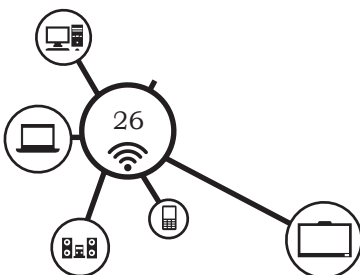
### Allocation of keys to fingers on the third row (upper row)

The next step is learning the key-reaches from the Home Row to the row above it. The learning begins with the reaches from 'a' to 'q' by left hand little finger and from ';' to 'p' by right hand little finger. This is followed by the placement of the third fingers (Ring fingers) to the adjoining keys 'w' and 'o' and so on (Figure 2.10). In the third row, the allotment of fingers is explained below.

LF	RF	MF	IF	IF	IF	IF	MF	RF	LF
Q	W	E	R	T	Y	U	I	O	P

Fig: 2.10: Allocation of fingers on the third row

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While typing on the upper row, keep fingers on home row. Lift fingers of left hand and strike upper row key one by one and type

q w e r t (r and t are typed by the same finger)

Now, again lift the fingers of right hand and strike upper row keys one after another and type

p o i u y (u and y are typed by the same finger)

You should ensure that one finger should move at a time, while other fingers should remain on the home row.

### Allocation of keys to fingers on the first row (bottom row)

After learning how to operate keys on Home Row and Third Row, the next step is to learn how to operate keys on the First Row. Keys Z, X, C, V, B, N, M, Comma, Full Stop and '/' sign are located on this row.

#### Let's Practice 3

##### A. Type the following words and sentences in double line spacing to practice the Upper Row of the keyboard.

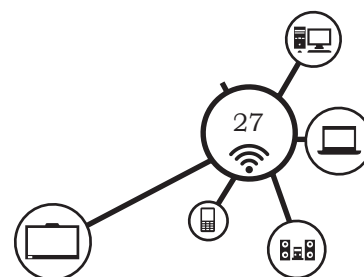
*qwert poiuy qwert poiuy qwert poiuy qwert poiuy qwert poiuy  
qwert poiuy qwert poiuy post quite type quay poleripe hope  
wait role what show flow goal wool post quite type quay  
pole ripe hope wait role what show flow goal wool self help  
is the order of the day. Self helps the order of the day the  
writer was happy, the writer was happy.*

In the earlier two rows, all the eight fingers of both the hands were used to operate the keys. But while typewriting on the First Row, little finger of left hand is not used, i.e., no key is assigned to it. So, from the Home Row, turn downwards the Ring Finger of left hand and strike key 'z'. Similarly, type keys 'x' and 'c' with middle and forefinger, respectively. Type full stop, comma, m, n with little, Ring, Middle and forefinger of right hand, respectively, which will appear as given below.

z x c . , m n

Alphabets 'v' and 'b' are to be typed with forefinger of left and right hand, respectively.

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Allocation of keys on bottom row is depicted below:

LF	RF	MF	IF	IF
-	Z	X	C	V

IF	IF	MF	RF	LF
B	N	M	,(Comma)	.(Fullstop)

## Let's Practice 4

### A. Type the following words in double line spacing to practice the Bottom Row of the keyboard.

gameroxytimetaximindcampjumplazy,size;zeal,haze,zone;zinc.  
 Gameroxytimetaximindcampjumplazy,size;zeal,haze,zone;zinc.  
 on,no,man,can,child,chalk,number,member,remember,general  
 on,no,man,can,child,chalk,number,member,remember,general

## Allocation of keys to fingers on the Fourth Row (Number Row)

In this row, type 1, 2, 3 with little, ring and middle fingers of the left hand, respectively, and 4 and 5 with the index finger (forefinger). Similarly type 0, 9, 8 with little, ring and middle fingers of right hand, respectively, 7 and 6 with index finger (forefingers).

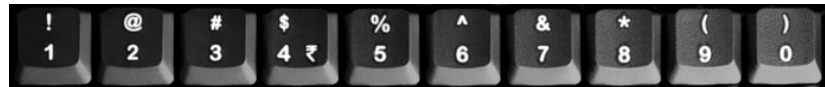
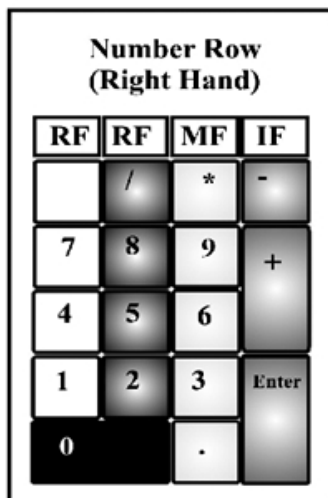


Fig. 2.11 Numeric Keypad on keyboard

LF	RF	MF	IF	IF
1	2	3	4	5

IF	IF	MF	RF	LF
6	7	8	9	0



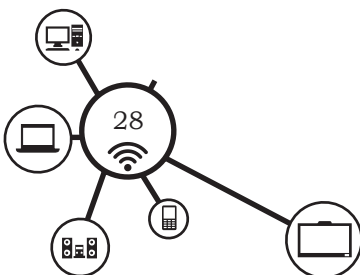
Fig. 2.12: Positioning of fingers on the number row

## Using numeric keypad

Efficient and effective use of numeric keypad is important in numeric data entry. The numeric keypad has four columns and five rows. The row which has 4, 5, 6 and + is called Home Row. This is the row which is initially practiced by a touch typist. The allocation of keys on this row is as shown in Figure 2.12.

On a numeric keypad, the number 5 is the guide key. It has a small raised tangible mark which serves as a guide for the touch typist in the placement of fingers on other keys.

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Allocation of rest of the keys on numeric keypad '0' is to be pressed by the right-hand thumb. One can also make use of calculator keyboard for numeric keypad practice.

## Successful keyboarding tips

The following points may be kept in mind for successful keyboarding techniques.

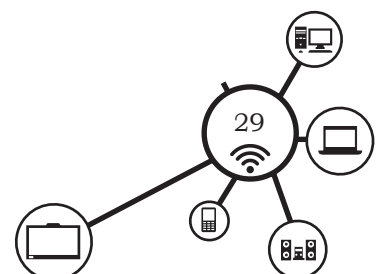
- Press the keys with feather touch and do not put undue pressure.
- Rest your fingers on Home row while typing.
- Allow your fingers to fall naturally on the keys so that each rests on top of the next key along the same horizontal row.
- While typing, release the key immediately as soon as you press it. Holding the key for long time, will repeatedly type the same character.
- Do not look at the keyboard while practicing.
- Press the keys with equal intervals of time in rhythm.
- Press the keys only with the fingers allotted for them.
- While pressing a key, say slowly pronounce the character on the key.
- Do not take any mental stress while typing.
- Secure typing ergonomics.
- Maintain patience if committed mistake at initial stage.
- Maintain a balance between speed and accuracy, as both are equally important. Do not sacrifice accuracy for speed.
- To gain mastery of computer keyboard, undertake repeated practice of typewriting words, sentences, passages and figures without looking at the keyboard.

## Check your typing ergonomics

- Do you sit in the correct posture while working on computers? Yes/No
- Is your desk and chair ergonomic, and if not, have you adjusted them? Yes/No

DATA ENTRY AND KEYBOARDING SKILLS

## NOTES





## NOTES

- Are your computer table, mouse, keyboard placed in correct position? Yes/No
- Is your computer/laptop correctly placed on your desk? Yes/ No
- Have you arranged your tools on your desk to prevent twisting and reaching? Yes/No

### Using typing software

There are many software available which are free of cost and are customised to learn typing efficiently and effectively.

### Introduction to Rapid Typing Tutor

Rapid Typing Tutor is a Free and Open Source Software (FOSS) designed to learn typing skills on the computer. It is free to use and share with others for free, but only by using the original distribution package. Learning to type is fun with the typing game included with Rapid Typing Tutor.

### Touch typing technique

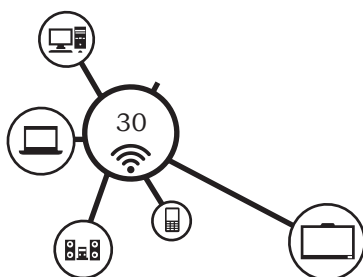
Touch typing improves typing speed and accuracy. A touch typist never looks at the keyboard. The fingers hit the right keys by habit. The typist is entirely focused on the text being typed, reading the words and phrases as the fingers type the text reflexively. Touch typing can be learned by performing special exercises.

**Stage one** of the process begins with learning the Home Row of the keyboard (the row beginning with the Caps Lock key). Looking at the keyboard is strictly forbidden. This is followed by learning the lower and upper rows, the numbers row, uppercase letters and special symbols.

**Stage two** involves memorising frequently used syllables and typing words containing these syllables.

**Stage three** involves typing actual text to perfect the skills acquired.

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## Touch typing rules



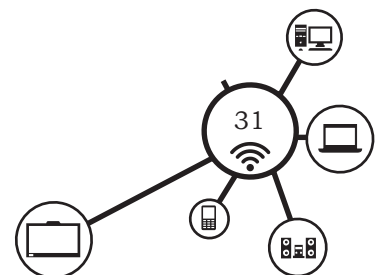
Fig 2.13: Keyboard layout for learning typing

- The F, D, S, A, and J, K, L, ; keys (on a QWERTY keyboard) represent the base position. Keyboards usually have small protrusions on the F and J keys. They help your fingers locate the base position without looking at the keyboard. Try to return your fingers to the base position after each keystroke.
- Colour coding shows which finger should press each key (see the picture above). The left index finger is reserved for all the red keys. The right index finger is reserved for green keys, and so forth. Use the thumb of whichever hand is more convenient for you to press the Space key.
- The base position on the numeric pad is the number 5 key for the middle finger, 4 for the index finger, and 6 for the ring finger. The numeric pad simplifies and speeds up numerical data input.
- Uppercase letters and symbols appearing on keys in the numbers row are typed by one hand with the little finger of the other hand holding down the SHIFT key.
- Do not look at the keyboard. Try to locate the right key with your fingers.

After configuring settings in Wizard, Rapid Typing's main window will appear as shown in Figure 2.14.

Let us familiarise with the **Typing Tutor** interface. The window is composed of the following controls:

**Taskbar** allows to set or change some basic options to start a lesson (keyboard layout, level, lesson, and background).



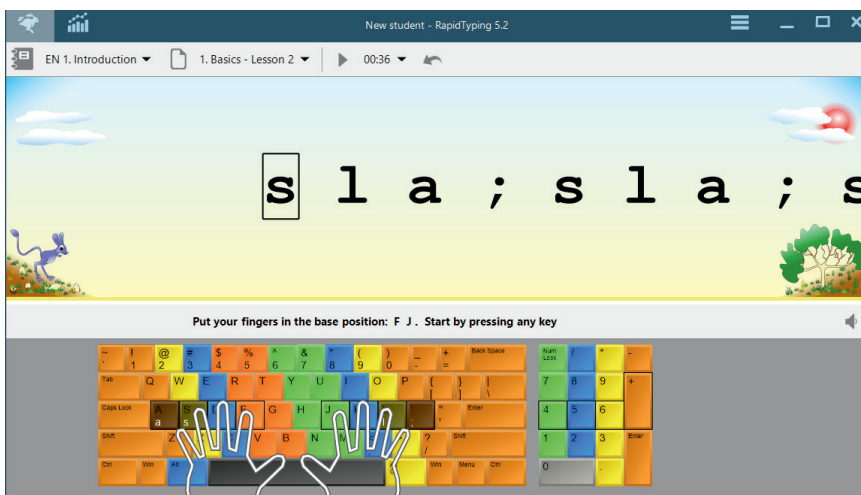


Fig 2.14: Rapid Typing's main window

**Three horizontal buttons** in the top-right corner (Options, About and Help) can display the corresponding dialogs.

**Three vertical buttons** in the top-left corner (Lesson, Statistics and Lesson Editor) are used for switching between current lesson, User Statistics and Lesson Editor.

**Text panel** is the area where the text to be typed is displayed. You can easily edit it in Lesson Editor, if necessary.

**Lesson control panel** includes several controls to pause/resume the current lesson, enable/disable sounds, and adjust the sound volume.

**Keyboard** is the virtual keyboard that will help you to learn touch typing with all 10 fingers. You can customise its appearance in the 'Lesson' section.

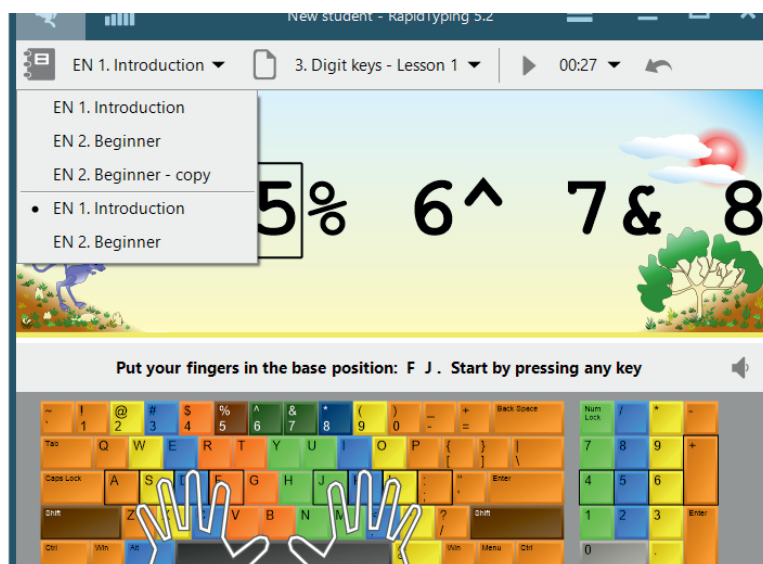


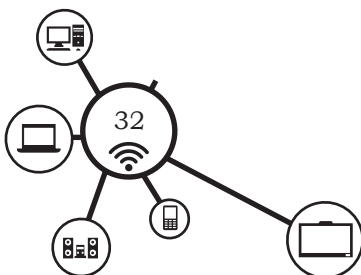
Fig 2.15: Beginning or Introduction to Rapid Typing tutor

## Begin lessons

To start your first lesson in **Typing Tutor**, select the keyboard layout, level and lesson category on the Taskbar shown below.

There are four drop-down lists in the top-left corner of the screen. Therefore, moving from left to right, the procedure will be as follows:

- Choose the layout (i.e., the language of keyboard); it's "EN" on the picture above.
- Then, select a level (there are three levels available—Introduction, Beginner); it's "Beginner" on the picture above.



- Specify lesson category (depending on the level chosen, the available categories may vary).
- Finally, choose the lesson that you would like to study.
- When everything is ready, press any key, then put your fingers in the initial position shown on the keyboard and start typing the text.

There is also the Lesson Control Panel just above the Keyboard from where you can suspend/resume the current lesson or adjust the sound effects:

- To start/resume a lesson, click the ► button just above the top-left corner of the keyboard.
- To pause a lesson, click the || button that is displayed instead of the ► button.
- To restart the current lesson, click the ↺ button, which is the far right button on the Taskbar.
- To enable/disable sounds in the current lesson, click the 🔊 button located above the top-right corner of the keyboard and set the sounds volume using the vertical slider.

## Notes

- You can also set the background image for the Text Panel by choosing an option (**Animation**, **Wallpaper** or **Plain**) from the dropdown list on the Taskbar in top-right corner of the window.

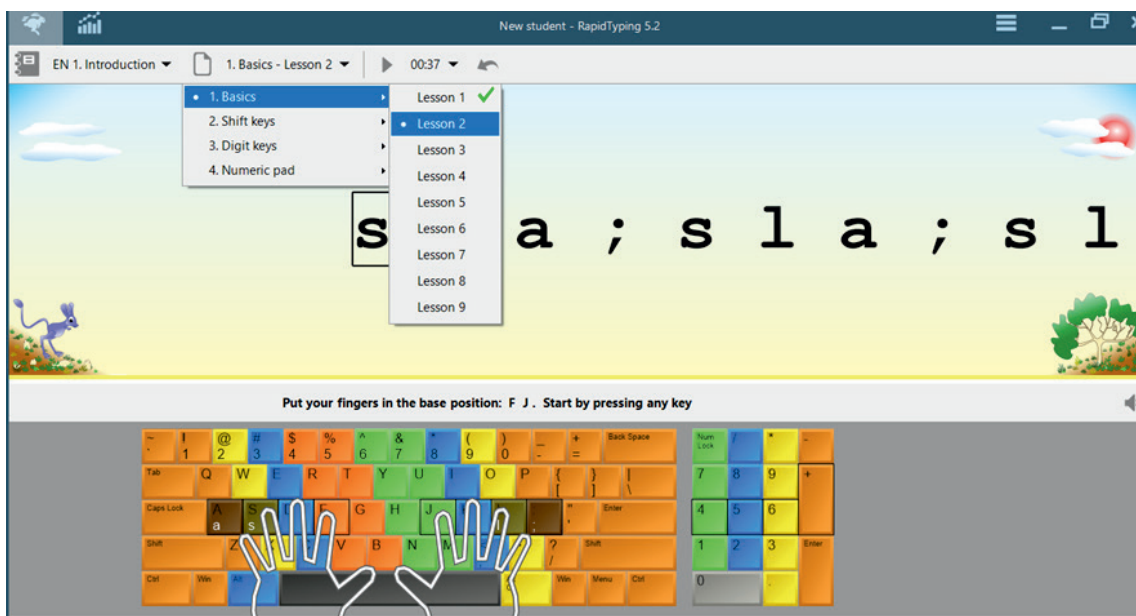
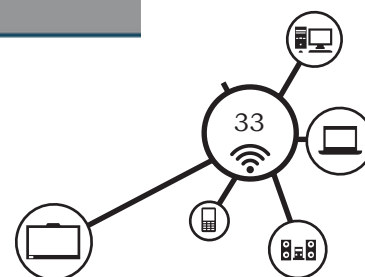


Fig 2.16: Selecting a Lesson



- While making your way through the lessons, you will probably mention two progress bars (one in green and another in yellow) on the Lesson Control Panel.
- The green progress bar (upper) shows the percentage of completion for the current lesson, and the yellow progress bar (lower) reflects the acceptable time period for typing a single character.
- When the yellow progress bar runs out at least once, **Typing Tutor** records that you have broken the rhythm at this character.

### How to interpret your results

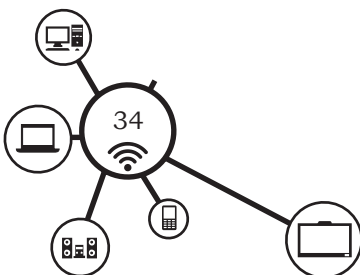
Each time you complete a lesson, the Results dialog window displays your achievements in this lesson.

The Results dialog window consists of two tabs called Rating and Errors. The first one looks like shown in figure 2.17

You can review your metrics: overall skill level between *Beginner* and *Champion* (upper slider indicator) as well as words per minute, characters per minute and accuracy in per cent (three remaining sliders below). In the text area, you can check your mistakes that occurred during the lesson.



Fig 2.17: Results dialog window for your achievements





The colour indication is as follows:

- **Green** letters denote right inputs.
- **Yellow** letters stand for right inputs exceeding the acceptable timeframe.
- **Red** letters denote wrong inputs within the acceptable timeframe.
- **Orange** letters indicate wrong inputs that also exceed the acceptable timeframe (it's the worst result).

### **Error window**

On the Error tab you can view your detailed statistics for the current lesson. This tab shows your errors and delays percentage both in the graphical and table view. This will help you to better understand which letters are still hard for you to type. You can switch between the Errors in percent chart (by clicking the button just below the tabs) and Delay in percent chart (by clicking the button).

On the bar chart, the X-axis corresponds to the letters used in the lesson, while the Y-axis shows the errors or delays related to each letter. If there aren't any errors and delays for a certain character, it won't show up on the chart.

### **Note**

When you select a row in the table, the corresponding bar on the chart will be highlighted. When you select a column in the table, the chart will show either errors or delays.

Then, you can click the Next button below to proceed to the next lesson, Repeat to go through this lesson once again, or Records to check whether your results are great enough for **Typing Tutor's** Hall of Fame.

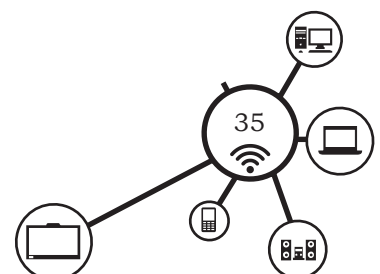
To view the results of all the lessons that you've already completed (not only the current one), go to the Statistics section.

## **View and analyse statistics**

To view the results of all the lessons that you have already completed: (i) Open the Statistics section, and (ii) choose the button in the top-left corner of the main window. The Statistics screen will open as shown in Figure 2.18.

