

2.1 Application Software

Application software is used to perform various applications or tasks on the computer. Today, a wide variety of application software is available to meet any user need. Individuals and businesses use application software to perform hundreds of tasks such as:

- Writing letters
- Making presentations
- Managing finances
- Managing business inventory
- Preparing tax returns
- Designing and editing images
- Accessing the Web-based resources
- Participating in videoconference
- Playing games

2.2 Forms of Application Software

Application software is available in the following forms:

2.2.1 Packaged Software

Packaged software or **retail software** is a copyrighted available for different types of users. It is not developed for a particular user or organization. Examples of packaged software are word processing and spreadsheet software. Many packaged software are also available on the Web.

2.2.2 Custom Software

Custom software is designed for a particular customer or organization. It is developed to meet the exact requirements of a particular customer or organization. The cost of customized software is more than packaged software.

A software that is developed for a particular university is an example of customized software. The software can be developed by single programmer or a team of programmers.

2.2.3 Shareware *Ex* MATLAB, Mathematica

Shareware is a copyrighted software that is available free of cost for a limited time period. The user can use shareware for a certain time period. The user has to purchase it if he wants to use it further. The shareware software should be uninstalled or removed from the computer if the user does not want to use it any more. Normally, shareware software stops working properly when the time period is expired. It displays a message to the user to purchase it.

Shareware is a version of software that is used by the users for evaluation purpose. Software developers provide shareware software to the users to check and evaluate its performance. A large number of shareware software are available on Internet. The users can download and use these software for evaluation.

2.2.4 Freeware

Freeware is a copyrighted software that is available free of cost for unlimited time period. Demo disks often come under this category. Many software programs are produced for educational purpose. These programs are available free of cost to all.

2.2.5 Public Domain Software

Public domain software is also free software. It is basically donated for public use. It has no copyright restrictions. Any person can use or distribute public domain software to others without any cost.

2.2.6 Open Software

Open source software is provided for use, modification and redistribution without any cost. Anyone can modify the instructions of software and redistribute it. The open source software usually can be downloaded from the Internet.

2.2.7 Web Applications

Web application or **Web app** is a type of software that is accessed with a Web browser. Most Web apps do not require any installation on local computer or handheld device. The software typically runs on a remote computer connected to the Internet or network. The computer requires a Web browser and an Internet connection to use the Web apps. The user can visit the specific website and use the required Web app. Many Web apps are available free of cost whereas some require a fee to use.

The use of Web-based software is growing rapidly. Many business software services are offered as **SaaS** like scheduling, customer service, accounting, project management etc. These applications require a subscription fee per user per month. The companies that deliver SaaS are called **application service providers (ASPs)**.

Web apps are examples of cloud computing. They are also known as **Software as a Service (SaaS)** or **cloudware**. Some popular Web apps include **Hotmail**, **Google Docs**, **OneDrive** and **ThinkFree Online**.

Advantages

- Web app can be accessed from any computer with a Web browser and an Internet connection.
- Some Web apps can also be accessed via a mobile phone and other mobile devices.
- The data is usually stored on Web app's website and can be accessed from anywhere.
- Web apps are always up to date and the user does not have to install updates.
- Web apps do not require local storage space.

Disadvantages

- Web apps may become slow than applications stored on a local hard drive.
- Web apps typically have fewer features than applications installed locally.
- Many Web apps put a limit on the file size of the documents.
- The user cannot access the Web app and stored data if the server goes down or if there is no Internet access.
- The data may be more vulnerable to exposure or loss because it is out of user control

2.2.8 Mobile Apps

Mobile app are designed for handheld devices such as smartphone, tablet computer or enhanced media player. They are generally small applications sold through an online apps store. They are downloaded and installed on the handheld devices. Many apps are available for free or at very nominal fee. Different types of mobile apps are available today such as games, entertainment apps, business apps, calendars and communication apps etc. Many banks also provide mobile app for mobile banking.

Most handheld devices can use both Web apps and mobile apps. The difference is that Web apps run on a remote computer whereas mobile apps run from the handheld device. Games and entertainment seem to dominate mobile apps, whereas shopping and social apps dominate the Web apps category.

Installing Mobile Apps

The mobile apps can be installed on the handheld devices by downloading the app from app store. For example, the apps for iPhone, iPad and iPod Touch can be downloaded from the online Apple App Store. Most handheld devices have an icon to open the app store for the device. The user can select an app and pay for it if required. The installation process places the app's program file on the storage device and creates an icon to launch the app.