DATA ENTRY AND KEYBOARDING SKILLS

## **NOTES**



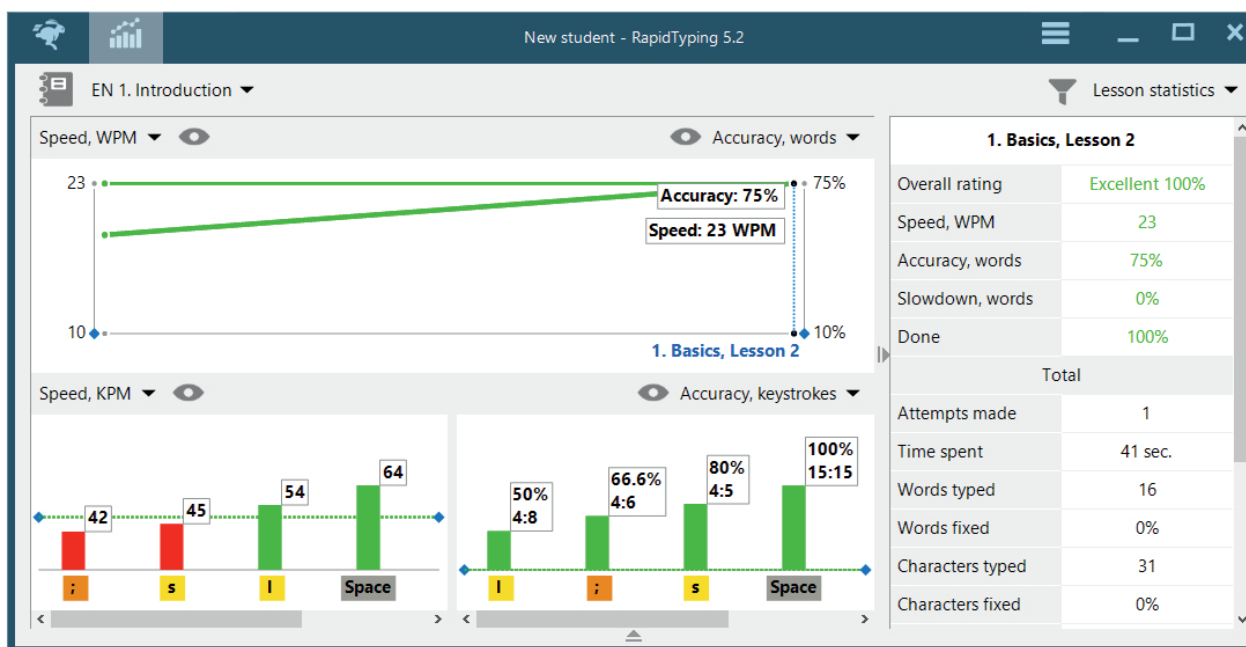


Fig 2.18: Overall statistics and progress of your typing

Here, you can review your overall statistics and progress both in graphical and table view. The following options are available:

- Click the button in the top-left corner of the window (or press Ctrl+1 on your keyboard) to see your CPM speed (characters per minute) progress.
- Click the button (or press Ctrl+2 on your keyboard) to see your WPM speed (words per minute) progress.
- Click the button (or press Ctrl+3 on your keyboard) to see how your typing accuracy changes in the different lessons.



Fig 2.19: Statistics for a particular lesson

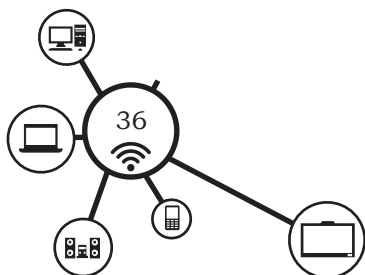




Fig 2.20: Overall rating

- To remove a metric from your statistics, select a lesson in the right table and click the button (or press Delete on your keyboard).
- On the Taskbar in the upper part of the window, you can choose keyboard layout, level and course for which you'd like to see statistics.
- You can also switch between the Lesson Group (that is, statistics by lessons) and Day Group (statistics by days) options in the far right drop-down on the Taskbar.

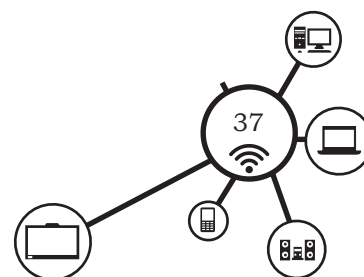
### Detailed lesson statistics

To review the statistics for a particular lesson, choose this lesson in the right table and click the Lesson tab in the top-right corner. The Lesson tab contains the same data that are displayed upon completion of every lesson. For details, see How to Interpret Your Results section.

### Working with lesson editor

To open Lesson Editor, click the button in the top-left corner of the Rapid Typing window. Lesson Editor window is composed of the following controls:

- Taskbar which allows to select the keyboard layout and level of the lesson to edit.
- Toolbar which includes Basic\_lesson1 or lesson 2...., for inserting text.



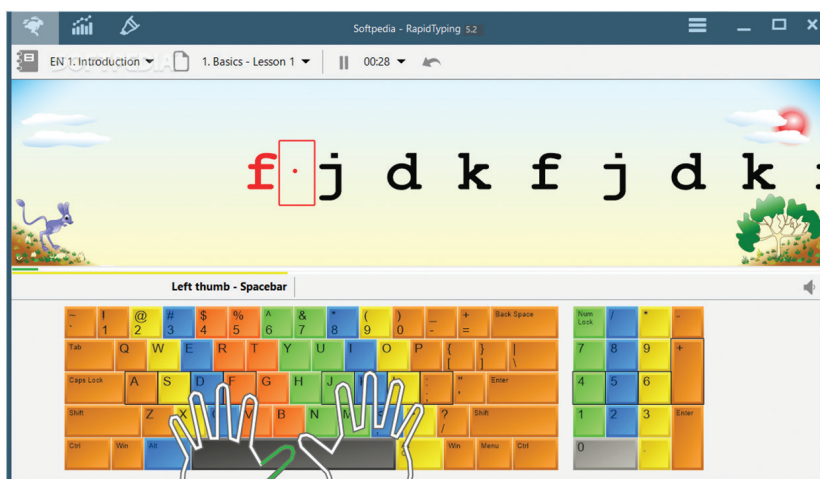


Fig 2.21: Typing using the basic keys

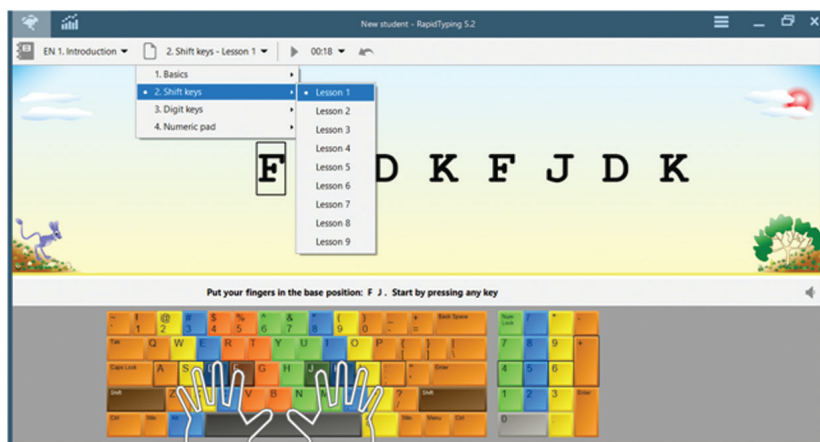


Fig 2.22: Type using Shift key

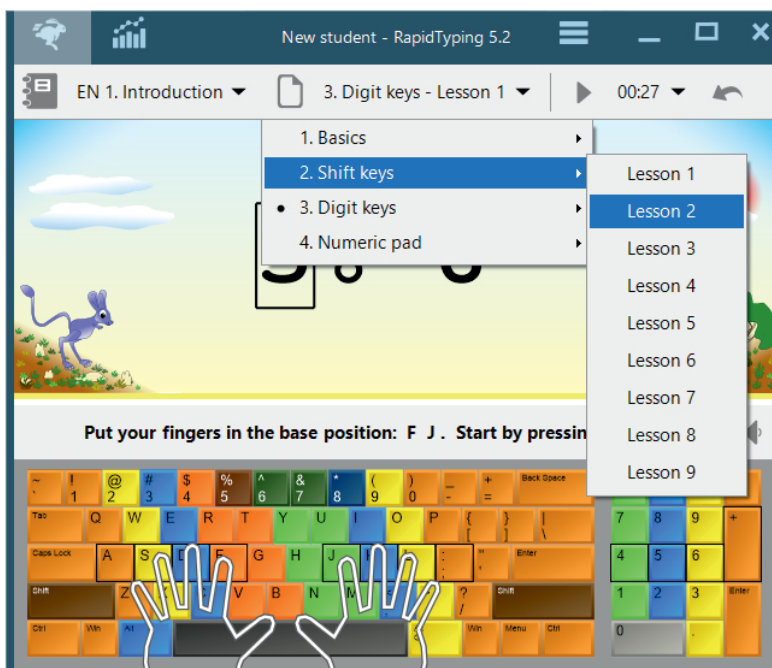
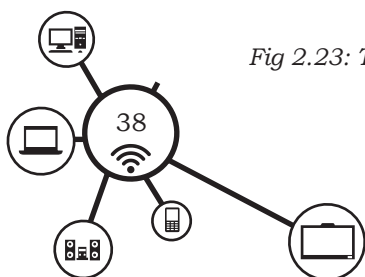


Fig 2.23: Type using Digit key

- Navigation Tree which shows the existing courses and lesson hierarchy.
- Text Panel, an area where you can edit the text of the lesson currently selected in the Navigation Tree.
- Lesson Metrics which displays the number and percentage of words, characters, spaces and specific characters in the lesson.
- Keyboard, which is the virtual keyboard that highlights the characters used in the currently selected lesson. You can customise its appearance in the 'Lesson' section.



Lesson Editor makes all the lessons fully customisable. You can add, insert, change, and delete lessons, group them in courses, and review the corresponding metrics. You can type using the basic keys, such as Shift keys, Digit keys and Numerical pad.

### Calculating the typing speed

The typing speed can be measured with different accuracies, such as

- How many words are typed for a certain time period (the least accurate)?
- How many characters are typed for a certain time period?
- How many keystrokes are made for a certain time period (the most accurate)?

Also there are

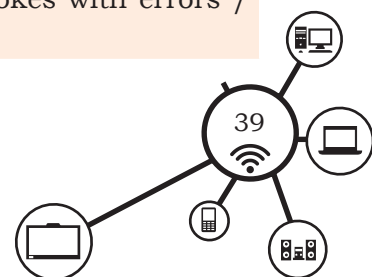
- Simple speed (Gross speed)
- Net speed (takes into account the errors)

The following table lists the detailed descriptions of typing speed types.

Types	Description	Formula
WPM	the number of words typed in a one minute period of time	$WPM = ( \text{Words without errors} + \text{Words with errors} ) / \text{Time spent in minutes}$
Net WPM	the WPM without words with errors	$\text{Net WPM} = WPM - ( \text{Words with errors} / \text{Time spent in minutes} )$
CPM	the number of characters typed in a one minute period of time	$CPM = ( \text{Characters without errors} + \text{Characters with errors} ) / \text{Time spent in minutes}$
Net CPM	the CPM without characters with errors	$\text{Net CPM} = CPM - ( \text{Characters with errors} / \text{Time spent in minutes} )$
KPM	the number of keystrokes in a one minute period of time	$KPM = ( \text{Keystrokes without errors} + \text{Keystrokes with errors} ) / \text{Time spent in minutes}$
Net KPM	the KPM without keystrokes with errors	$\text{Net KPM} = KPM - ( \text{Keystrokes with errors} / \text{Time spent in minutes} )$



Fig 2.24: Type using the Numeric Keypad





A student typed 240 characters per 2 min with errors in 20 characters.

Simple speed = 240 characters / 2 min = 120 cpm

Net speed = 120 cpm - ( 20 errors / 2 min ) = 100 net cpm

### Typing accuracy

Typing accuracy is defined as the percentage of correct entries out of the total entries typed. The following table lists the different formulas for the typing accuracy calculation.

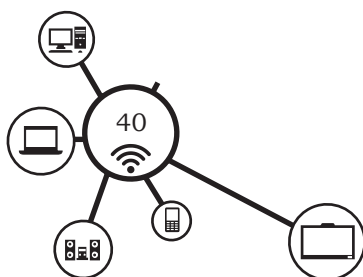
Description	Formula
Accuracy in the words, percent	Accuracy = ( 100% - Words with errors * 100%) / Total number of words
Accuracy in the characters, percent	Accuracy = ( 100% - Characters with errors * 100%) / Total number of characters
Accuracy in the keystrokes, percent	Accuracy = ( 100% - Incorrect keystrokes * 100%) / Total number of words

Sometimes it's convenient to evaluate the typing accuracy in the Errors (percentage errors). See table below—

### Typing rhythm

Description	Formula
Errors in the words, percent	Errors % = Words with errors * 100% / Total number of words
Errors in the characters, percent	Errors % = Errors = Characters with errors * 100% / Total number of characters
Errors in the keystrokes, percent	Errors % = Incorrect keystrokes * 100% / Total number of keystrokes

In the touch typing techniques the typing rhythm is very important. Typing rhythm means the keystrokes



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should come at equal intervals. To control the constant typing speed, the Slowdown indicator is used. The following table shows the different formula for the Slowdown (percentage slowdowns) calculation:

Description	Formula
Slowdown in the words, percent	Slowdown % = Words with delay * 100% / Total number of words
Slowdown in the characters, percent	Slowdown % = Characters with delay * 100% / Total number of characters
Slowdown % in the keystrokes, percent	Slowdown % = Keystroke delay * 100% / Total number of keystrokes

## Overall rating calculation

Overall rating (%) = ( Net speed / Course goal: Speed) \*100% where:

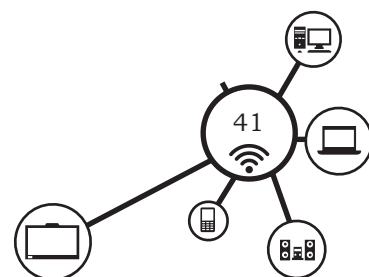
- Net speed is Net WPM, Net CPM or Net KPM, the value depends on the current options
- Course goal: Speed is customised in the options for each course

### (a) Good typing speed

An average professional typist types usually in speeds of 50 to 80 wpm, while some positions can require 80 to 95 and some advanced typists work at speeds above 120 wpm.

The fastest typing speed on an alphanumeric keyboard, 216 words in one minute, was achieved by Stella Pajunas in 1946.

As of 2005, writer Barbara Blackburn was the fastest alphanumeric English language typist in the world, according to *The Guinness Book of World Records*. Using the Dvorak Simplified Keyboard, she maintained 150 wpm for 50 minutes, and 170 wpm for shorter periods. Her top speed was 212 wpm.



## Practical Exercise

### A. Using your left-hand type

asdfasdfsdfasdfsdfasdfsdfasdfsdfasdfsdfasdfsdf  
fdsafdsafdsafdsafdsafdsafdsafdsafdsafdsafdsafds

### B. Using your right-hand type

[illegible]

### Using your both handstye

ghghghghghghghghghghghghghghghgh

**C. Stretch your left index finger up/out to T (look on the keyboard) and type**

tht h t h t h t h t h t h t h t h t h t h t h t h t h t h t h

#### D. Using your left-hand type

deed frf deer reed red deed frf deed reed red deed frf deer  
reed red

### E. Using your right-hand type

ujkiikjujkikjuujkiikjujkikjuujkiikjujkikjuujkiikjujkikjuuj  
kiikjujkik

### F. Using both your hands type

juut jut jute kiit kit kite juut jut jute kiit kit kite juut jut  
jute kiit kit kite jud judder jug jugger judge judged juud  
judder jug jugger judge judged igh high thigh ight fight  
right fright igh high thigh ight fright right fright

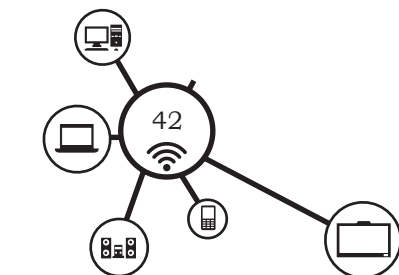
**A common reference would be**

<http://www.typing-lessons.org>

## Check Your Progress

### A. Multiple choice questions

1. Which of the following is not a key for punctuation marks?
  - (a) comma (,)
  - (b) period (.)
  - (c) semicolon (;)
  - (d) equal sign (=)
2. Which of the following is not an arrow key?
  - (a) top (^)
  - (b) down (↓)
  - (c) right (→)
  - (d) left (←)



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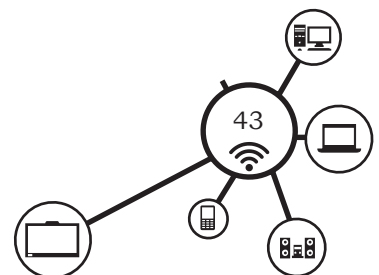
3. Which of the following operation is not performed by a mouse?
  - (a) Left Click
  - (b) Right Click
  - (c) Middle Click
  - (d) Double Click
4. In the Rapid typing tutor, which of the following is not true?
  - (a) Green letters denote right inputs.
  - (b) Yellow letters stand for right inputs in extra time.
  - (c) Red letters denote wrong inputs within time.
  - (d) Orange letters indicate wrong inputs with in time.
5. The lesson control panel can be used for \_\_\_\_\_.
  - (a) animation
  - (b) enable or disable sounds
  - (c) plain
  - (d) background

#### **B. Fill in the blanks**

1. A touch typist knows the location on the keyboard through \_\_\_\_\_ memory.
2. The typing speed is measured in \_\_\_\_\_.
3. Alphabets (A–Z) and numbers (0–9) are known as \_\_\_\_\_ keys.
4. Del key deletes the character at the \_\_\_\_\_ cursor position.
5. A standard keyboard has \_\_\_\_\_ Function keys.
6. Numeric keypad is used to enter \_\_\_\_\_ data.
7. Page Up key is used to shift the \_\_\_\_\_ one page up.
8. Pressing the End key moves the cursor to the \_\_\_\_\_ character of the line.
9. On numeric keypad '0' is to be pressed by the \_\_\_\_\_ thumb.
10. The numeric keypad has \_\_\_\_\_ columns and \_\_\_\_\_ rows.

#### **C. State whether the statements given below are True or False.**

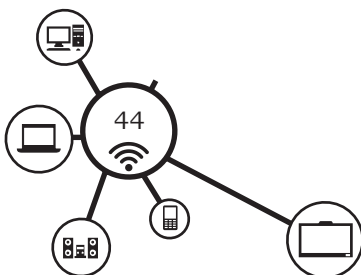
1. The Alt key is always used with the other key.
2. There are 5 arrow keys on the keyboard.



3. The Backspace key is used to delete the character on the right to the cursor.
4. Caps lock key is a toggle key.
5. The control key is used in conjunction with other keys.
6. Enter key is also known as Return key.
7. The function keys have different meaning in different software.
8. The keys 'F' and 'J' are known as guide keys.
9. There are two Caps Lock keys on the keyboard.
10. The mouse has two scroll buttons.
11. PageDown key is used to move the cursor on next page.
12. Pressing the Home Key, moves the cursor to the first character in the document.
13. On a numeric keypad, the number 8 is the guide key.
14. In Rapid typing tutor, the right input entered is denoted by yellow color.
15. In Rapid typing tutor, the right input entered in exceeding time frame is denoted by Red colour.

#### **D. Short answer questions (50 words)**

1. Discuss the various types of keys available on a computer keyboard.
2. Differentiate between Home Keys and Guide Keys.
3. What do you understand by Guide Keys? Name the Guide keys of a
  - (a) computer keyboard
  - (b) typewriter
4. Explain the role of typing ergonomics.
5. Why the use of various typing software is common now-a-days?
6. Mention the finger allocation of keys of the Bottom Row of computer keyboard.







# Digital Documentation

## INTRODUCTION

In earlier days, manual typewriters were used for typing a document, which was replaced by electronic typewriter and now a computer is used for this purpose. Word processing, data processing, communication and presentation are the most common activities performed in an office. Office productivity software is used to perform these activities effectively.

A document is a paper with written contents and the process of preparing a document is called documentation. Documentation is required to preserve the contents for a longer period or to be used as evidence. The documents can be letters, reports, thesis, manuscripts, legal documents, books, etc. A handwritten document can have certain disadvantages like understanding the specific handwriting. With the advancement in computer hardware and software technology, the process of handwritten documentation consequently automated to computer word processing.

A data entry operator should possess the skills to use the office productivity tools with a good typing speed. Although typing skill is the essential criteria for

## Word processing

The term word processing was invented by IBM in the late 1960s. By 1971 it was recognised by the *New York Times* as a "buzz word". (source: <http://www.computernostalgia.net/articles/istoryofWordProcessors.htm>)

data entry operator, a little care has to be taken while using the word processing software. A typist used to hit the space bar a number of times to arrange the text. This is not required in the computer, as the automated features for editing and formatting are available.

*Word processing* is the use of computer software to enter, edit, format, store, retrieve and print the document. The document can be a letter, notice, report, business correspondence, etc.

A word processor is a computer application used for the production of printable material. In the beginning WordStar was the most widely used word processing software. There are several limitations to using a typewriter, which are as given below.



Fig. 3.1: Typewriter

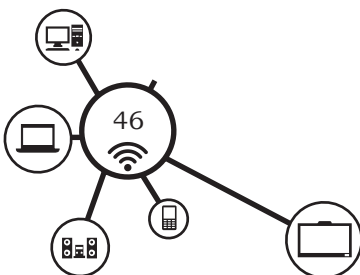
1. In case of any typing error, the whole sheet is required to be typed again.
2. To send same letter to two or more persons with different addresses requires multiple typing efforts.
3. Typewriter does not have all the required characters or symbols. It is not possible to type all the characters using the typewriter.

4. It is not possible to produce a document in the desired format using a typewriter.

In the year 1974 **Xerox** company had introduced an electronic typewriter, as an attempt to solve the problems of the manual typewriter to some extent (<http://www.computernostalgia.net/articlesHistoryofWordProcessors.htm>).

In electronic typewriter, it is possible to make changes in the content, make multiple copies with minor changes. But it has a limitation of very small size screen to display the contents. Its screen can view only one or two lines. In late 1970s, with the development of

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computer software technology, word processing software was introduced. In this software the document can be navigated, edited, formatted and printed. The modern word processors take advantage of a GUI (graphical user interface) providing some form of what-you-see-is-what-you-get (WYSIWYG) editing. This means, the special effects on text are also visible on the screen.

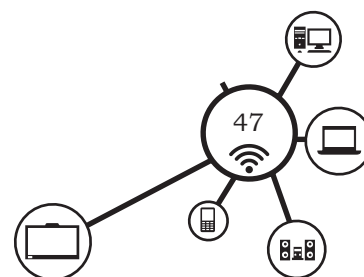
Word processing software not only provides basic ability to enter and modify the text but also provides efficient text manipulation functions that can be used for documentation. Modern word processors provide attractive features. Some of the features provided by popular word processors are as listed below.