2.2.9 Portable Software

Portable software is designed to run from removable storage devices such as a CD or USB flash drive. These programs do not need any installation and can be run on almost any computer. No configuration data is stored on the hard disk. There is no need to insert any entries in Windows Registry about the software. Many portable software are available including LibreOffice Portable, Thunderbird, Firefox and FileZilla which are designed to run from USB flash drives.

X 2.3 Software Installation, Upgrades and Updates

Software installation is a process of placing a program into a computer so that it can be executed. Software for desktop computers can be purchased on CD/DVD or can be downloaded from the Internet. Mobile software is downloaded from an app store such as Apple's App Store. In any case, the software is installed using its installation program. It becomes ready to use after installation.

2.3.1 Software Updates, Patches and Service Packs

The software publishers periodically replace older versions of software product with new version known as software upgrade. Each upgrade is assigned a version number such as version 1.0 and version 2.0. The upgrading to a new version usually involves a fee but it is usually less costly than purchasing the new version.

A software update or software patch is a small section of program code that replaces part of the software currently installed. The term service pack is a set of updates related to an operating system. The updates and service packs are designed to correct problems and address security issues and are usually free. They are typically numbered using decimal places. For example, an update may change version 2.0 to version 2.01.

Many software applications allow the user to set preferences to receive notifications and updates. The user can also check for updates at the publisher's Web site or use software's Automatic Update option that downloads and installs updates automatically. Most popular software can be configured to check an update and gives the option to download and install it. The updates and service packs should be installed when they become available.

2.4 Productivity Software

Productivity software help the user to work more effectively and efficiently to perform various tasks at home, school and business etc. These programs can be stand alone software packages or can be purchased as a bundle. Productivity software include word processors, spreadsheets, databases, project management and personal information management etc.

2.4.1 Word Processing Software

Word processing software is the most widely used type of application software. It is also called word processor. It is used to create, edit and format documents such as letters, reports and resumes etc. Word processing is used by business organizations, government agencies and individuals for creating different types of documents. Some examples of word processing software Microsoft Word, iWork Pages and LibreOffice Writer.

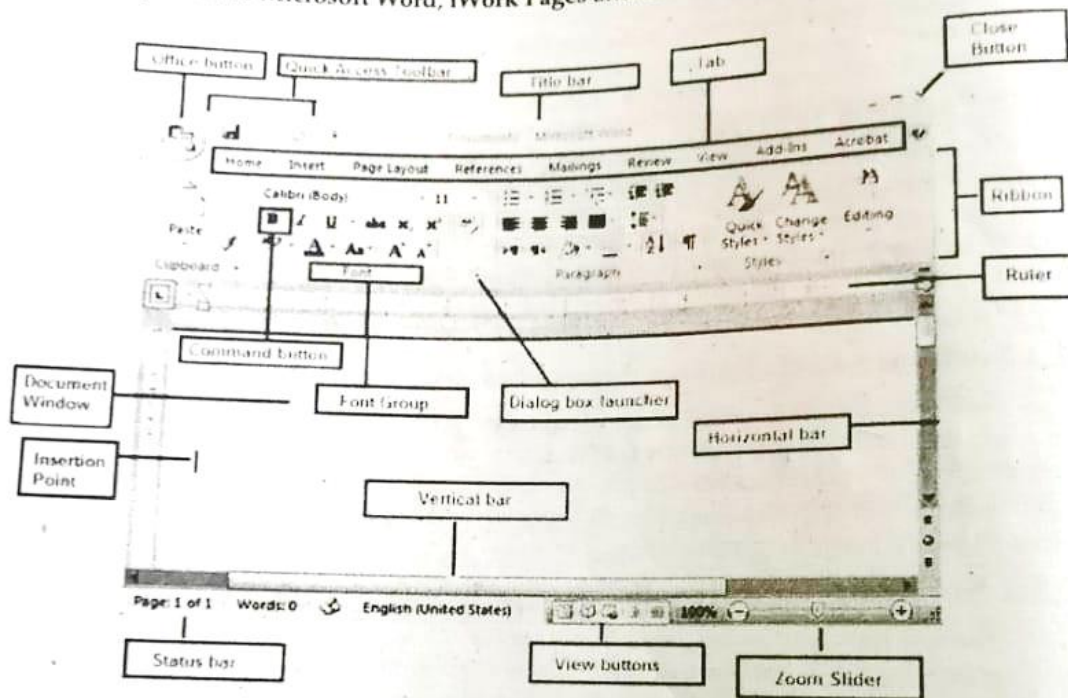


Figure 2.1: Word processing software

Features of Word Processing Software

Some important features of word processing software are as follows:

- Word Wrap** The word processor automatically moves to the next line when the user one line is filled with text. It adjusts the text if the margins are changed.
- Formatting** Word processing software provides a wide range of formatting facilities. The user can change the color, background color, size and style of text. The formatting can be applied on characters, paragraphs or whole pages.
- Printing** Word processing software provides printing facility. The user can print documents to get a hard copy. The user can print the whole document or any range of pages.
- Find and Replace** The Find feature is used to find a certain character, word or phrase in the document. The Replace feature is used to find a certain character, word or phrase in the document replace it with another.

Spelling and Grammar	Spelling and Grammar features is used to detect and correct the spelling and grammatical mistakes in the documents.
AutoCorrect	Word processing software automatically corrects many commonly misspelled words and capitalization errors with AutoCorrect feature.
Thesaurus	This feature provides the synonyms for a word in the document. A word with same meaning is known as synonym.
Tables	Word processing software provides the facility of tables to organize data. Table is a collection of rows and columns. The user can easily add rows and columns from a table without disturbing data.
Column	Word processing software allows dividing the page in the form of columns. The user can use any number of columns in the document. A page with columns looks like text in a newspaper or magazine.
Header and Footer	Word processing software provides the facility to insert headers and footers in a document. Header is the text that appears at the top of each page. Footer is the text that appears at the bottom of each page. Page numbers, company names or dates are normally used in headers and footers.
AutoText	Word processing software provided the feature to store text permanently for using repeatedly in documents.
Template	A template is a preformatted document that serves as a model to create new documents. It is used to create professional letters, memos and reports easily.
Mail Merge	Mail merge is a process of combining a form letter with the contents of database. It is usually a name and address list. The mail merge feature make it easy to send the same letter to a list of different people with the correct name and address printed on each letter.
Voice Recognition	Some latest word processing software provides voice recognition facility. The user speaks into the microphone and the words are written in the document. It can also recognize different commands.

X Uses of Word Processing Software for Office Work

Word processing software can be used to manage office work in the following ways:

Preparing Letters	Word processing software can be used in office for writing letters to different officials, customers or government authorities. Office personnel can interact with different people through letters prepared in MS Word.
Preparing Applications	Word processing software can be used in office to write applications to different officials or government authorities. Word processor provides many facilities to write attractive and effective applications.
Preparing Notices	Word processing software can be used in office to prepare important notices to be issued to different employees. An organization issues different types of notices to its employees and workers.

Preparing Faxes	Word processing software can be used in office to prepare important faxes. Fax is an important way to communicate with people. It also provides predefined styles of faxes.
Preparing Memorandums	Word processing software can be used in office to prepare memorandums. Word processor also provides predefined styles of memorandums.
Preparing Legal Pleadings	Word processing software can be used in office to prepare legal pleadings against different people or organizations to get your right. Word processor also provides predefined styles of legal pleadings.
Preparing Meeting Agendas	Word processing software can be used in office to prepare agendas for different meetings. These agendas can be distributed to different members of the meeting. It also provides predefined styles of agendas.
Preparing Calendar	Word processing software can be used in office to prepare calendar. Word processor also provides predefined styles of calendar.
Preparing Resumes	Word processing software can be used in office to prepare different types of resumes. People can use these resumes for jobs. Word processor also provides predefined styles of resumes.
Preparing Reports	Word processing software can be used in office to prepare different reports. These reports are very important for making critical decision in the office. Word processor also provides predefined styles of legal pleadings.

2.4.2 Spreadsheet Software

Spreadsheet software is a widely used application software for calculations. Millions of people use spreadsheet software to perform different tasks more quickly and accurately. It provides worksheets to enter data. A worksheet is a collection of rows and columns. It allows the user to make different calculations using formulas and built-in functions. Spreadsheet software also provides the facility to display data graphically using charts. Some examples of spreadsheet software are **Microsoft Excel**, **iWork Numbers**, **Google Docs Spreadsheets** and **LibreOffice Calc**.

Application of Spreadsheet

Some important applications of spreadsheet software are as follows:

- It can be used by corporations to track profit and losses
- Economists can generate growth graphs of country's economy
- Statisticians can calculate probability of crashing the market
- Women can manage their household budgets

Advantages

Computerized spreadsheets can calculate data easily, accurately and efficiently. Large quantities of numbers are added, subtracted, multiplied and divided. When new information is inserted in existing spreadsheet, revised calculations are performed automatically.