- Create, edit, save, retrieve and print the document
- Select and move the text from one place to another in the document
- Copy the text to other places within the document
- Move or copy a selected text from one document to any other document
- Change the font size, font style of the text in the document
- Format paragraphs as well as pages
- Check spelling and grammar
- Create table, modify the size of the selected rows, columns or cells
- Combine one or more documents
- Insert pictures or graphs within the document
- Print the selected text or selected pages of the document

Word processors are being used in the business, home, and education, i.e., in schools and colleges for preparing letters, reports, and many other different types of documents. Students use it for preparing project reports and assignments. Teachers use word processors for preparing question papers and notes.

Office suite is a collection of programs, which are useful for word processing, spreadsheet preparation, presentation, and database management. There are several office suits. We will be using LibreOffice, because of its several advantages.

## NOTES



**LibreOffice** is a free and open source software (FOSS), fully-featured office productivity suite. Currently the versions of LibreOffice is 6.0 and above are available. It is available free for downloading from the website [www.libreoffice.org](http://www.libreoffice.org). This suite is available in many languages and runs on many platforms (Windows, Mac and Linux). It uses Open Document Format (ODF) file format, for publishing documents. LibreOffice components are integrated with each other and have a similar 'look and feel', which makes it easy to use and train. The components of LibreOffice are Writer for word processing, Calc for spreadsheet preparation, Impress for presentation, Base for database management, Draw for drawing and others. LibreOffice includes support for opening and saving files in many common formats including Microsoft Office, HTML, XML, WordPerfect, and PDF.

## Getting started with word processor – Writer

### LibreOffice writer word processor

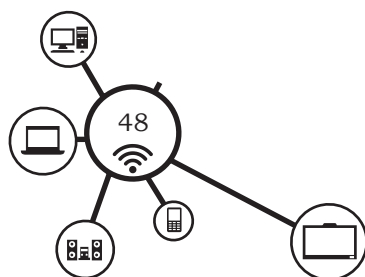
Several word processing software are available to prepare the report. But we will prefer to use LibreOffice Writer, because it is free and an open source software (FOSS) with rich features of word processing. Some word processors are also available freely on the web.

A school teacher arranged a field visit of Class IX students to a National level IT job fair. The purpose was to know the scope and opportunity in IT-ITeS sector.

After the visit the students were given an assignment to submit a report which should include details about the IT-ITeS industry in India with pictures, responsibilities of a Data Entry Operator and the education and experience required to be one. The students had to prepare a draft report on a paper. It had to be typed and printed. Initially the students thought to use a typewriter to type the report, but the typewriter cannot provide the facility to type with various fonts and colours and also they would not be able to add pictures using a typewriter. Therefore, they prepared the report by using the word processing software on the computer. This provides various features

#### Web-based word processor

- Google Docs
- Office 365 Word
- Microsoft OneDrive Word



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to make the report more attractive. It was printable and changes could be made in the file anytime. There are a variety of computer software applications used to prepare such reports, letter in offices, schools and colleges. Let us study how to use the word processing application to prepare a report.

Let us prepare the report in LibreOffice Writer. The presentation of the final report should be as shown in the following **REPORT** page.

### Report

#### **Field Visit to IT Job Fair**

We visited the IT Job Fair, 2018 held at **Kasturchand Park, Nagpur** on 5th July. It was quite a knowledgeable experience for us. We got to know about the IT Sector in depth.

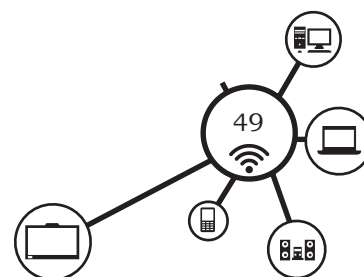
The **Information Technology & Information Technology Enabled Services (IT/ITeS)** sector is a field which is undergoing rapid evolution and is changing the shape of Indian business standards. This sector includes software development, consultancies, software management, online services and **Business Process Outsourcing (BPO)**.

India's IT industry is expected to grow at a rate of 12–14% during 2016–17 as per a report by India's software industry body National Association of Software and Services Companies (NASSCOM.)

Data entry employment is a wide field. Sometimes referred to as a key entry operator, data entry specialist, data entry clerk or an information processing worker. These are also the common core functions and data entry skills of the job.

<b>Job Tasks and Responsibilities</b>	<b>Education and Experience</b>
<ol style="list-style-type: none"> <li>1. Prepare, compile and sort documents for data entry</li> <li>2. Check source documents for accuracy</li> <li>3. Verify and correct data where necessary</li> <li>4. Update and delete unnecessary files</li> <li>5. Combine and rearrange data from source documents where required</li> </ol>	<ol style="list-style-type: none"> <li>1. High school certificate</li> <li>2. Formal computer training an advantage</li> <li>3. Proficient in relevant computer office applications</li> <li>4. Accurate keyboard skills and proven ability to enter data at the required speed</li> </ol>

## NOTES





- |                                                                       |                                                           |
|-----------------------------------------------------------------------|-----------------------------------------------------------|
| 5. Enter data from source documents into computer database, and forms | 7. Knowledge of correct spelling, grammar and punctuation |
| 6. Scan documents into document management systems or databases       |                                                           |

**Double click** means to move the mouse pointer over the desired item and click the left mouse button twice, quickly, click-click.

To prepare the above report, we will first learn how to open LibreOffice Writer and then type the text of the above report.

## Starting LibreOffice Writer

In general, you will find a shortcut of LibreOffice on the desktop or on the *Quick Launch Taskbar*. The process may slightly differ according to the operating system you are using (*Windows or Linux*).

- (i) To start LibreOffice Writer in **Windows**, double click LibreOffice Writer shortcut, which is usually found on the computer desktop (Figure 3.2).

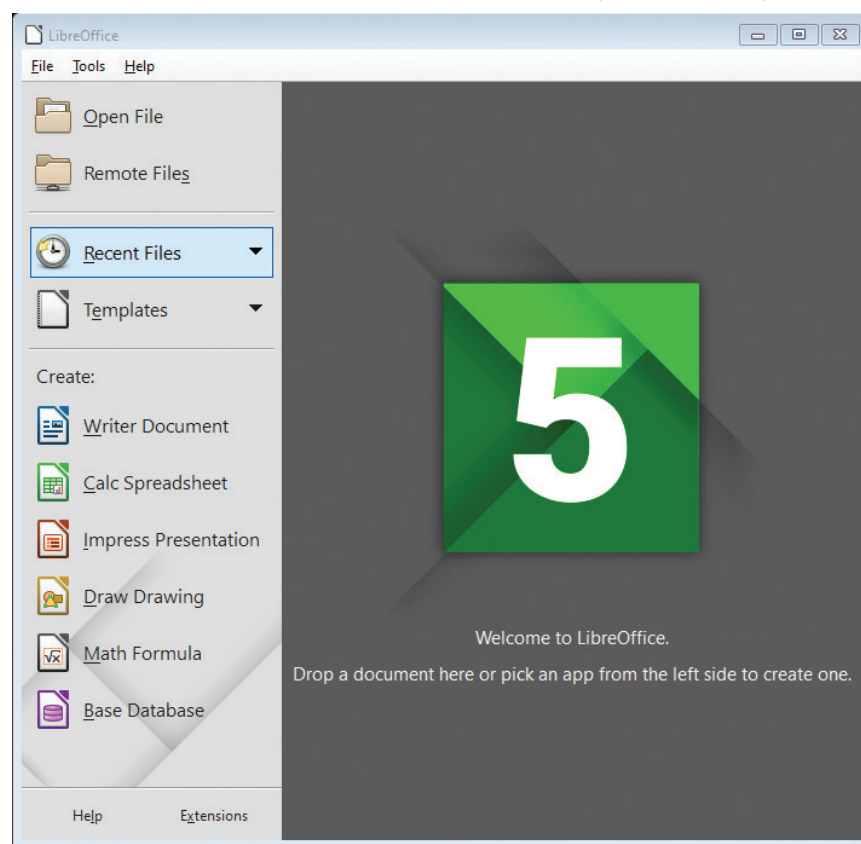
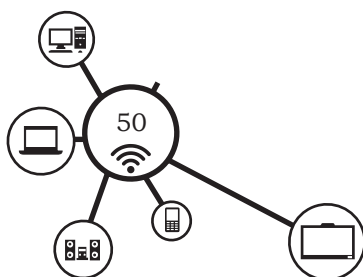


Fig. 3.2: Starting LibreOffice in Windows

DOMESTIC DATA ENTRY OPERATOR – CLASS IX



- (ii) Alternatively, click on the **Start** or **Windows button**, select **LibreOffice** → **LibreOffice Writer** from application window.
- (iii) Using the Search command, type the word 'writer' in the search field, and select *LibreOffice* Writer from the offered results.
- (iv) **In Ubuntu Linux**, find the LibreOffice Writer icon on the application launcher, or search it by clicking on 'Show Applications', as shown in Figure. 3.3.



Fig. 3.3: Starting LibreOffice in Linux

## Creating a document

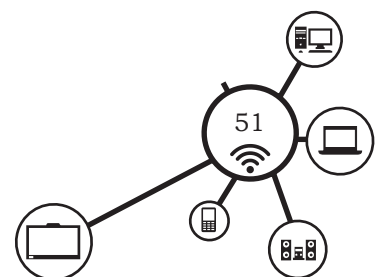
**Step 1** Create a new text document by using *File Menu* → *New* → *Text Document*.

**Step 2** Now save the file by clicking on the **File Menu** → **Save**. Give the name of the file (for example: report). By default, the file is saved in **.odt** format. Different file formats are as under

**Step 3** Saving the file by another name

It is possible to make another copy of the file by saving it with another name using the *Save As* option. Once the user saves the document by giving a name, it is called a '**File**'. The user can save the file with another name

**To create a new document:**  
Keyboard shortcut: **Ctrl+N**;  
Mouse options: **File** → **New** → **Text Document**



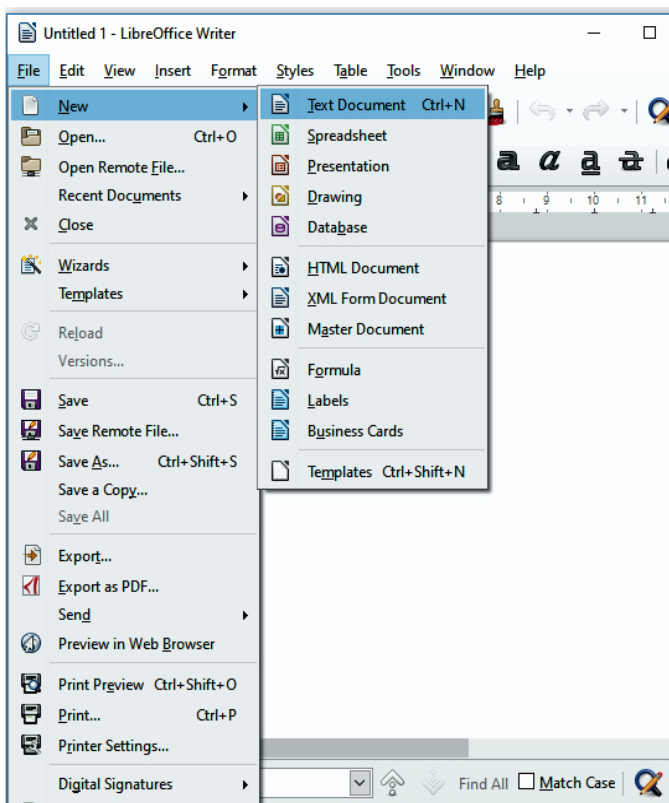


Fig. 3.4: Opening a New Text Document in Writer

in other location using the *Save As* option. The user will get two files the previous one and the one with new name.

#### **Step 4** Closing the document—

After finishing the work, close the file, as too many opened files will cause a disturbance in working. To close the file, select

**File → Close**

**Step 5** Opening the document—It may further require to open a file for editing. Select **File → Open (Ctrl+O)** and the document will be open for editing (Figure 3.4).

#### **(a) To Save a document using password**

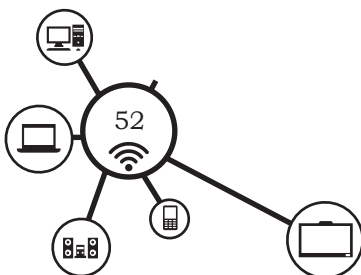
1. Select **File → Save**
2. Select the location on disk to save the file
3. Type a suitable name for the document
4. Click on **Save** button
5. To save the document with password, put a tick on the checkbox **Save with a password**
6. Type the password to open the file in **Set password** dialog box
7. Type the same password in the second box and click **OK** button

### Parts of the Writer window

The various parts of the Writer window have been briefly explained below.

- (a) Title bar:** Title bar is located on the top of Writer window. It shows the title of the currently opened document. The name of the document means the file name of the document saved on the disk. For a new document, it shows the title of the

DOMESTIC DATA ENTRY OPERATOR – CLASS IX



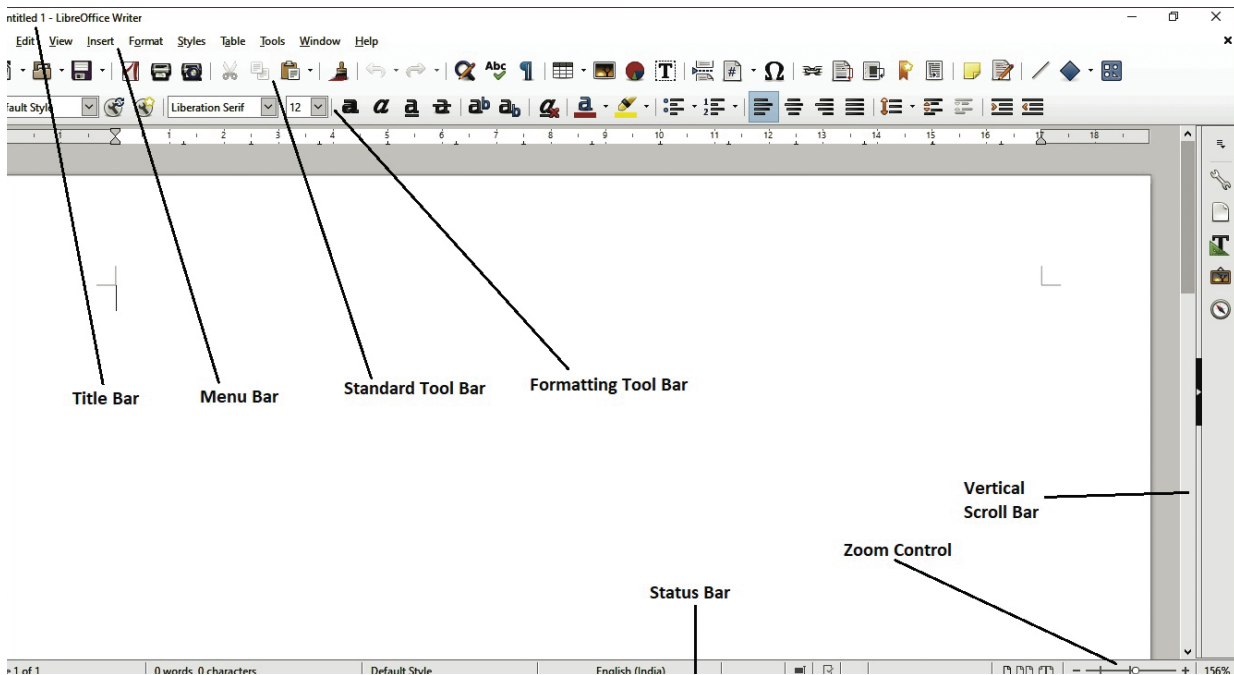


Fig. 3.5: Parts of the main Writer window

document as Untitled X, where 'X' is the document number Untitled 1, Untitled 2, Untitled 3... etc., as we go on opening the new document (Figure 3.5).

**(b) Menu bar:** It appears below the Title Bar. It shows the menu items File, Edit, View, Insert, Format, Tables, Tools, Window and Help. On selecting a menu item, its submenu will open below the menu item. We can select any item in the submenu as per the requirement. As an example Figure 3.6 shows the submenu for File menu.

- Selecting the File menu, shows the submenu as shown in Figure 3.6.
- The submenu item which shows three dots '...' just after the submenu name, means, clicking on it will open the dialog box.
- The submenu item which shows right hand side arrows '►' just after the submenu name, means, clicking on it will open another submenu.

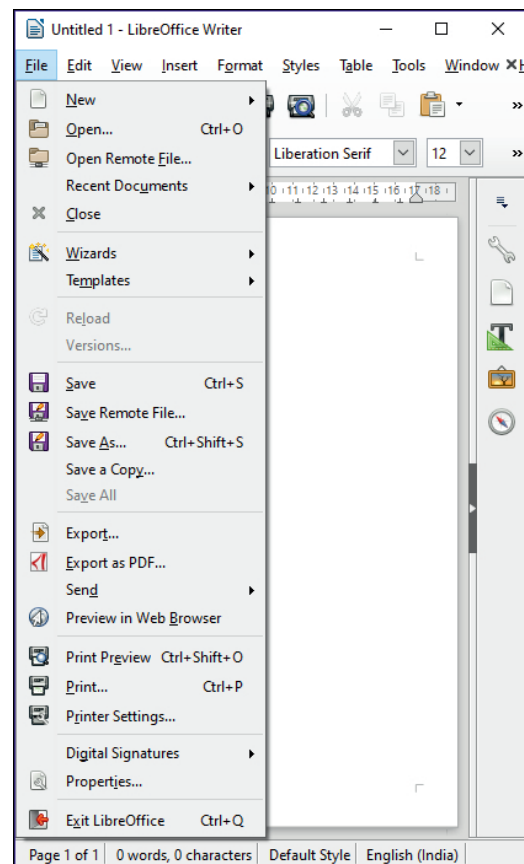
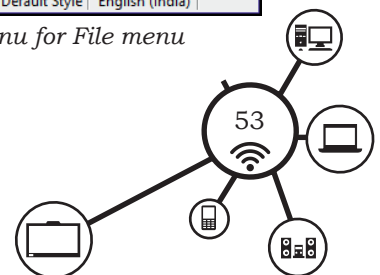


Fig.3.6: Submenu for File menu



- (c) **Toolbars:** The tool bar appears below Menu Bar. By default, the Standard Tool Bar and Formatting Tool Bar will appear. The other tool bars can be activated by clicking on '**View**' menu, and selecting the 'Toolbars' of submenu. The user can choose the required toolbars by clicking on it. The selected toolbar will show the  $\sqrt{\phantom{x}}$  sign before the toolbar. Suppose we select the Find toolbar then the Find word in the toolbar will appear as  $\sqrt{\text{Find}}$ .
- (d) **Standard toolbar:** It contains commands in the form of icons.
- (e) **Formatting toolbar:** It contains the various options for formatting a document. A graphical representation of commands is shown in the form of icons.
- (f) **Status bar:** This is positioned at the left bottom of the Writer window and displays the number of pages, words, the language used, zooming, etc. It is located at the bottom of the workspace.
- (g) **Scroll button and scroll bar:** It is used to scroll the document.

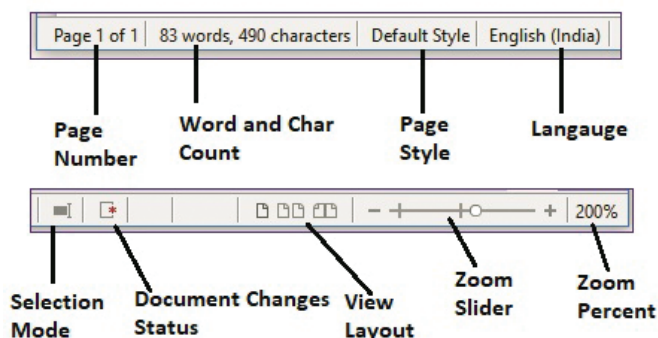


Fig. 3.7: Status bar

- (h) **Zoom:** It allows to change the scale of the text and pictures in the document only for view. It does not affect the physical document. It is used to check the finishing quality of the document.

To know the meaning of other tools, position the mouse pointer on the tool and see the Tool Tip.

## Cursor movement

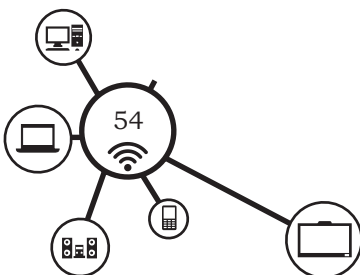
**Text Cursor:** The Text Cursor is a flashing vertical line in the body of the text. The 4 arrow keys ( $\leftarrow$   $\uparrow$   $\downarrow$   $\rightarrow$ ) on the keyboard are called as cursor control keys.

### (a) Text Cursor Movement

- Observe the location of the Text Cursor.
- Press the different cursor control keys on the keyboard and watch how the Text Cursor moves around.

### Let's Revise

Practice using the cursor control keys until you are able to position the text cursor exactly where you want it.






There are two keys above the cursor control keys marked as **Home** and **End**. Pressing the Home key jump to the beginning of the line and pressing End key jump to the end of a line.


- Position the Text Cursor on a line of the document.
- Press the Home key and observe that the Text Cursor jumps to the beginning of the line.
- Press the End key and observe that the Text Cursor jumps to the end of the line.

When these keys are pressed in combination with *Ctrl* key, the cursor jumps to the beginning and end of the document.

- To jump to the beginning of a document, press the Ctrl key, hold it down, then press the End key (**Ctrl+Home**).
- To jump to the end of a document, press the Ctrl key, hold it down, then press the End key (**Ctrl+End**).

### Mouse pointer

 This is the mouse pointer. It takes the pointer shape while moving it around the screen.