- It increases the ease and speed of calculating.

- It makes it easy to modify information and recalculate automatically.
- It displays numeric data as a chart or graphs.
- It incorporates numeric data into another software application.

Disadvantages

- Spreadsheet software cannot process a large volume of data quickly.
- It does not provide much programming facilities.

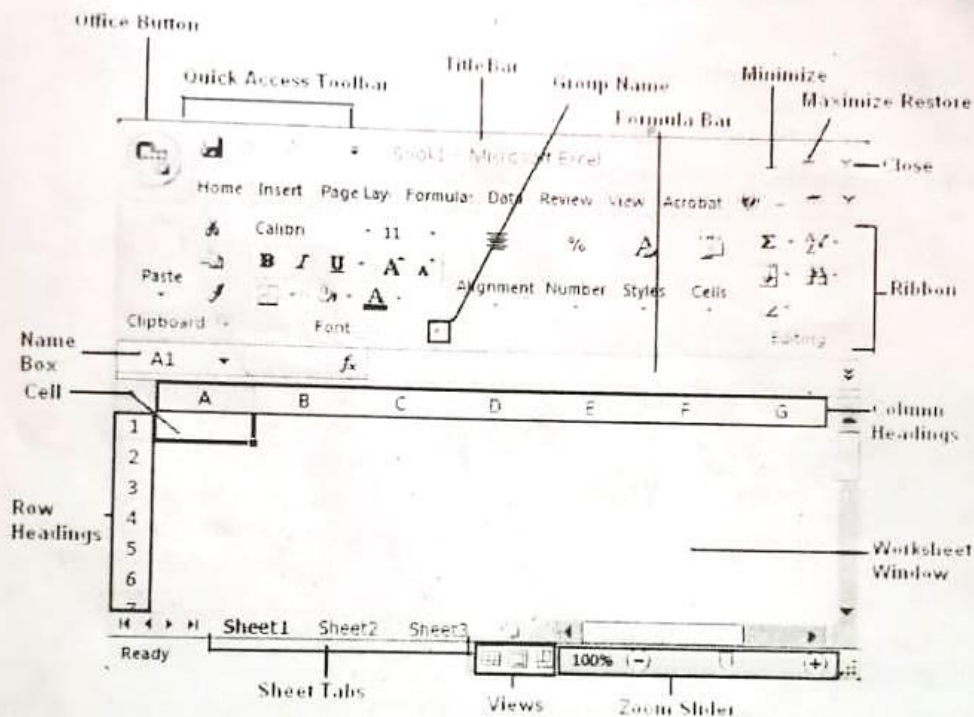


Figure 2.2: Spreadsheet software

Features of Spreadsheet Software

Some important features of spreadsheet software are as follows:

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|----------------------|--|
| Calculation | Spreadsheet software provides the facility to perform different types of calculations using formulas and functions. |
| Recalculation | Recalculation is an important and powerful feature of spreadsheet software. The results are automatically recalculated when there is any change in the worksheet data. |
| Chart | Charts are the graphical representation of data. Spreadsheet software provides different types of charts. The data in charts can be viewed and understood by the users easily. |
| AutoFill | AutoFill is used to automatically fill cell with a series of numbers and dates etc. |
| Sorting | Sorting is the process of arranging your data in a particular order. You can sort the data in your worksheets in ascending or descending order. |

- Filter** Filter allows to display the required data in a worksheet by giving a criteria. Remaining data is hidden temporarily. For example, you can display the records of passed students.
- Auditing Meaning** This feature allows the user to find the cells used in a formula. Spreadsheet software display arrows to all cells, which are used in that formula.
- Printing** Spreadsheet software provides printing facility. The user can print the documents to get a hard copy. Printing can be of whole document or of any range.
- AutoComplete** This feature is used to complete data automatically. If you are typing a word in a cell that has already been used in another cell, it can be completed automatically.