 The mouse pointer changes to I shape, when moved over the text in a document.

Moving the 'I' shaped mouse pointer over the text and clicking on the desired text, helps to get the text cursor while editing the document. Thus, the mouse is used to control the **Text Cursor** location.

### Let's Revise

Practice positioning the Text Cursor using the mouse.

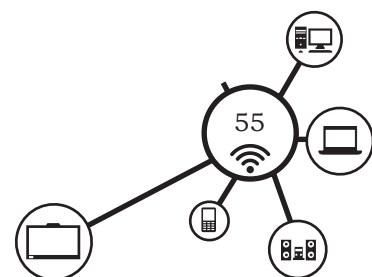
#### Let's Practice 1

Open the LibreOffice Writer and enter the text as in the following paragraph. Save the document as "Activity 1" in your folder. Close the document.

#### Report

##### **Field Visit to an IT Job Fair**

We visited the IT Job Fair, 2018 held at Kasturchand Park, Nagpur on 5th July. It was quite knowledgeable





experience for us. We came to know about the various information of the IT Sector.

The **Information Technology & Information Technology Enabled Services (IT-ITeS)** sector is a field which is undergoing rapid evolution and is changing the shape of Indian business standards. This sector includes software development, consultancies, software management, online services and **Business Process Outsourcing (BPO)**.

#### To open existing file

Keyboard shortcut: **Ctrl+O**  
Mouse options: **File** → **Open**

#### To undo the changes

Keyboard shortcut: **Ctrl+Z**  
Mouse options: **Edit** → **Undo**

Copy option (**CTRL+C**) is used to make one or more copies of the selected text whereas Cut option (**CTRL+X**) is used to move the selected text from one place to another.

## Editing the document

### (a) Undo and Redo

- Open the existing file (For example, report.odt) and then start editing in it.
- If, by mistake, you have made some changes and now you want to erase the last change done, then use the Undo option.
- After undo command, again if you want to go back then use the Redo option.

### (b) Moving and copying text

**Cut and Paste:** It is used to move a selected text from one place to another.

- Select the text and click on **Edit** → **Cut** option or press **CTRL+X**
- Place the cursor where the text has to be moved. Click on **Edit** → **Paste** option or press **CTRL+V**

### (c) Copy and Paste

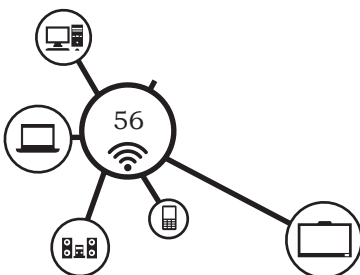
It is used to make a duplicate copy of selected text.

**Step 1:** Select the text and click on **Edit** → **Copy** option or press **CTRL+C**

**Step 2:** Place the cursor where the text has to be duplicated. Click on **Edit** → **Paste** option or press **CTRL+V**

### (d) Selecting text

It is necessary to select the text to perform copy and paste operation. The selected text will be **highlighted**. For editing the text you must first select the required text. The editing can be done on the selected text.



### (e) Selection criteria

To select the text in Writer, swipe the mouse cursor over text. There are several selection tricks to speed up the selection process as below.

To select a letter or letters	Drag the Mouse across the letter(s)
To select a single word at a time	Position the mouse pointer anywhere on that word and double click.
To select a complete sentence at a time	Position the mouse pointer anywhere in the sentence and triple click. (Triple click means to quickly click the left mouse button three times.)
To select a complete paragraph at a time	Position the mouse pointer anywhere in the paragraph and quadruple click (Quadruple click means to quickly click the left mouse button four times.)
A document	Press Ctrl + A on the key board. Drag the mouse pointer till you see a right arrow which is white. Then click it thrice.

### Let's Revise

Practice selecting words, sentences, paragraphs and shift click option until you can do it accurately and easily.

A portion of the text can be selected by clicking and dragging. To do this, position the mouse pointer at the beginning point of the selection, click and hold the left mouse button down, and move the mouse pointer to the end of the desired selection.

To de-select the text, move the mouse pointer to an unselected location and click the left mouse button once.

To select all of the text in a document, press **Ctrl+A**.

**Ctrl+A** means to hold the **Ctrl** key down and press the **A** key.

### Let's Revise

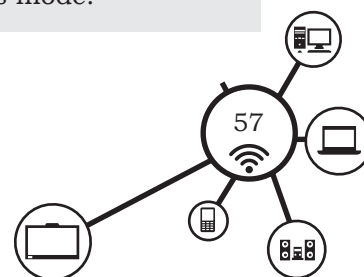
Practice selecting all text till you can do it accurately.

### (f) Selecting non-consecutive text items

The above process shows the selection of continuous text. But suppose if the text is not continuous and you have been asked to select a part of the text from a paragraph, then perhaps you may say that it is not

### By using the keyboard

- select the first piece of text.
- press Shift+F8. This puts Writer in 'Adding selection' mode.
- use the arrow keys to move to the start of the next piece of text to be selected. Hold down the Shift key and select the next piece of text.
- repeat as often as required.
- press Esc to exit from this mode.



### By using the mouse

- select the first piece of text.
- hold down the Ctrl key and use the mouse to select the next piece of text.
- repeat as often as needed.

To select the vertical block of text select from menu:

**Edit → Selection Mode → Block Area,** or press **Ctrl+F8** (Keyboard shortcut).

possible to select the non-consecutive text. But Writer provides a way to select the non-continuous text using the keyboard and mouse. Figure 3.8 shows the selection of non-consecutive items.

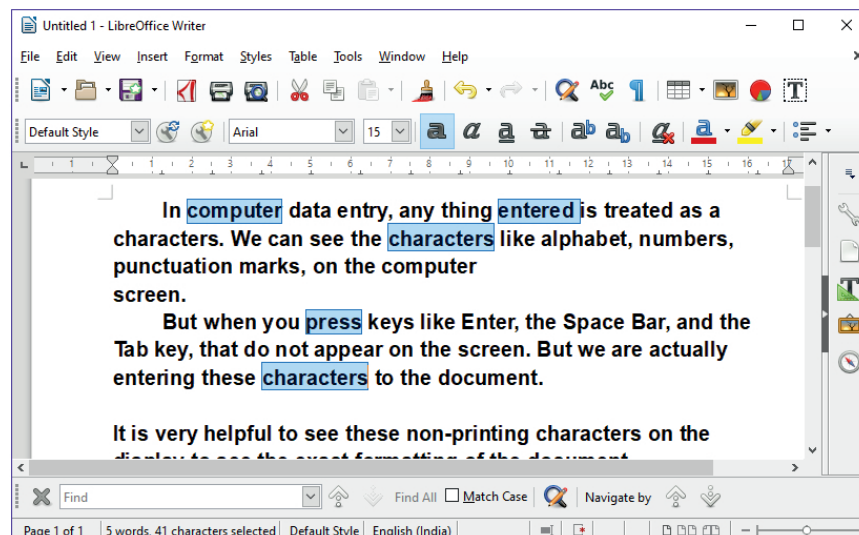


Fig. 3.8: Selecting non-consecutive text items

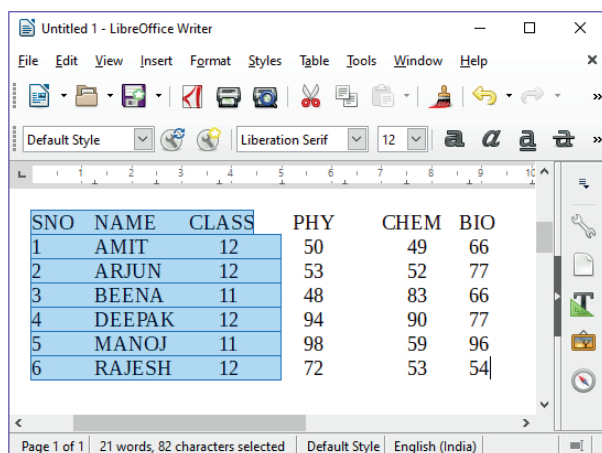


Fig. 3.9: Selecting vertical block of text

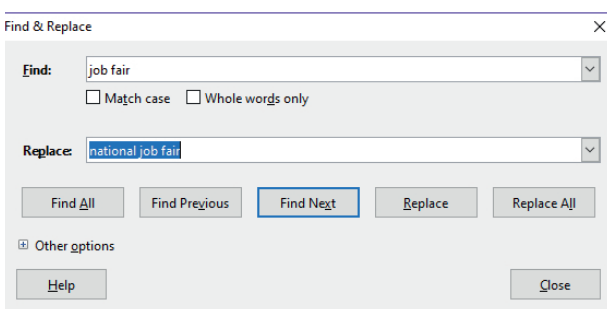


Fig. 3.10 : Find and Replace the word

### (g) Selecting a vertical block of text

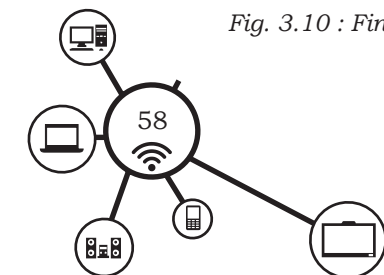
It is also possible to select a vertical block or 'column' of text that is separated by spaces or tabs (Figure 3.9).

### (h) Find and Replace

This feature is used to search for a text and replace it with other text.

- Select **Edit → Find & Replace**, the dialog box will open.
- Type the text to find in the **Find** box.
- To change the text with different text, enter the new text in the **Replace** box. For example, while writing the paragraph the word 'IT Job Fair' was typed but it should be 'NationalITJobFair'. So let's replace it (Figure 3.10)

**Step 1:** Click on **Edit Menu → Find & Replace** option or press **CTRL+F**



**Step 2:** Write text under Search For option and click on Find button to locate the entered word. This will select the word which you want to search for. Also, you can click on Find All to select and display all occurrences of the entered text.

**Step 3:** Write the text under Replace with option. Now click on Replace if you want to change only first occurrence of it and use Replace All to replace all the matching occurrences.

Find only locates the text given in Search for whereas Replace changes the text into the Replace with text.

Find will search one instance at a time whereas Find All will search all instances in one go.

### (i) Jumping to the page number

Sometimes we may require to jump to a particular page number. It becomes difficult to scroll down if it is a large document with several pages. In such a situation, 'Go to Page' feature of Writer is useful. To do this, select the **Edit Menu** → **Go to Page (Keyboard shortcut: Ctrl+G)**. Specify the page number in the dialog box. The cursor will move to the first character of the specified page number directly (Figure 3.11).

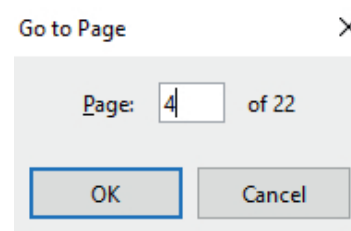


Fig. 3.11 : Go to Page

### (j) Non-printing characters

In computer data entry, anything entered is treated as a character. We can see the characters like alphabet, numbers, punctuation marks, on the computer screen.

But when you press keys like Enter, the Space Bar, and the Tab key, that do not appear on the screen, we are actually entering these characters in the document.

It is very helpful to see these non-printing characters on the display to see the exact formatting of the document.

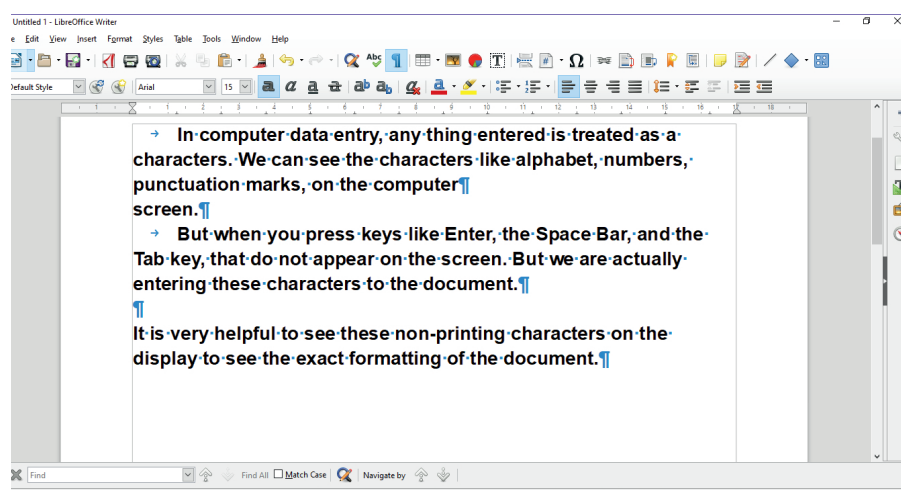
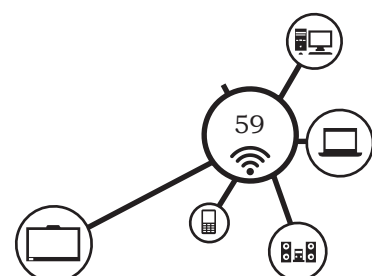


Fig. 3.12: Non-printing characters

To display the non-printing character, press the toggle formatting mark (¶) or use keyboard shortcut **Ctrl+F10**. The tab space is shown by → sign and spacebar is shown by dot (.) as shown in Figure 3.12.



### (k) Checking spelling and grammar

While writing a report on paper, sometimes we may not remember the spelling of some words. In this situation we refer to the books or confirm the spelling from

teachers or parents. Also while word processing a document, we may commit spelling mistake. In such cases, the Writer helps us to correct the spelling. It also provides a grammar checker to check the grammar of the sentence. It can be used separately or in combination with the spelling checker. This is one of the important features of any word processing application.

If any grammatical errors are detected, they are underlined by a wavy blue line. Right-clicking on this line brings up a context menu as shown in Figure 3.13. The first entry in the menu describes the suspected broken grammatical rule. We can do the correction as suggested.

So after typing a paragraph of a report, one can check the spelling and grammar. A spelling checker checks to see if each word in the document is in the installed dictionary. The grammar checker, can be used separately or in combination with the spelling checker.

To check the spelling and grammar of the document (or selected text), select **Tools** → **Spelling and Grammar**, or click the **Spelling and Grammar** button on the Standard toolbar, or press the keyboard key F7.

The Spelling and Grammar dialog opens.

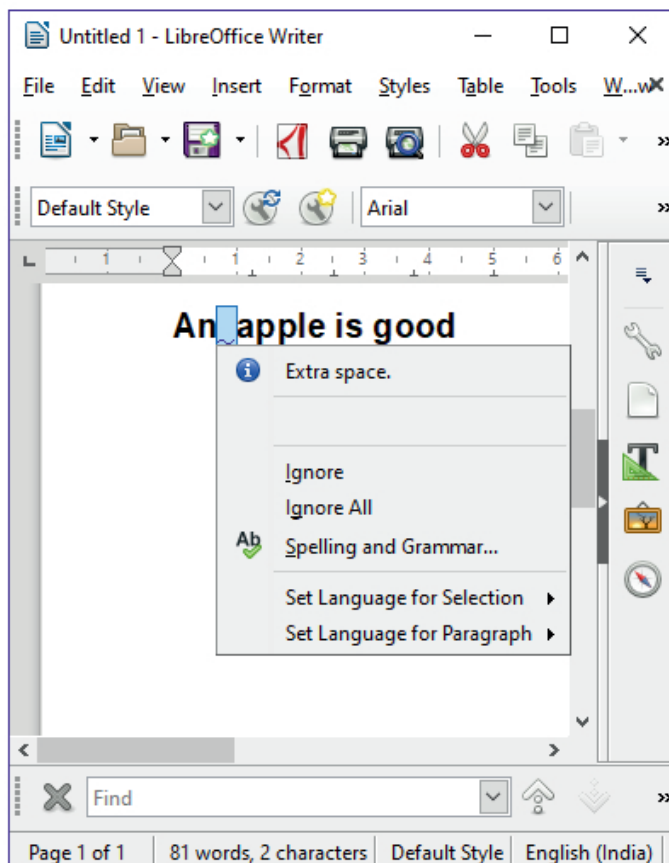


Fig 3.13: Context menus for suspected grammar errors

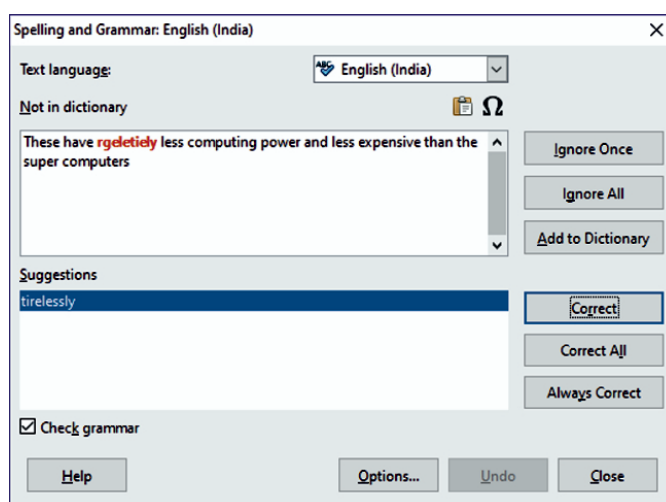
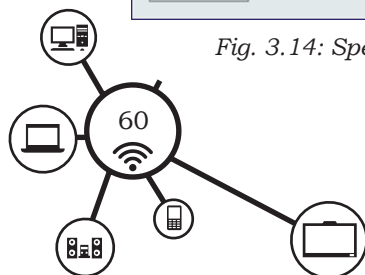


Fig. 3.14: Spelling and Grammar dialog box





You can choose to restart from the beginning of the document when the check reaches the end of the document.

**Automatic Spell Checker** checks each word as it is typed and displays a wavy red line under any unrecognised words. Right-click on an unrecognised word to open a context menu (Figure 3.15). Certain suggestions will be displayed for the selected word. Click on the most appropriate word out of the suggested words to replace the underlined word. After making corrections, the line disappears.

### (1) Using synonyms and the thesaurus

Sometimes you search for a word having a similar in meaning to the word you have in mind. A word processor helps to look up synonyms (different words with the same meaning) and antonyms (words with the opposite meaning) in the thesaurus. The list of synonyms can be accessed from a context menu (Figure 3.16). Right-click on a word and point to **Synonyms** on the context menu. A submenu of alternative words and phrases are displayed. Click on a word or phrase in the submenu to replace it with the highlighted word or phrase in the document.

Synonyms are different from a dictionary. A dictionary contains definitions and pronunciations, whereas thesaurus will have words with similar meanings or opposite meanings.

Let's check the thesaurus for words which have similar meanings to 'market' in 'IT job market'.

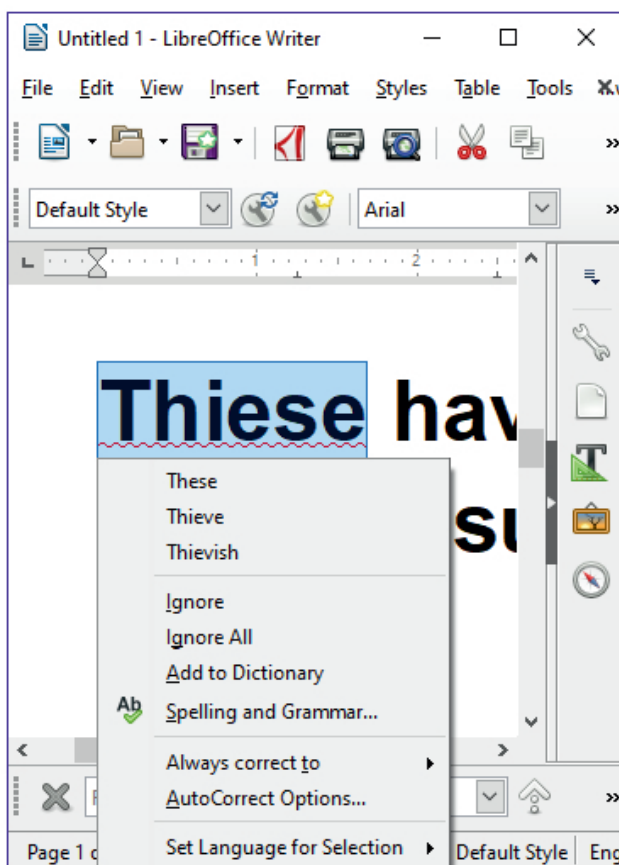


Fig. 3.15: Right click to spell check

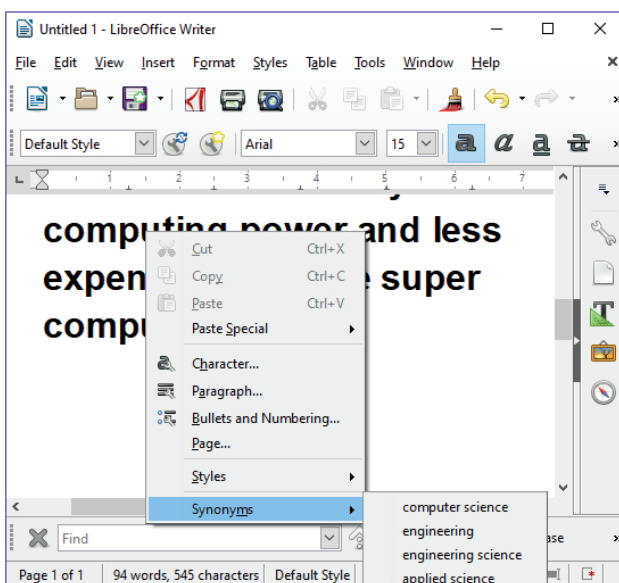
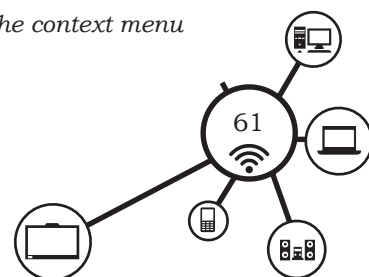


Fig. 3.16: Synonyms on the context menu





## NOTES

### Formatting a document

The first step in document preparation is to use page setup. The Page Formatting is explained in the next section. But for the document preparation, Page setup is taken here.

To setup a page, select and click on the **Format** → **PageSetup** and the **Page** option.

### Page style dialog

The Page style dialog box has the several options as shown in Figure 3.17.

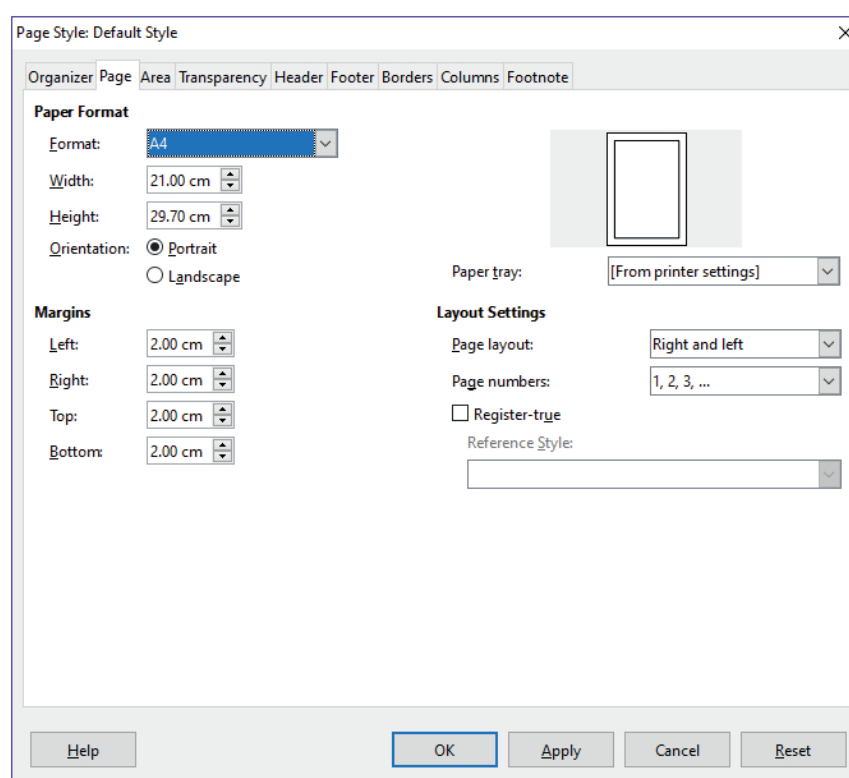
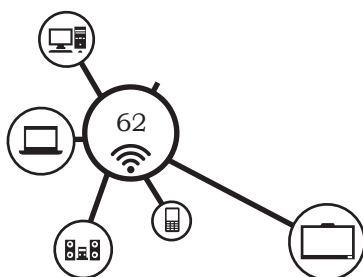


Fig. 3.17 : Page Style dialogue

It allows to select paper size and format (A4, A5, B4, Letter). User can adjust 'Orientation' as *Portrait* or *Landscape*. The user can set the Margins (Left, Right, Top, Down).

### Formatting text

Formatting Text refers to the formatting of paragraphs and characters. To do the formatting, first select the text and then apply the required text formatting features.



There are various methods of formatting text. We can apply any one method as per the suitability. These methods are

- use the menu options from menu bar.
- use the readily available buttons on the formatting toolbar.
- use the context menu. The context menu appears by right clicking on the selected text.
- use the keyboard shortcut.

#### (a) Removing manual formatting

To see the effect of formatting the text, first remove manual formatting. For this, select the text and choose **Format** → **Clear Direct Formatting** from the Menu bar, or click the Clear **Direct Formatting** button on the Formatting toolbar, or use **Ctrl+M** from the keyboard. It will clear the existing formatting on the text and then you can apply the fresh formatting features.

#### (b) Common text formatting

Some of the common text formatting features generally used have been shown in Figure 3.18.

1. Changing font size – by selecting font size.
2. Changing font style – bold, italic, underline
3. Changing font type – by selecting font drop down.
4. Changing font colour – by selecting font colour icon.

On the Format Toolbar, you will find the buttons representing the letter a in Bold, Italic and Underline form. These are toggle buttons.

To apply any of the effect of bold, italic and underline, first select the text. Then press the desired buttons on the formatting toolbar. The keyboard shortcuts for bold (**Ctrl+B**), for italic (**Ctrl+I**) and (**Ctrl+U**) for underline. Applying the required font effects will change the font as shown in the Figure 3.18.

#### (c) Changing text case

It is possible to change the case of the text. There are 6 Change Case options in LibreOffice Writer as shown

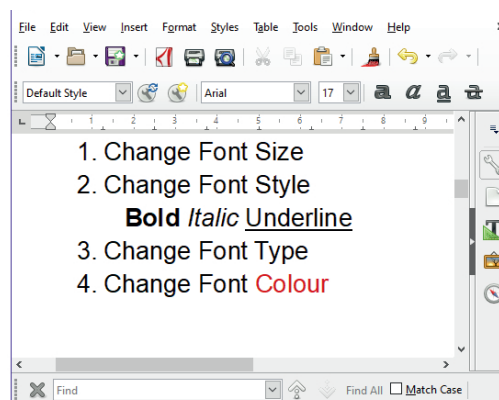
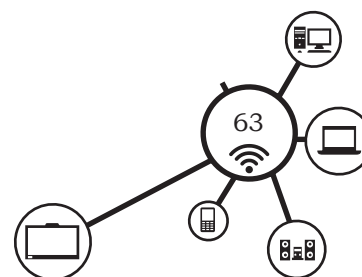


Fig. 3.18 : Text formatting



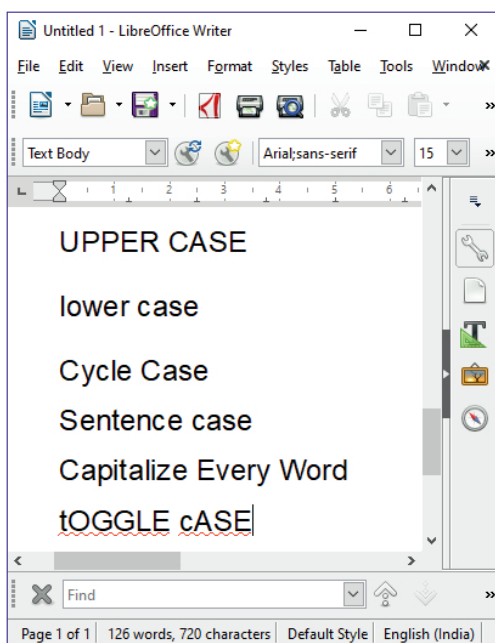


Fig. 3.19: Changing case

in Figure 3.19. These operate on currently selected text.

#### (d) Superscript and Subscript

For example, in the date 5<sup>th</sup> July, the 'th' character appearing after 5 is in the superscript case. In some situations, such as while writing scientific/chemical formula, such as O<sub>2</sub>, the character 2 is in the subscript case.

Now, in our example, change the 5th July to 5<sup>th</sup> July.

- **To apply superscript:** Select the text and select **Format** → **Text** → **Superscript**
- **To apply subscript:** Select the text and select **Format** → **Text** → **Subscript**

### Let's Practice 2

Open the Word Processing software and perform the following.

1. Prepare your page as follows.

Size – A4	Orientation Landscape	Margins – 2' from left and right 1.5' from top and bottom
-----------	--------------------------	--------------------------------------------------------------

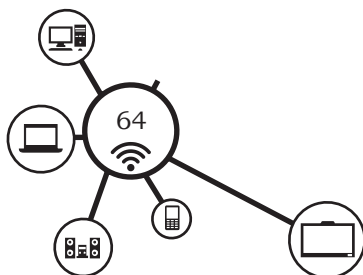
Use 'Page Setup' Dialogue Box. 2. Use Bold, Italic, Underline, Change Case, Font Color and Format the text as shown below and save it as Activity 3. Close the document.

#### REPORT

##### **Field Visit to IT Job Fair**

We visited the IT Job Fair, 2018 held at **Kasturchand Park, Nagpur** on 5th July. It was quite knowledgeable experience for us. We came to know about the various information in IT Sector.

The **Information Technology & Information Technology Enabled Services (IT-ITeS)** sector is a field which is undergoing rapid evolution and is changing the shape of Indian business standards. This sector includes software development, consultancies, software management, online services and **Business Process Outsourcing (BPO)**.



## Paragraph style

A paragraph in a document can have several sentences, a single sentence, a single word, or no words at all. Every paragraph in a LibreOffice Writer document has a paragraph style. The paragraph style settings have a pop down window. One can change the paragraph style by clicking on the pop down window and selecting the choices as shown in Figure 3.20.

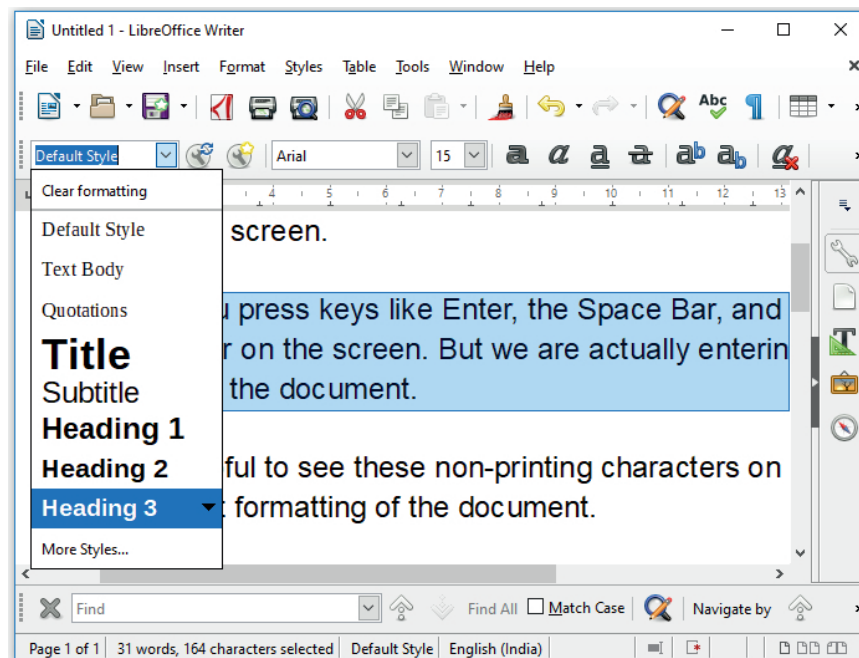


Fig. 3.20: Paragraph Style

### (a) Indenting paragraphs

The entire paragraph can be indented in one step. Place the Text Cursor anywhere in the paragraph, select and click on the 'Increase Indent' tool. Each time when you click on the Increase Indent tool, the current paragraph's indent will increase. There is also a Decrease Indent tool that removes the indent.

Now increase the indent of the third paragraph in our assignment of Report. The output will be as shown below in Figure 3.21.

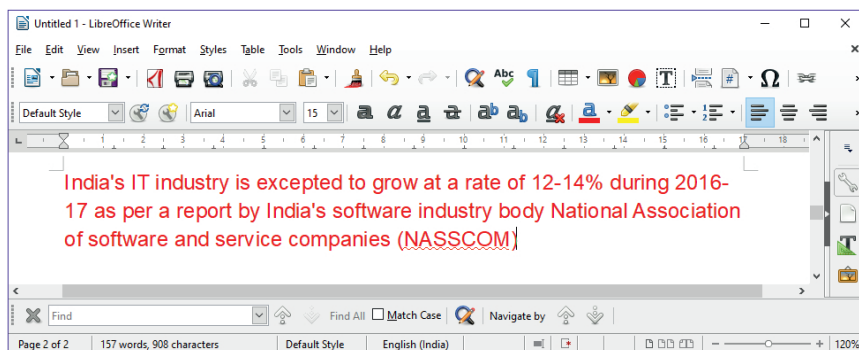
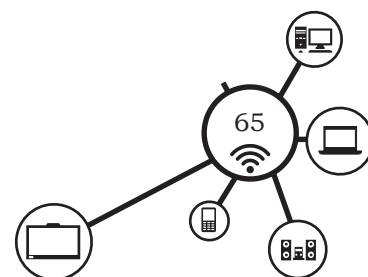


Fig. 3.21 : Paragraph indentation

### (b) Aligning paragraphs

The paragraph can be aligned as Left, Right, Center and Justify. To align the paragraph, place the text cursor in the title paragraph, select the appropriate tool (Left, Right, Center or Justify) from the Format Toolbar.



### To change the paragraph style

- First select the paragraph by paragraph selection method.
- Select the drop down arrow of paragraph style.
- Select Text Body from the pop down menu.
- Move the mouse pointer to outside the selected text and click the left mouse button once to de-select the text.

The selected words should now be centered in your document.

Move the mouse pointer over the four different alignment tools and read the Tool Tips, Align Left (**Ctrl+L**), Center Horizontally (**Ctrl+E**), Aligned Right (**Ctrl+R**) and Justified (**Ctrl+J**). The Justified option makes both the left and right sides of the paragraph line up with the margins. All these text alignment are shown in the Figure 3.22.

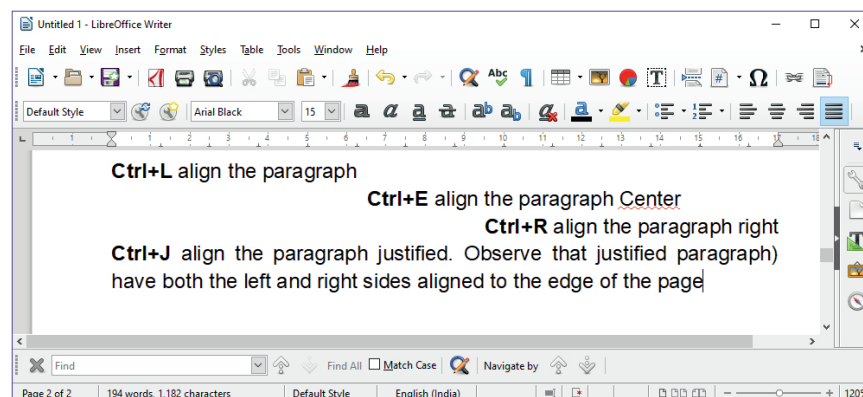


Fig. 3.22: Paragraph alignment

### To explore more paragraph formatting features ...

- Select a paragraph
- Click on the required tools on 'Formatting Tool Bar' Or
- Open **Format** → **Paragraph** Dialogue Box
- Select the appropriate tools
- Click **Ok**

### (c) Font colour, highlighting, and background colour

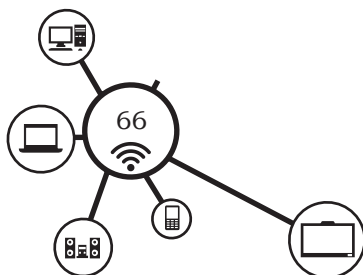
There are three more tools—Font Color, Highlighting, and Background tools on the Format Toolbar.

- To change the font color, select the small down pointing arrow ▼ on the right edge of the Font Color tool and select the colour from the colour box.
- To change the highlight colour, select the small down pointing arrow ▼ on the right edge of the Highlighting tool and change the colour from the colour box.

### Let's Practice 3

Open the LibreOffice Writer and perform the following:

1. Enter the text and format the paragraphs as shown in Table (given on next page) in Column A.
2. Format it again as shown in Column B (See Table on next page). Save and close the document.



Column A	Column B
<p><b>What is a computer?</b> A computer is an electronic device that manipulates <b>information</b> or <b>data</b>. It has the ability to <b>store</b>, <b>retrieve</b>, and <b>process</b> data.</p> <p><b>You can use a computer to type document,</b> send email, and browse the web.</p> <p>You can also use it to handle <b>spreadsheets, accounting database, management, presentations, games, and more.</b></p>	<p><b>What is a computer?</b> A computer is an electronic device that manipulates information or data. It has the ability to <b>store</b>, <b>retrieve</b>, and <b>process</b> data.</p> <p><b>You can use a computer to type documents</b> send email and browse the Web.</p>

#### (d) Using the bullets and numbering

You can assign the bullets or numbering to the list items in the document by using the options on the Bullets and Numbering toolbar. You can also create a nested list by using the buttons on the Bullets and Numbering toolbar. The general options available for bullets and numbering are shown in Figures 3.23 and 3.24. A nested list has a sublist under it. Bullets and Numbering dialog contains more detailed controls (Figure 3.25).

#### (e) Assigning colour, border and background

1. To assign background colour to the paragraph, first select the paragraph.
2. Select **Format** → **Paragraph** → **Area** → **Colour**, then select the colour.

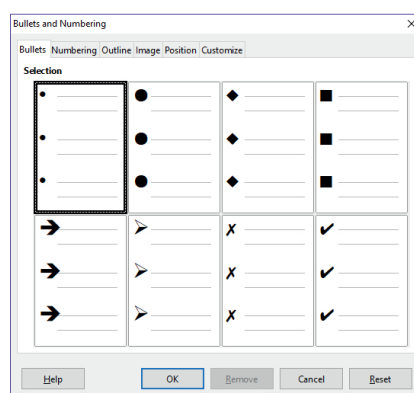


Fig. 3.23 : Bullets

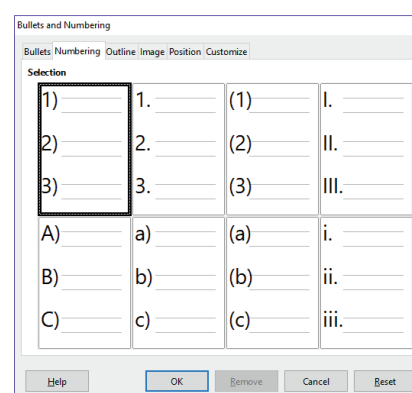


Fig. 3.24: Numbering

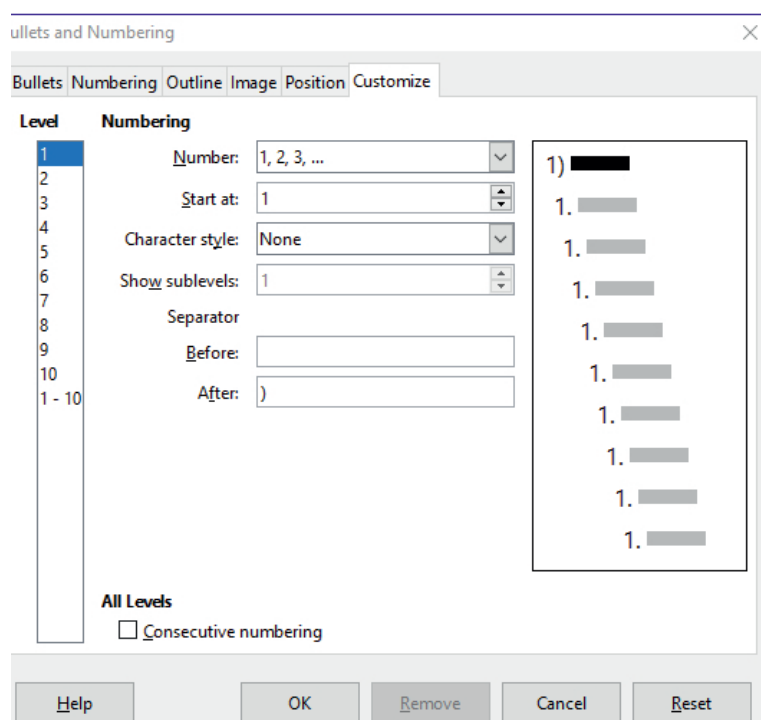
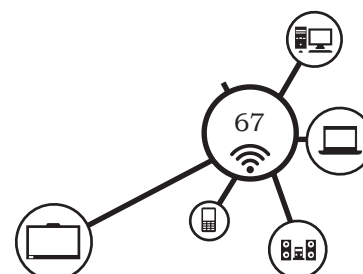
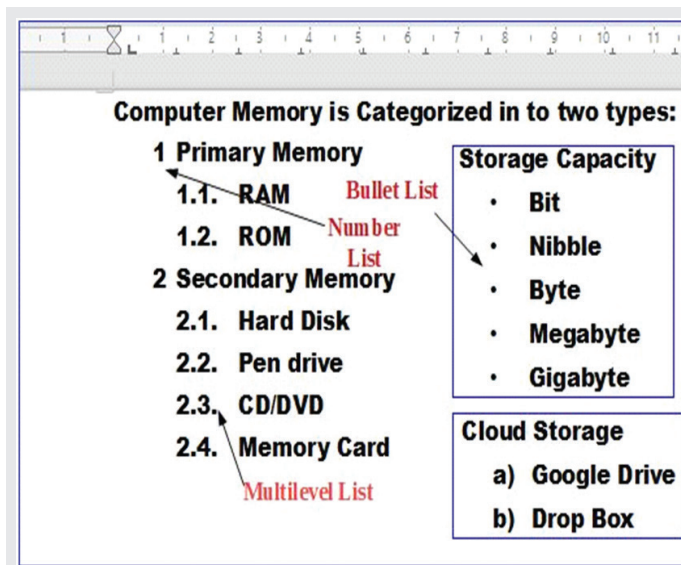


Fig. 3.25: Bullets and Numbering dialog





3. To assign border to the paragraph, select the paragraph, then select *Format* → *Paragraph* → *Borders* → *Select Line – Style, Width, Colour*.
4. After selecting, click '**Ok**'.



## Let's Practice 4

Practice to assign normal bullets and numbering to the list items as shown in figure below. Create a new document and enter the text on Computer Memory. Assign the variety of bullets and numbering as shown in the adjacent figure.

## Let's Practice 5

Make a list of bullets as shown in the adjacent figure. Save the document. Close the document.

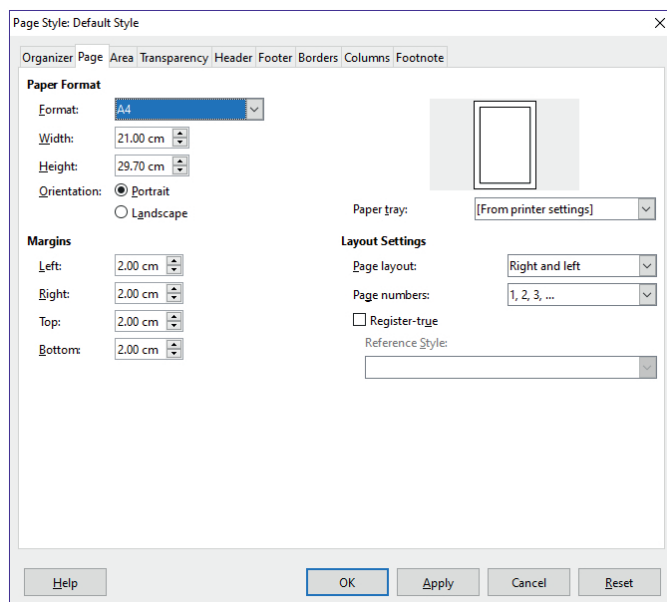


Fig. 3.26: Formatting page

## Page formatting

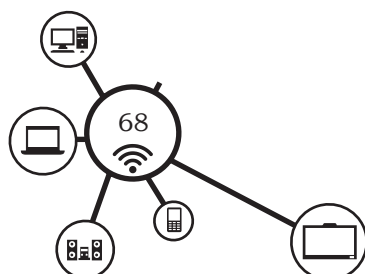
### (a) Setting up basic page layout using styles

Page styles define the basic layout of all pages in the document. It includes page size, margins, header and footer, border and background, number of columns, etc. (Figure 3.26).

The *Default Style* is assigned to the new document by default. It appears on the taskbar of the writer window. To change the various parameters of the page, just click on the *Default Style* on the taskbar or click on the **Format** → **Page**.

### (b) Inserting a page break

In multi-page documents the text flows from one page to the next as you add information. In certain cases we may require to break the current page and move the next heading or next chapter to the new page in



the same document. In such cases we have to break the page forcefully and take the cursor to the next page to insert the new heading. This is called as a page break.

To break the current page and start the new page select **Insert** → **Page Break** from the Menu bar or use the keyboard command (**Ctrl + Return**).

The Page break can also be narrowed down to the line and column, by using **Insert** → **Manual Break**, as shown in Figure 3.27.

### (c) Creating header/footer and page numbers

In a multi-page document, it becomes necessary to add a header and footer to document for more readability. Headers appear at the top of every page; footers appear at the bottom of a page. Headers and footers are specified by page styles; therefore, all the pages with the same page style will display the same header and footer.

To insert header in the document, select **Insert** → **Header and Footer** → **Header**

To insert footer in the document, select **Insert** → **Header and Footer** → **Footer**

You can give the document name or chapter name in the header section and page number in the footer section.

To enter page numbers in the footer section, place the cursor in the footer section and select **Insert** → **Page Number**.

### (d) Defining borders and backgrounds

Assigning borders and backgrounds to important paragraphs, frames and pages give attractive look to the document. For example, by assigning borders or backgrounds a reader is able to differentiate the points to remember from the regular text.

- (i) Adding border: It is possible to apply the border, either to individual characters or to selected text. The process is similar in each case. The preset

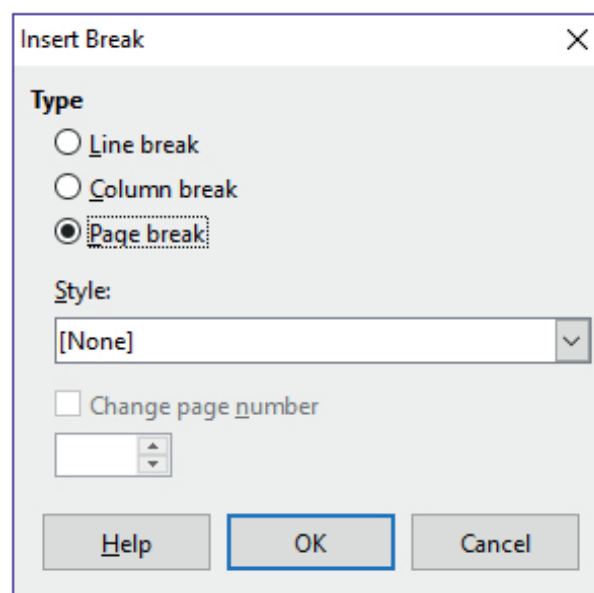
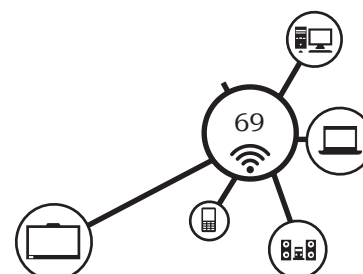


Fig. 3.27 : Insert manual break

### Different types of software

1. Application Software
  - a. LibreOffice
    - Writer
    - Calc
    - Impress
  - b. Microsoft Office
  - c. Gimp
  - d. Adobe Photoshop
2. System Software
  - (i) Windows
  - (ii) Linux
  - (iii) Mac



## Insert Elements in Writer document

- Images
- Shapes
- Objects
- Chart
- Symbols
- Special Character
- Tables
- Header and Footer
- Page Numbers
- Columns
- WordArt/Fontwork

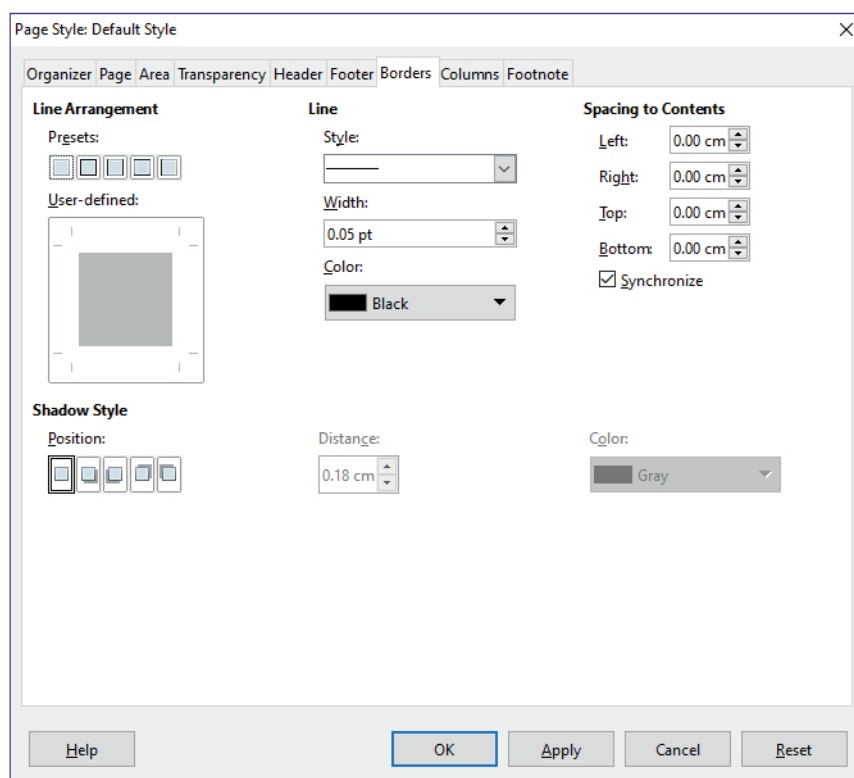


Fig. 3.28: Adding border to paragraph

shows the preview of the selected border (Figure 3.28).

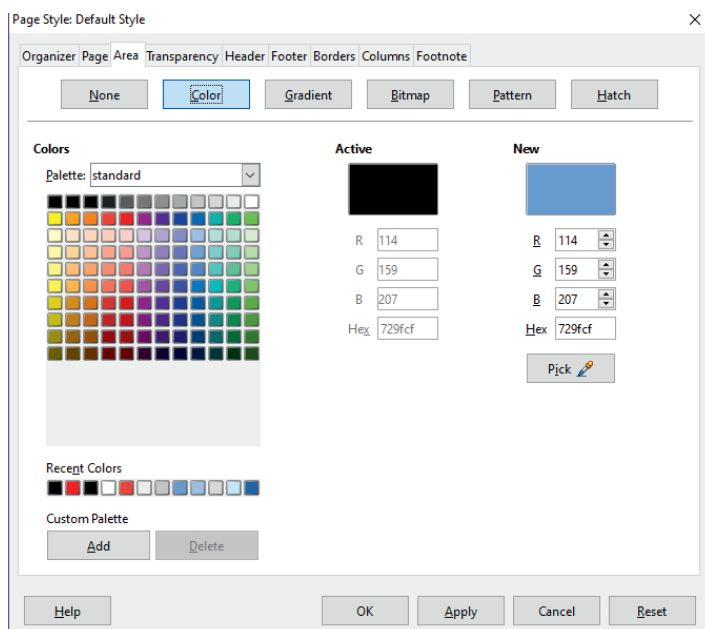
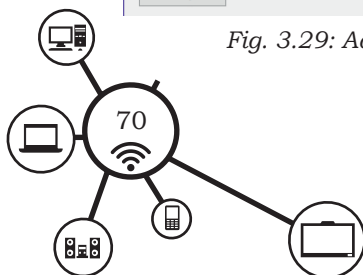


Fig. 3.29: Adding background to paragraph

(ii) Adding background colour: To add background color to the paragraph, select the paragraph. Select the Area tab from the Paragraph dialog. Alternately, right-click anywhere in the paragraph, and choose Paragraph from the context menu. In the dialog, select the Area tab, then choose Color. Select the color from the color grid to use for this frame, and then click **OK** to apply it to the background (Figure 3.29).

The color, gradient, bitmap, pattern, hatch can be added in the same way by clicking the respective buttons in the dialog.

DOMESTIC DATA ENTRY OPERATOR – CLASS IX



To delete a color, gradient, bitmap, or other background, select **None** near the top of the Area page of the Frame dialog.

### (e) Inserting images, shapes, special characters in a document

The regular text in the document can be made attractive and more informative by inserting the various elements as listed below. You can also explore more tools to be inserted in the document.

- (i) Inserting image: If you wish to include any picture or image in your document, the image file should be stored in your hard disk or external storage, such as Pen drive. To insert an image in your document, position the cursor where you want to insert the file, select **Insert** → **Image**. Another alternative is, just click on the insert image icon, located below the Formatting Toolbar. A file manger will appear from where you can select the image file. Select the image file and click on Open button or just double click on the image file. The image will get inserted in the file (Figure 3.30).

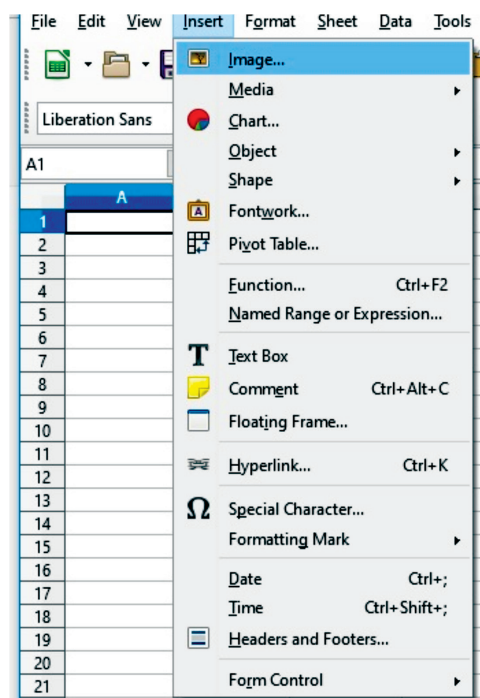


Fig. 3.30: Selecting insert image option from Insert menu option

- (ii) Inserting special characters: Sometime we may require to enter the special character, such as ¶ or which cannot be typed by using the keyboard. LibreOffice Writer provides a feature to enter the number of special characters as shown in the following dialog. To do this select **Insert** → **Special Character** (Figure 3.31).

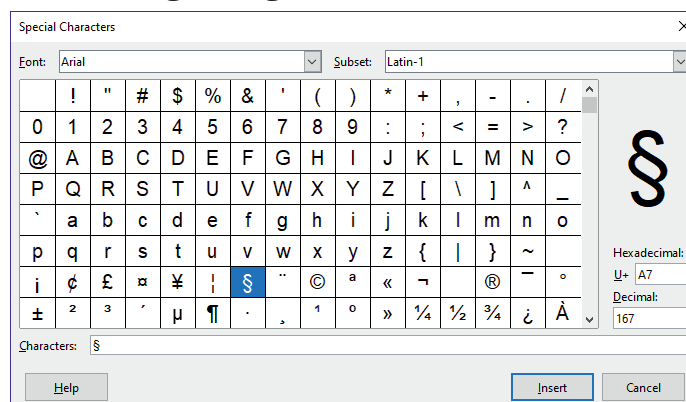
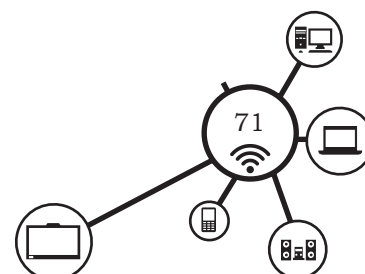


Fig. 3.31 : Inserting special character

- (iii) Inserting shapes: It is possible to insert various shapes in your document. The variety of shapes consists of Lines, Arrows, Symbols, Stars, Callouts, Flowcharts. For this, keep the cursor in the place you wish to add the shape and select **Insert** → **Shape** and then choose the further element you wish to insert.



## (f) Dividing the document page into columns

You may have seen some documents where its page is divided into two or three columns. It is used in magazines and newspapers. It is possible to arrange the regular text into columns before or after adding the text.

To divide the page into columns, select **Format** → **Column**. A Column dialogue box as shown in Figure 3.32 will appear. Enter the number of columns in the Column entry box. Give the value for spacing between the columns and click **OK**. On selecting the number of columns up to 3, the formatted page will look like as shown in Figure 3.33.

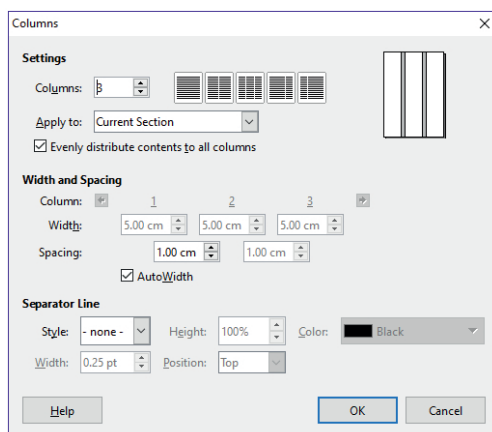


Fig. 3.32 : Column dialog box

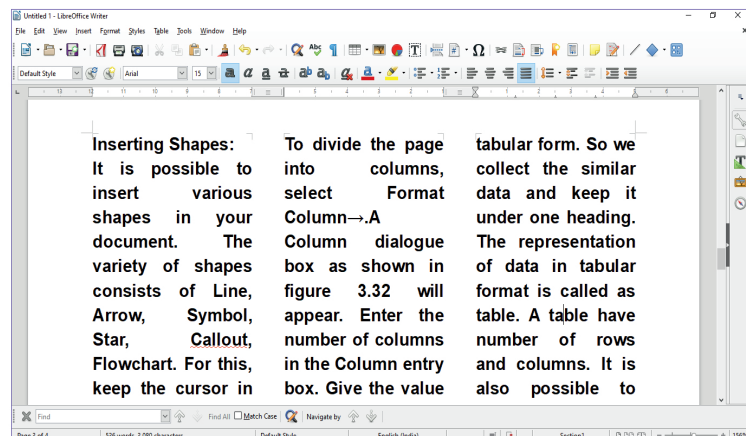


Fig. 3.33: Page formatted into 3 columns

## (g) Formatting the shape or image

User can format the shape or image inserted in the document. For instance, user can change its size, colour, add borders, change its position, etc.

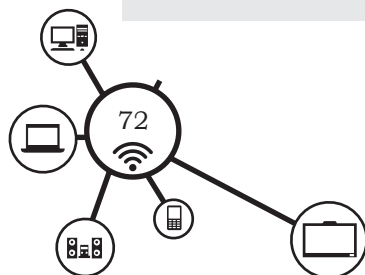
First, select the shape or image by clicking on it. Then make use of the Tool Bar to perform the required changes.

## Creating and managing tables

In a document it is normally seen that some data are represented in tabular form. So we collect the similar data and keep it under one heading. The representation of data in a tabular format is called as table. A table has a number of rows and columns. It is also possible to have a table with one row and one column.

Consider an example of representing your school timetable, your marksheet, your teachers teaching

- Create tables with rows and columns
- Delete rows/columns
- Merge cells
- Split cells
- Colour the table
- Change text direction





various subjects. To represent such data you have to create a table. LibreOffice Writer provides a very rich tool for creating and managing a table. The various features of the table are:

Time Table Class IX									
Day/ Period	1	2	3	4		5	6	7	8
Time	7:30 to 8:10	8:10 to 8:50	9:00 to 9:40	9:40 to 10:20	10:20 to 10:40	10:40 to 11:20	11:20 to 12:00	12:10 to 12:50	12:50 to 13:30
Day 1					LUNCH BREAK				
Day 2									
Day 3									
Day 4									
Day 5									
Day 6									

### (a) Creating a table

The simplest way to create a table is, click the **Table** icon on the Standard toolbar. On the drop-down graphic, choose the size of the table. To create the table, click on the cell representing the last row of the last column that you want. Holding down the mouse button (Figure 3.34) over the Table icon will also display the graphic.

Another way to create a table is by using the Table dialog. Position the cursor where you want to insert the table, then:

Select **Table** → **Insert** Table from the Menu bar as shown in Figure 3.35 (or Press **Ctrl+F12**).

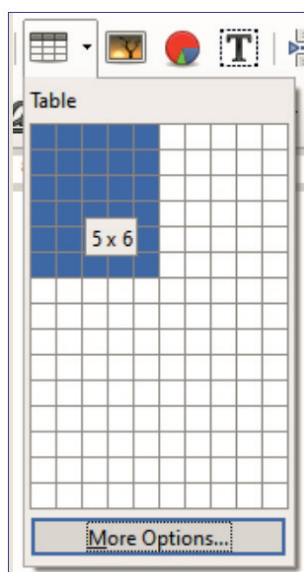


Fig. 3.34: Creating table

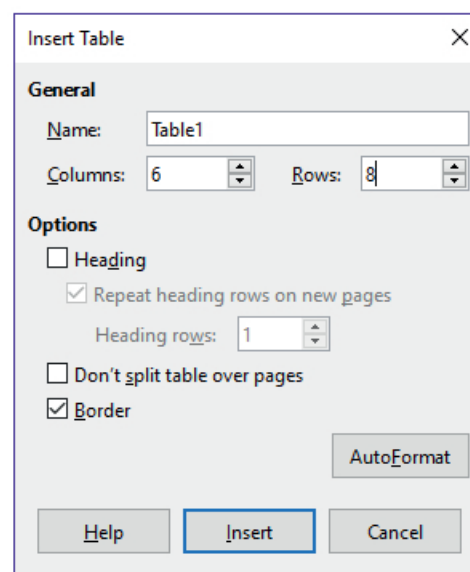
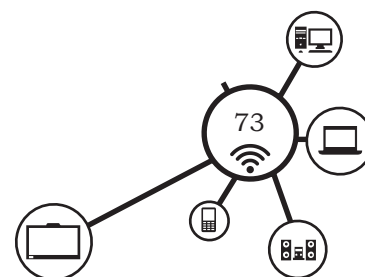


Fig. 3.35 : Insert Table





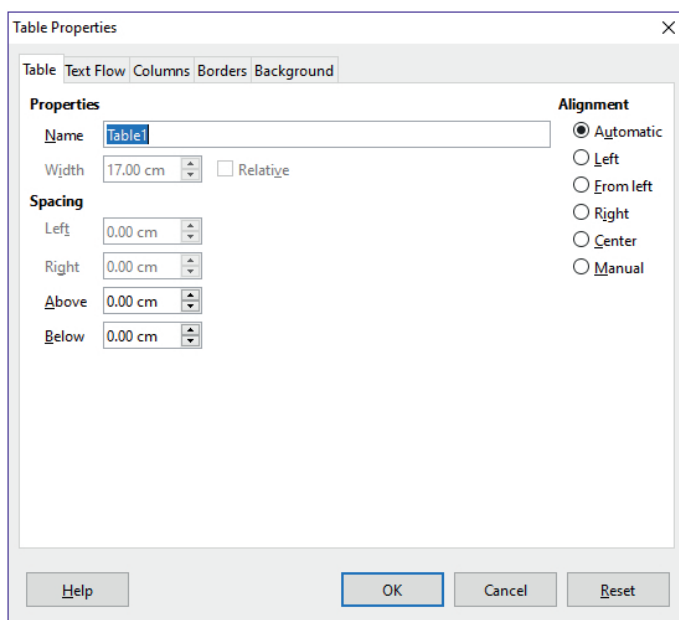


Fig. 3.36 : Table properties

It will create a simple table. After creating a table, you can explore more features. For this, select **Table** → **Properties**.

### (b) Inserting rows and columns

To insert one row or column in the table:

- Place the cursor in the row or column before or after which you want to add new rows or columns.
- Click on the **Rows Above or Rows Below icons in the Table toolbar** to insert one row above or below the selected one.
- Click on the **Columns Left or Columns Right icons in the Table toolbar** to insert a column to the left or right of the selected one.
- Choose **Insert** → **Rows Above/Below or Insert** → **Columns Above/Below**. Set number to define the number of rows or columns to be inserted, and select the Position as Before or After.
- Click **OK** to close the dialog box.

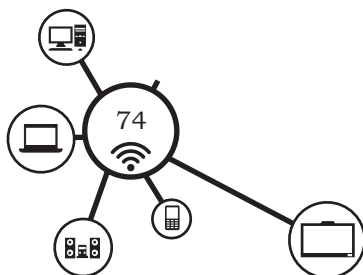
### (c) Deleting rows and columns

To delete one or more rows or columns, place the cursor in the row or column you want to delete and do one of the following:

- Click on the Rows or Columns icons on the Table toolbar
- Right-click and choose **Delete** → **Rows** or **Delete** → **Columns**.
- Press **Alt+Delete** on the keyboard and use the arrow keys to delete rows or columns as described above for inserting.

### (d) Splitting and merging tables

One table can be split into two tables, and two tables can be merged into a single table. Tables can only be split horizontally.



## (i) To split a table

- Place the cursor in a cell that will be in the top row of the second table after the split (the table splits immediately above the cursor).
- Choose **Table** → **Split Table** from the Menu bar.
- A Split Table dialog opens. You can select No heading or an alternative formatting for the heading—the top row(s) of the new table.
- Click **OK**. The table is then split into two tables separated by a blank paragraph.

## (ii) To merge two tables

- Delete the blank paragraph between the tables. You must use the Delete key (not the Backspace key) to do this.
- Select any cell in one of the tables.
- Right-click and choose Merge Tables in the context menu. You can also use **Table** → **Merge Table** from the Menu bar.

## (e) Deleting a table

## (i) To delete a table

- Click anywhere in the table.
- Choose **Table** → **Delete Table** from the Menu bar.

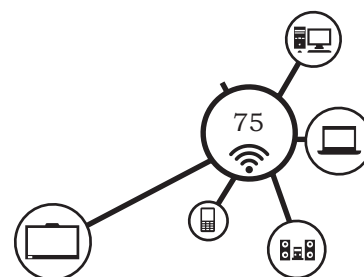
Or

- Select from the end of the paragraph before the table to the start of the paragraph after the table.
- Press the *Delete* key or the Backspace key.

## (f) Copying a table

To copy a table from one part of the document and paste onto another part:

- Click anywhere on the table.
- From the Menu bar choose **Table** → **Select** → **Table**.
- Press *Ctrl+C* or click the **Copy** icon on the Standard toolbar.
- Move the cursor to the target position and click on it to fix the insertion point.



- Press *Ctrl+V* or click the **Paste** icon in the Standard toolbar.

### (g) Moving a table

To move a table from one part of a document to another part:

- Click anywhere in the table.
- From the Menu bar, choose **Table** → **Select Table**.
- Press *Ctrl+X* or click the **Cut** icon in the Standard toolbar.
- Move the cursor to the target position and click on it to fix the insertion point.
- Press *Ctrl+V* or click the **Paste** icon in the Standard toolbar. (This pastes the cells and their contents and formatting.)
- Return to the original table, click somewhere in it and then choose **Table** → **Delete Table** from the Menu bar.

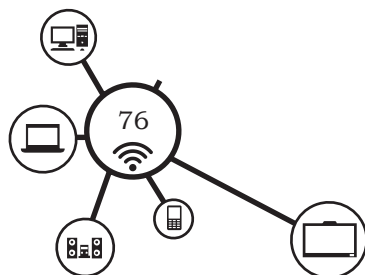
### Let's Practice 6

Create a table as shown in the figure below. Save it in your folder.

Time Table Class 9									
Day/ Period	1	2	3	4		5	6	7	8
Time	7:30 to 8:10	8:10 to 8:50	9:00 to 9:40	9:40 to 10:20	10:20 to 10:40	10:40 to 11:20	11:20 to 12:00	12:10 to 12:50	12:50 to 13:30
Day 1					LUNCH BREAK				
Day 2									
Day 3									
Day 4									
Day 5									
Day 6									

### Printing a document

To quickly print the document without any option, Click the Print icon. The entire document will be sent to the default printer defined for your computer.



## Print preview

Print Preview is useful to check the document before printing. A user can check whether the document is prepared as needed, such as indentation, borders, etc.

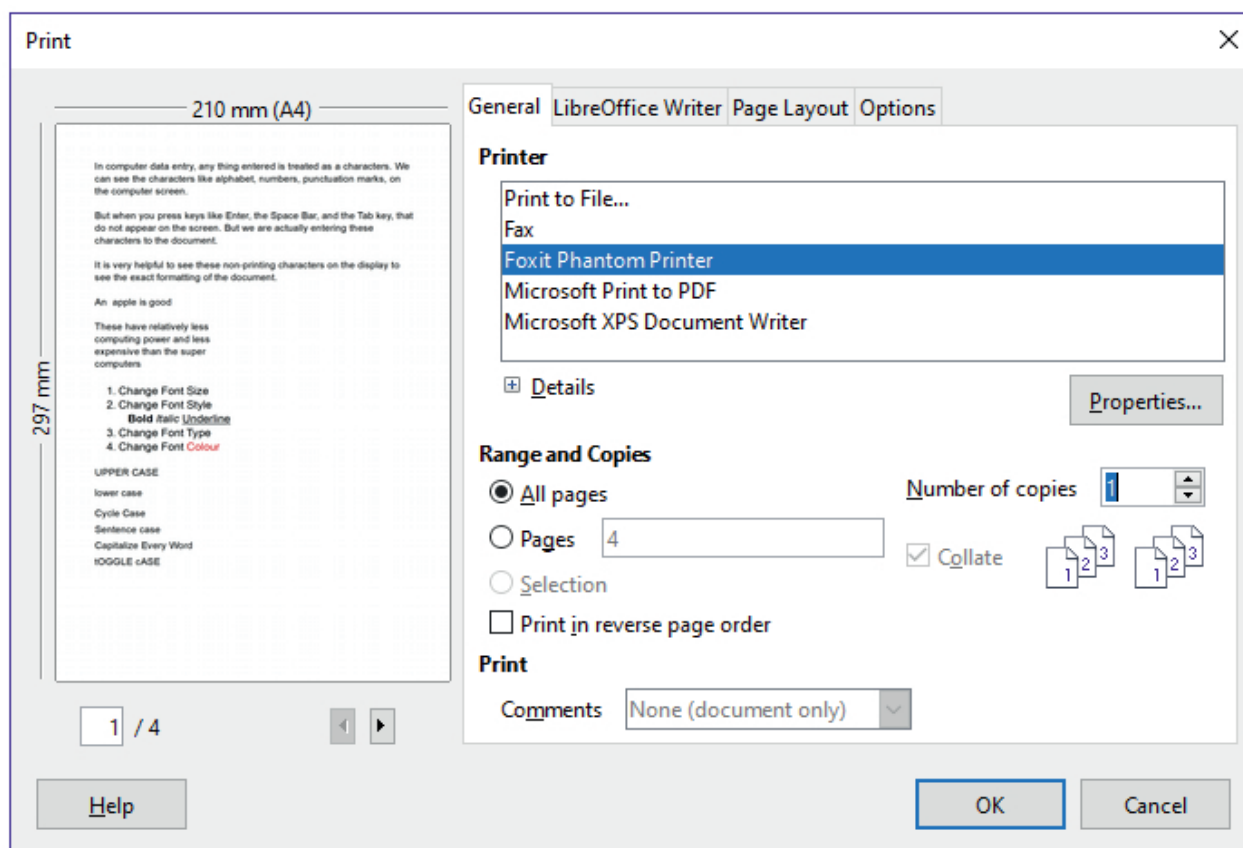


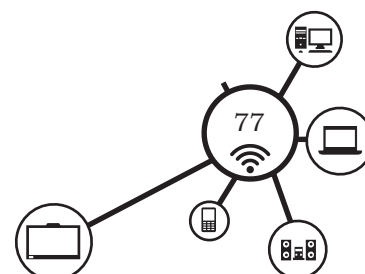
Fig. 3.37: Controlling printing

## Controlling printing

To print the document with certain options, use the Print dialog (**File** → **Print** or **Ctrl+P**). A Print dialog box will appear as shown in Figure 3.37.

From the Print dialog, you can choose options as per your requirement. They are Printer, Properties, Print Range, Copies and Options. The selected options will work for the current document only.

If you click on a small triangle (▼), a list of names of printers (only those which are installed on your computer) will appear in line with the Name. You can select the printer which you want.



## Printing all pages, single and multiple pages

One can select the printing option as per their choice. There are three options to print the number of pages in a document.

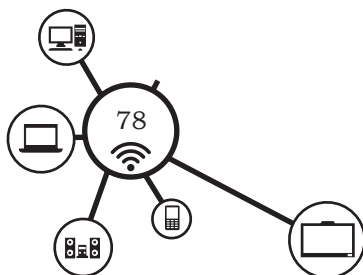
- To print all the pages in sequence, choose the option All pages.
- To print a single page, or number of non-consecutive pages, choose the option Pages, and give the page numbers separated by comma. If you want to print the pages that are consecutive give the range of pages first and last page (for example 3-8).
- To print only the selected text, choose the option, Selection.

## Mail Merge

Mail Merge is a very important feature of word processor. It is used to create a series of same documents with multiple addresses. Mail merge is the process of merging the main document (letter or certificates) with the mailing address of various persons. The main document is merged with the mailing address, hence the name mail merge. It is used to send invitations, letters or to print certificates for several people. For example, if you wish to inform your customers of a new product, then the company information and information about the new product are the same in all the documents, but the recipient information changes (first name, last name, address, greeting ...).

For example, if your principal or class teacher wants to send a letter or notice to your parents regarding any meeting or function, obviously, the matter of the letter will be the same but the addresses will be different for different parents. One way is, to create a letter in Writer, copy the address from address list to change the address of each set of parents and print the letter. The procedure of copying and changing is repeated as many times as the number of parents. This way creating multiple documents becomes very time consuming and tedious. It is not possible if there are hundreds or thousands of addresses. The word processor has a special feature of mail merge

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to accomplish this task in one stroke. In mail merge two documents are created. One with the common contents is the main document or form letter and other holding the address list is called the data source. The form letter contains the actual information and variable names for the data which varies in different letters. Data source contains values of the corresponding variables of the main document. For example, the address of all the parents with respective time would be stored in data source.

Form letter consists of the main document and the data source.

## Creating the data source

A data source is a set of mailing addresses in the form of a rows and columns generally called database. The content of the database is in the form of data records. Each row is a record of each person, which contains the various fields, such as name, address, pincode.

To create an address book using spreadsheet or database is little easier, as they use the table format to store the data. It is also possible to create an address book during the mail merge process using mail merge wizard (Figure 3.38[a]).

Using Mail Merge:

1. Create a new document and type the letter to be sent to the multiple recipients.

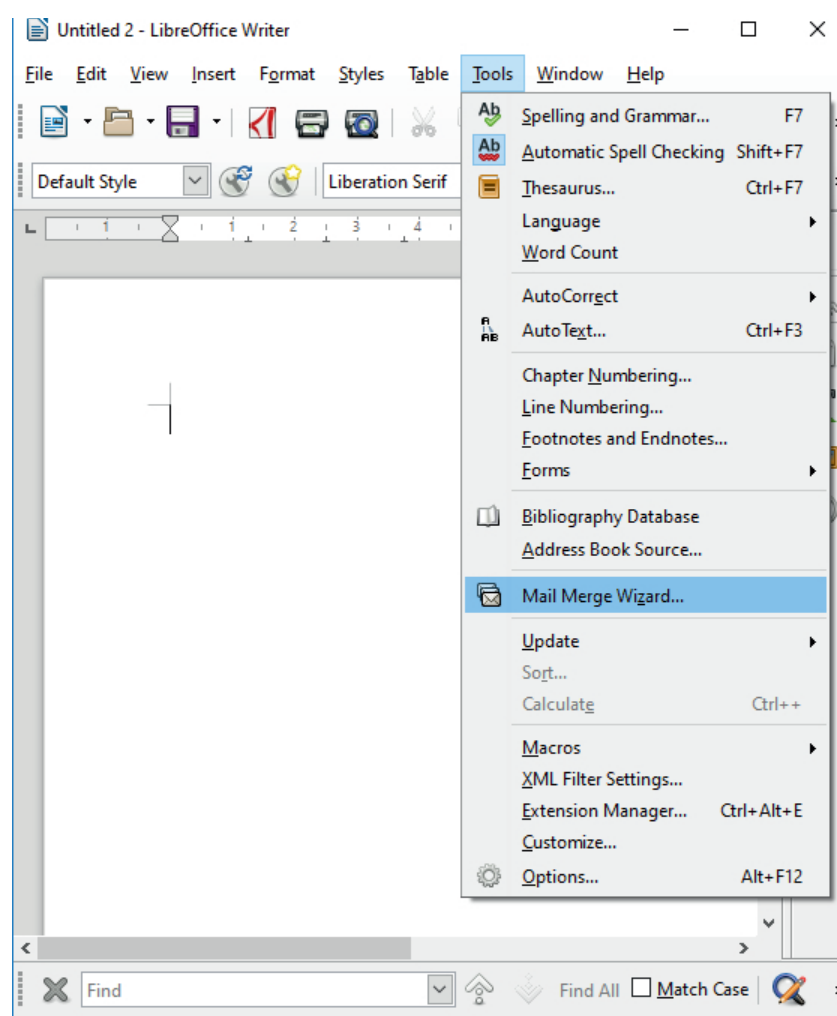
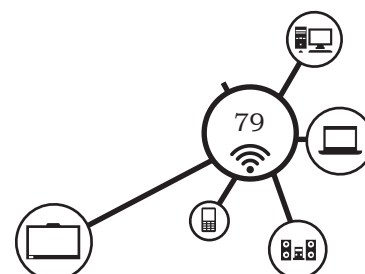


Fig. 3.38 (a) Select Mail Merge Wizard





2. To create multiple letters using Mail Merge Wizard, select **Tool** → **Mail Merge Wizard**, as shown. A window will appear as shown in Figure 3.38(b).

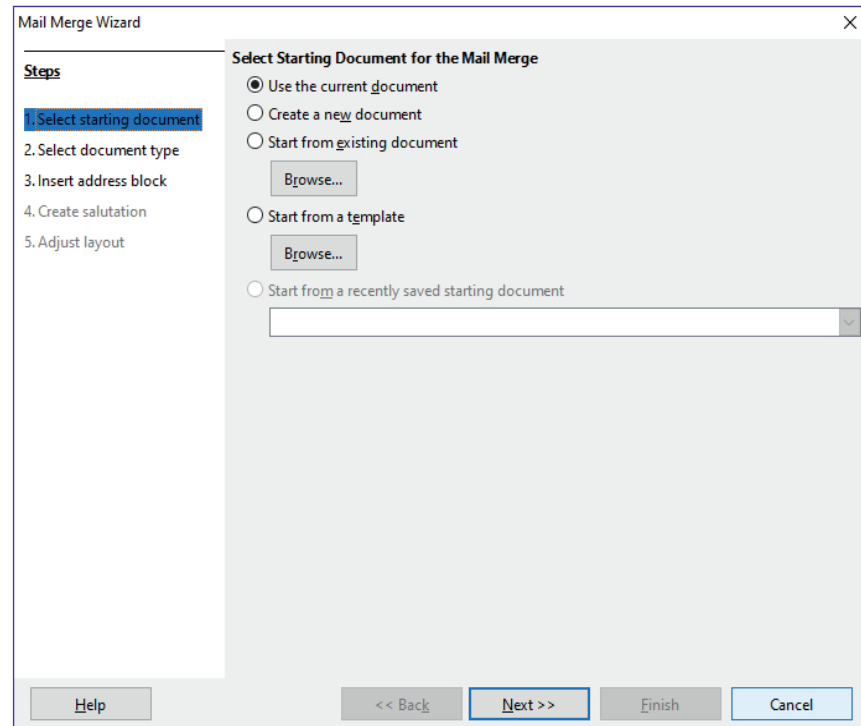


Fig. 3.38 (b) Select Main document

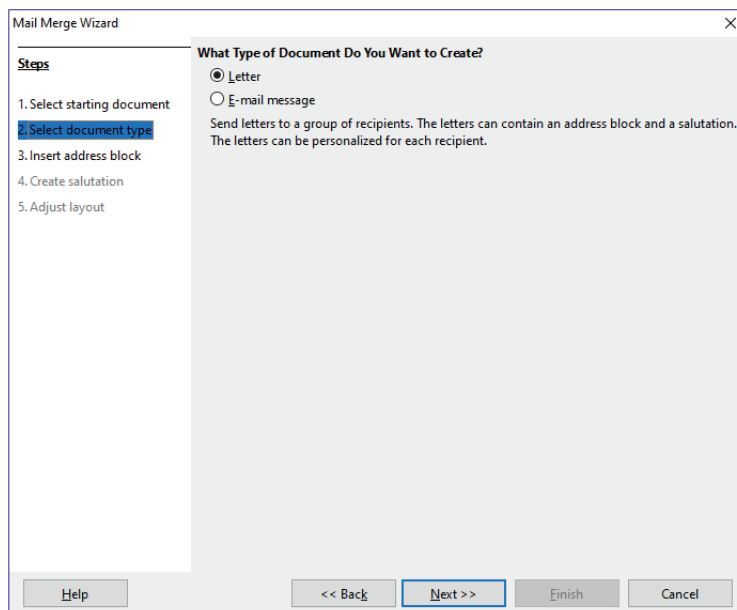
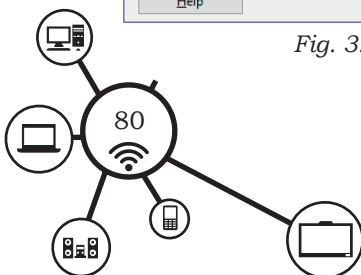


Fig. 3.38 (c) Select document type

3. Select Step1, '**Select Starting document**' → **Use the current document** → **Next**'. Click on the **Next** button move to the next step.
4. In Step 2, select the **Document type** → **Letter** → **Next** as shown in Figure (3.38c)
5. In Step 3, click on the button "**Select Address List**". The "**Select Address List**" window will open, which will



allow you to create the recipient list as shown in Figures 3.38 (d and e).

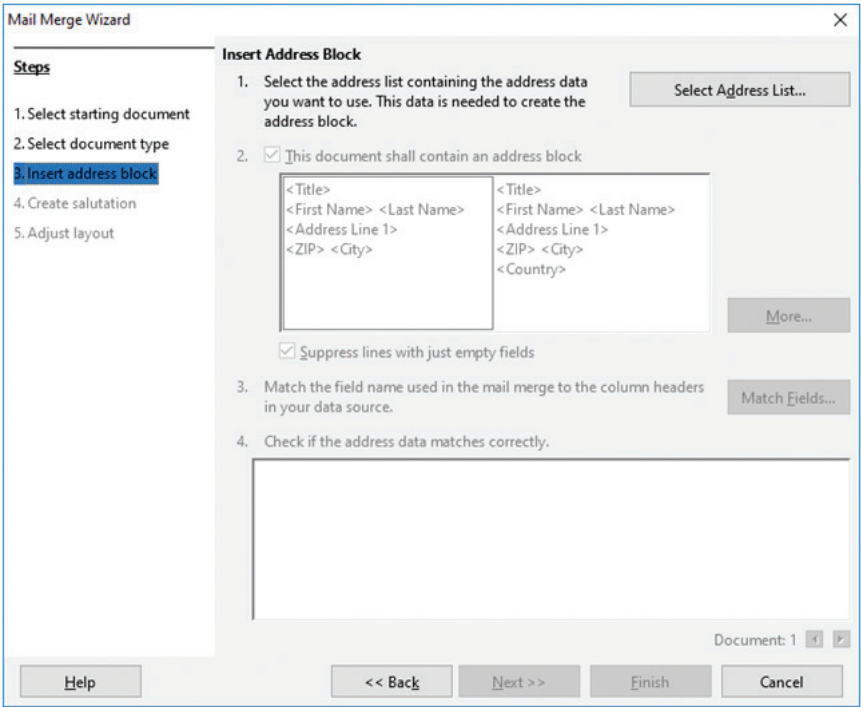


Fig. 3.38 (d) Select Address List

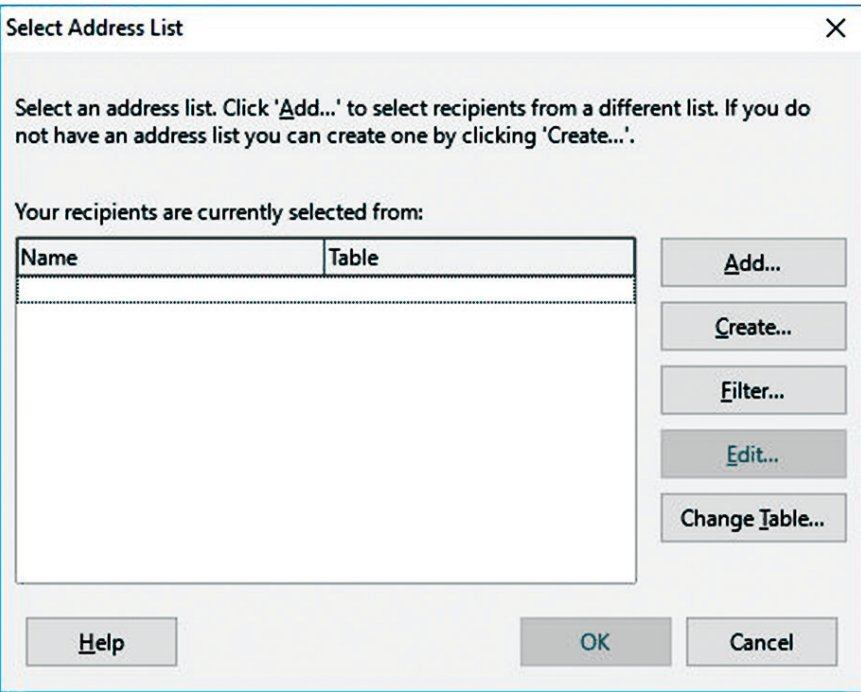
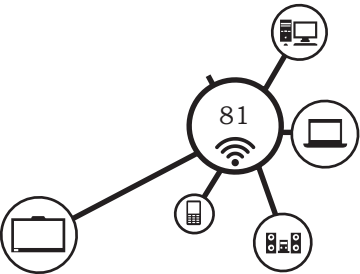


Fig. 3.38 (e) Create Recipient List

6. Click on the **Create** button. After clicking on the **Create** button a New **Address List** window will



appear as shown in Figure (3.38f). In this window under the **Address Information** section you can enter the information of the recipient as shown in the Figure 3.38 (f).

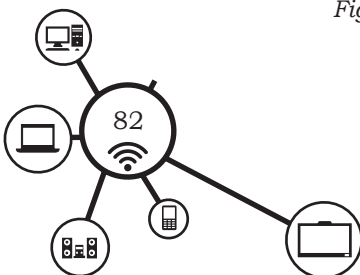
The 'New Address List' window features a section titled 'Address Information' with the following empty input fields: Title, First Name, Last Name, Company Name, Address Line 1, Address Line 2, City, State, and ZIP. To the right of these fields are four buttons: 'New', 'Delete', 'Find...', and 'Customize...'. At the bottom, there is a 'Show entry number' section with navigation buttons (|<, <, 1, >, >|) and three main buttons: 'Help', 'OK', and 'Cancel'.

Fig. 3.38 (f) New Address List

The 'New Address List' window is now populated with the following data: Title: Dr., First Name: Riya, Last Name: Singh, Company Name: PSSCIVE, Address Line 1: SHYMALA HILLS, Address Line 2: NEAR REGIONAL COLLEGE, City: BHOPAL, State: M P, ZIP: 462002, and Country: INDIA. The 'Show entry number' section remains the same. The 'New', 'Delete', 'Find...', and 'Customize...' buttons are still present on the right, and the 'Help', 'OK', and 'Cancel' buttons are at the bottom.

Fig. 3.38 (g) Adding new address list

7. If you want to fill the data of the recipient as per the default fields, then enter the data as shown in Figure 3.38 (g).
8. If you wish to **customise** the fields of recipient information, click on Customise button. A '**Customise Address List**' window will appear as shown in Figure 3.38 (h). Now you can add, delete or rename any field name. You can also



change the order of appearance of the fields using up/down arrow button.

- (a) Add (for a new field)
- (b) Delete (to delete an unnecessary field)
- (c) Rename (to change the name of the field)

After customising the fields, enter the data in the new format.

9. After entering the data of first recipient as shown in Figure 3.38 (g), click on the **New** button to enter the information of the next recipient. After entering the information of the entire recipient, click on the **OK** button to close the list.
10. After clicking **OK** button, the **Save As** dialog box as shown in Figure 3.38 (i) will appear, which will allow to save the list of recipient in **.CSV** format (say MyList.csv) as shown in Figure 3.38(i).

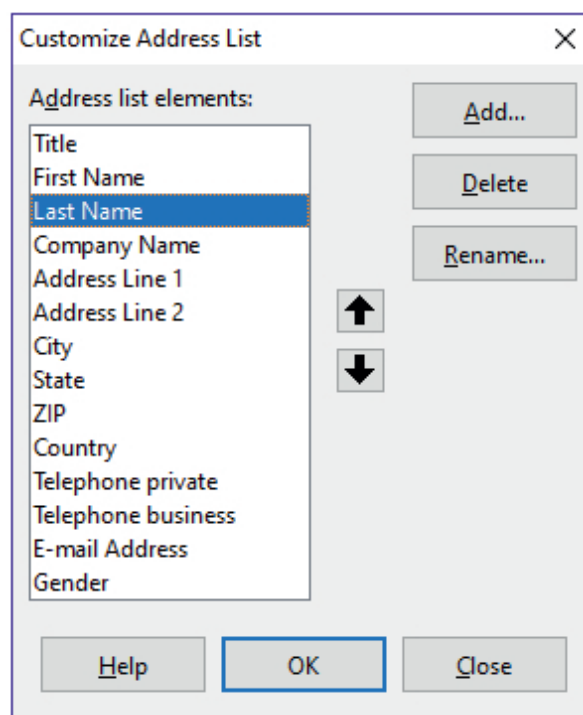


Fig. 3.38 (h) Customizing filed names

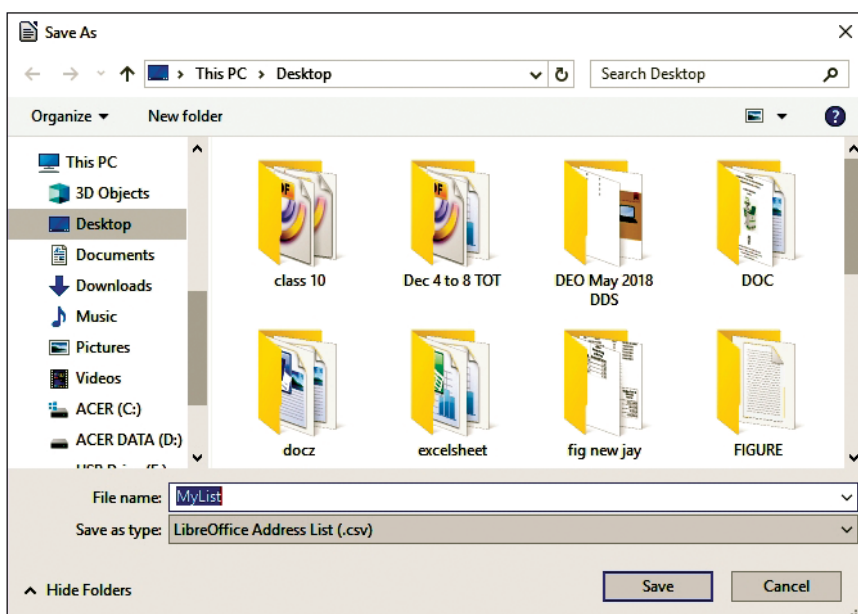
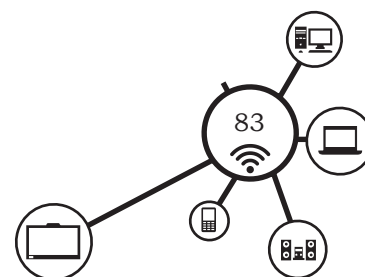


Fig. 3.38 (i) Save recipient list in .CSV format



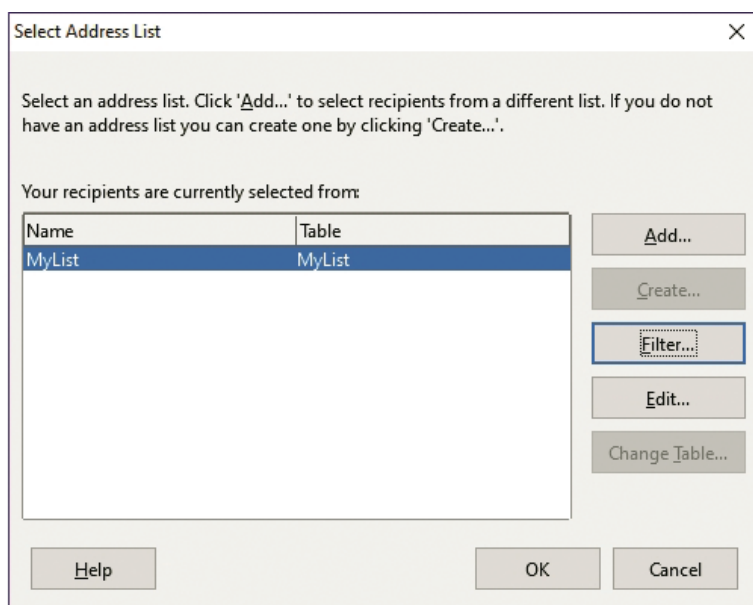


Fig. 3.38: (j) Recipient list created

11. After saving the list a window will appear as shown in Figure 3.38 (j), which will display the various recipient list created till now. You can select any of the created list till now. Select the required list and click on **OK** button from any of the list to send the letter.

12. After clicking on **OK** button, you will move to Step 3 of Mail Merge Wizard,

a window Insert Address Block will appear, which will show you the address block as shown in Figure 3.38 (k).

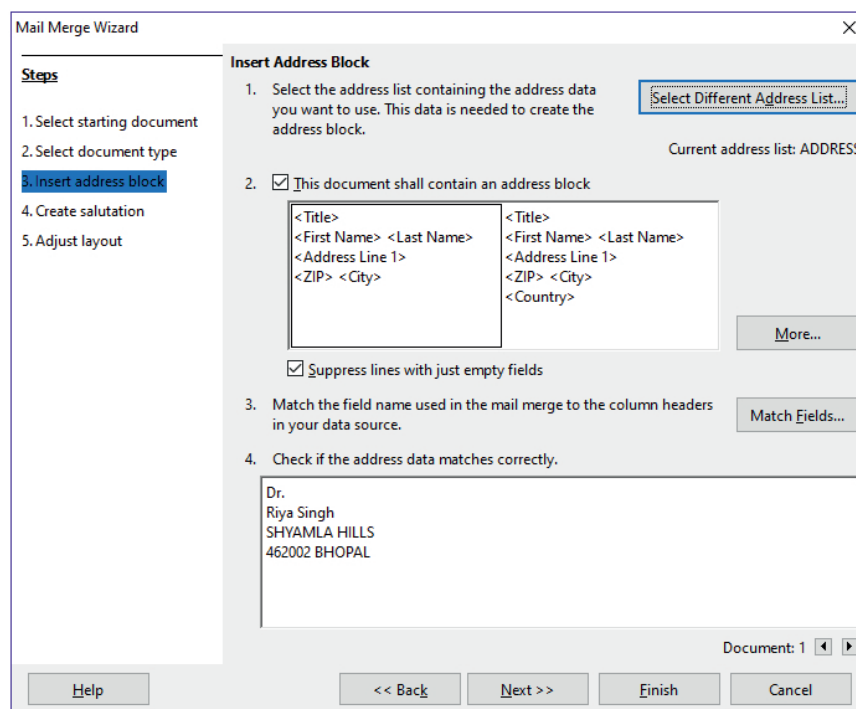
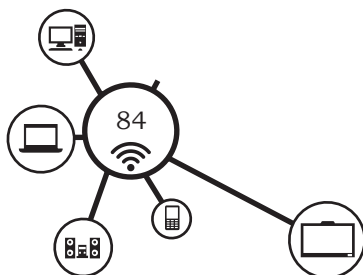


Fig. 3.38: (k) Insert Address Block

13. Click on **Next** button, you will move to Step 4 of Mail Merge Wizard. A **Create Salutation** window



will appear as shown in Figure 3.38 (l) to set the salutations for male and female recipients. A way of distinguishing one group from another is defined by choosing from the offered Field names, for example, Gender and by entering the Field value, for example, Female.

14. Click on **Next button**, you will move to last Step 5 of Mail Merge Wizard. An Adjust layout window will appear as shown in Figure 3.38 (m) to set the layout of the recipient address on the page. You can set the top and left margin. Click on Finish button to merge the letter with the recipients address.

15. In the next step, the Writer will display the document with the Mail Merge Toolbar below the standard toolbar as shown in Figure 3.38 (n).

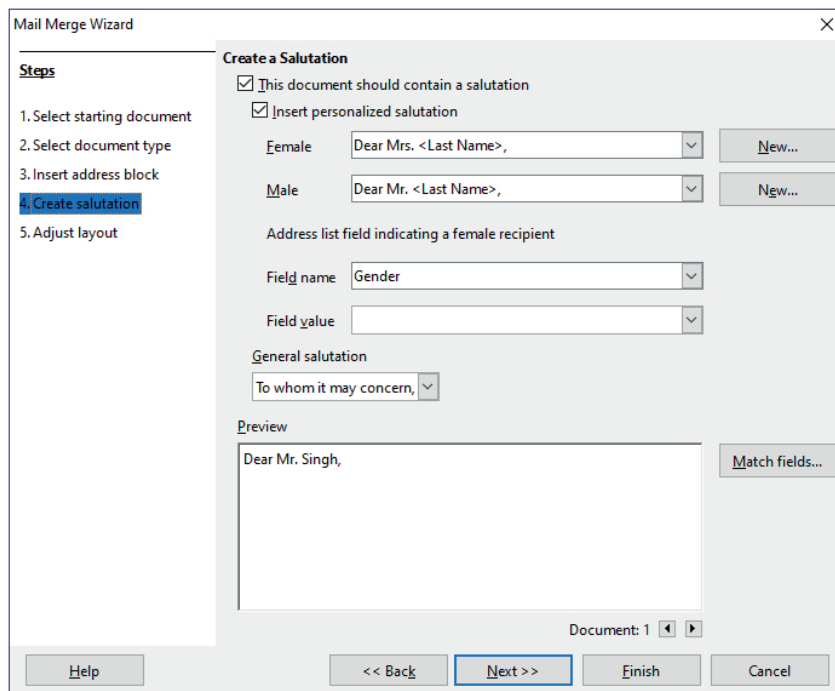


Fig. 3.38 (l) Create salutation

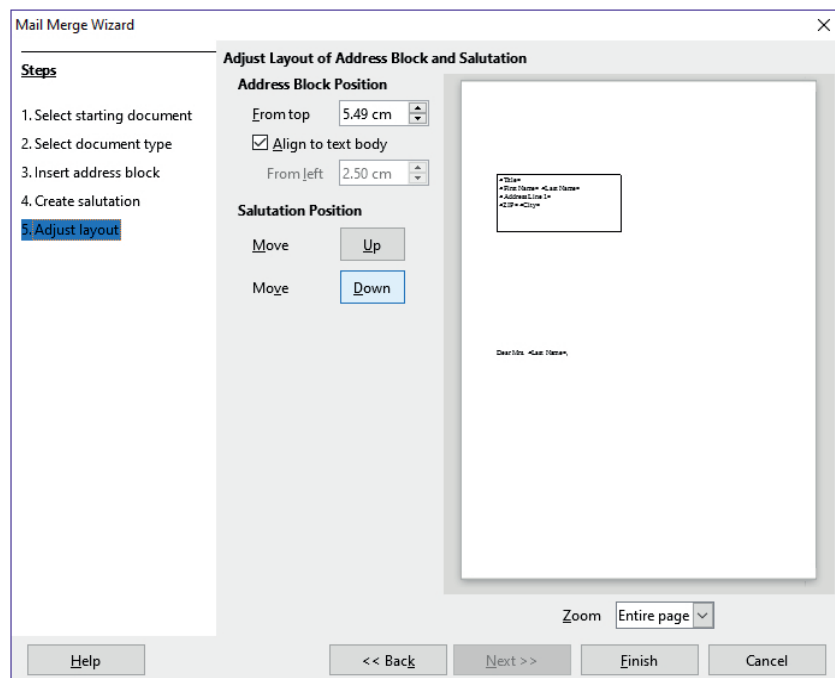
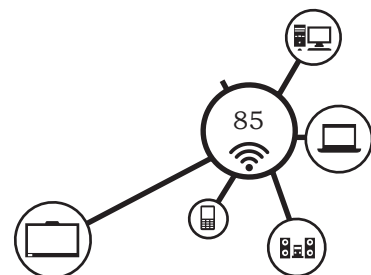


Fig.3.38 (m) Adjust layout of Address Block





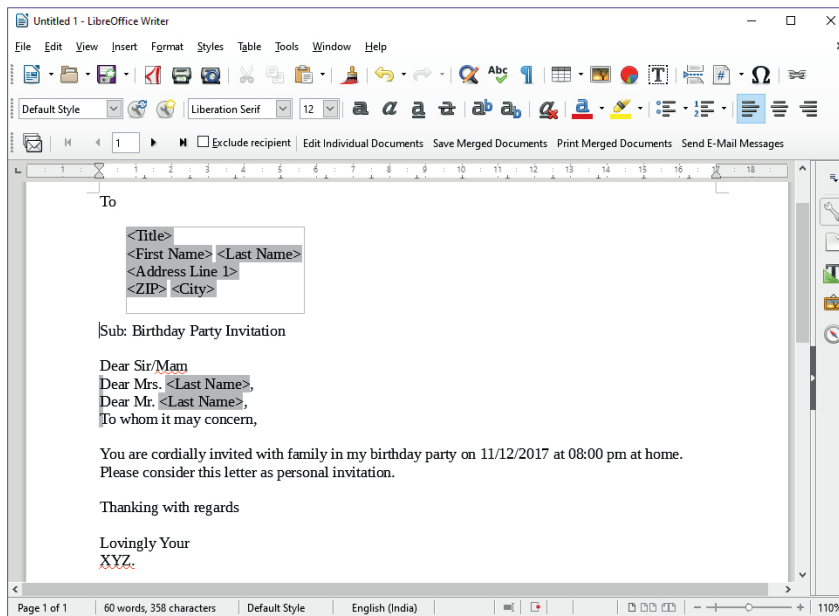


Fig. 3.38 (n) Letter with mail merge toolbar

16. Now click on **Edit Individual Documents** button to merge the letter with the address of the recipients. Here you can verify all letters of the recipients before printing.
17. You can use the other options on the Mail Merge toolbar, such as

- (a) to exclude some of the recipient check on the checkbox of **Exclude recipient**.
- (b) to save the merged document, click on the **Save Merged Documents** button.
- (c) to print the merged document, click on the **Print Merged Documents** button.
- (d) to send the letters by email, click on the **Send Email Messages** button.

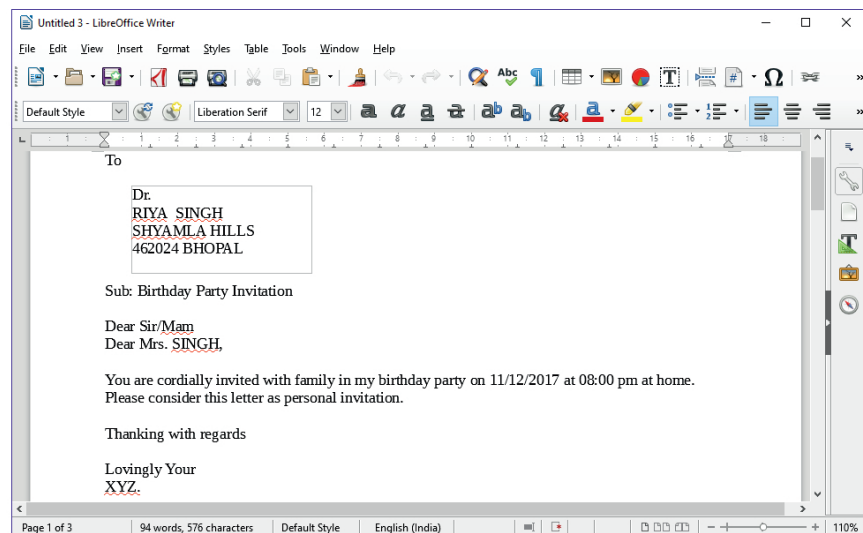
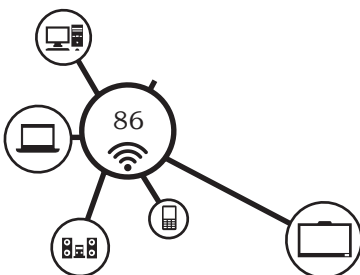


Fig. 3.38 (o) Final letter merged with the address



## Let's Practice 7

1. Type the letter shown in the figure given below.  
Do not type the words and symbols appearing in between <...>, as these are the fields. Keep single space. Save the document in your folder.

**Computer Centre**  
**DMS School**  
**Bhopal**

Date: 3 August 2018

<Title>

< Address Line1 >

< Address Line2 >

### Teacher Parent Interact Day

Please take this opportunity to discuss the progress of your child <Child Name> by meeting the class teacher on <date> at <Time> at the Classroom.

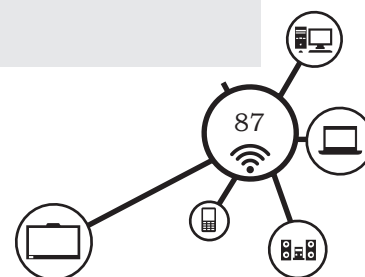
## Principal

2. Use Mail Merge. For Data source/Address List, enter data of 10 people as shown in the table below.

Title	First Name	Last Name	Address 1	Address 2	Child Name	Date	Time
Mr.	Raman	Sinha	M P Nagar	Bhopal	Deepti	25-07-2018	9:00 am
Dr.	Manish	Mangal	Shyamla Hills	Bhopal	Shravya	25-07-2018	9:30 am
Mrs.	Manmeet	Kuar	Akriti City	Indore	Simran	26-07-2018	9:00 am

## Let's Practice 8

1. Open the Word Processing software and prepare the following.
  - Certificates
  - Invitation cards
  - Forms



- Letters
  - Announcements
  - A banner
2. Save the document. Create its PDF file.

## Check Your Progress

### A. Multiple Choice Questions

1. Which of following is not a component of the Office Suite?
  - (a) Writer
  - (b) Impress
  - (c) Internet Explorer
  - (d) Base
2. The most widely used word processing software in late 1970s was\_\_\_\_\_.
  - (a) Word Perfect
  - (b) Word
  - (c) Word Star
  - (d) Writer
3. We can change the mistakes noticed in which of the following?
  - (a) Electronic typewriter
  - (b) Word processor software
  - (c) Simple typewriter
  - (d) Both (a) and (b)
4. Header and Footer is available in which of the following menus?
  - (a) File Menu
  - (b) Insert Menu
  - (c) View Menu
  - (d) Edit Menu
5. To hide or view ruler we should go to which of the following menus?
  - (a) Tools Menu
  - (b) Insert Menu
  - (c) View Menu
  - (d) Edit Menu
6. To check the grammar we should go to which of the following menus?
  - (a) Tools Menu
  - (b) Insert Menu
  - (c) View Menu
  - (d) Edit Menu

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