Uses of Spreadsheet Software in Commerce

The students of commerce can use Spreadsheet software in the following ways:

- Worksheet & Workbook** Different tasks in commerce are performed using worksheet and workbook. Spreadsheet software provides computerized worksheet and workbook. It provides an easy and efficient way to maintain data.
- Stock Handling** Spreadsheet software can be used to handle the stock of an organization. It provides many facilities for commerce people to perform complex calculations in stock management.
- Accounts Handling** Spreadsheet software is used to handle the accounting system of an organization. Accounting system manages daily transactions of an organization. Spreadsheet software is used to prepare balance sheet, trial balance, ledger and other information related to accounts.
- Record Keeping** Spreadsheet software can be used in commerce for record keeping. An organization can manage its data in spreadsheet software. It provides many facilities to store a large volume of data in an easy and efficient manner.
- Quick Calculations** The data stored in spreadsheet software can be processed easily. Different types of calculations can be performed on data in less time. Spreadsheet software provides many built-in functions to perform different calculations.
- Automatic Recalculation** Spreadsheet software provides the facility of automatic recalculation. If the user applies some calculation on data, it is automatically recalculated if the data is changed.
- Graphical Representation** Spreadsheet software provides the facility of presenting data graphically. It provides different types of charts. Charts display the data in an attractive and easy to understand way.
- Predefined Functions** Spreadsheet software provides many predefined functions to perform many tasks of commerce. The user has to put less effort in performing difficult tasks.

2.4.3 Presentation Software

Presentation software is a type of application software that uses graphics, animation, sound and data or information to make visual presentation. It provides many facilities to create attractive presentation quickly and easily. The presentation consists of multiple slides. The slides contain the information for the audience. This information can include text, pictures, charts, video and sound etc. These presentations can be used directly on computer screen. The presentations can also be viewed as slides on a large monitor or projection screen. The user can also print them for different uses. Popular presentation software are **Microsoft PowerPoint**, **iWork Keynote**, **LibreOffice Impress** and **Google Docs Presentations**.

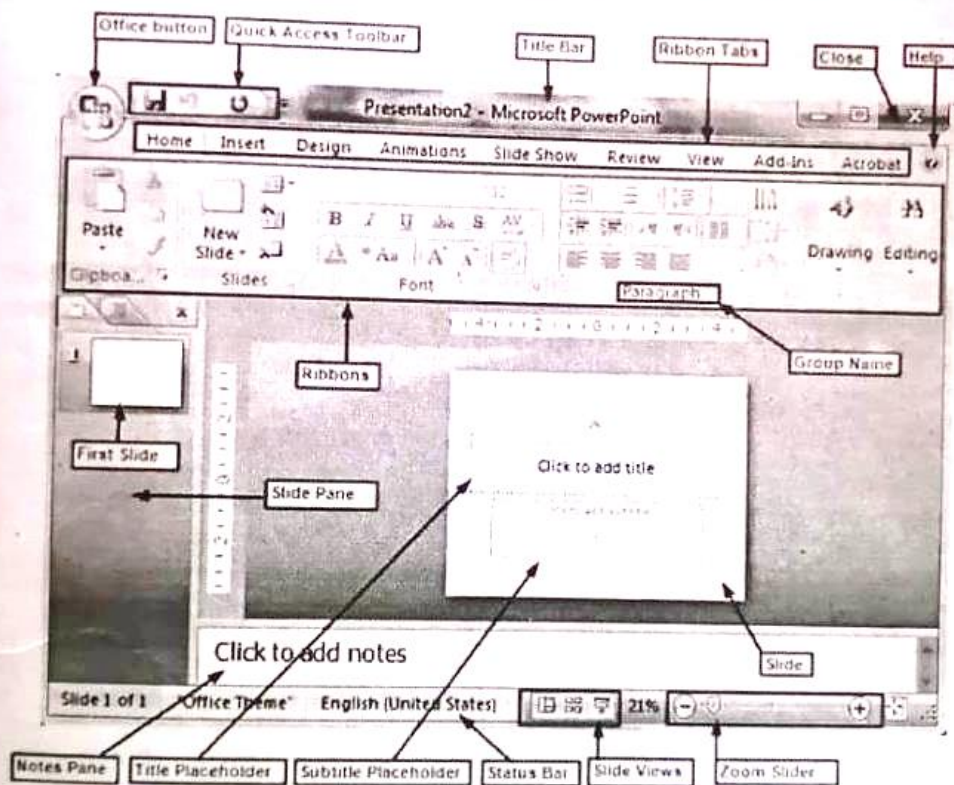


Figure 2.3: Presentation software

Uses of Presentation Software

Some important uses of presentation software are as follows:

1. Learning Solutions

Presentation software combines both audio and visual. The audience can understand the topic easily. It makes teaching process interactive in the lectures. The presentations are used in schools, colleges and universities to teach different topics of study. It makes the learning easier and interesting for the students.

2. Classroom Teaching

Presentation software help in improving the quality and impact of classroom teaching. The presentations can be made interesting and effective for the students.

3. Seminars

The students can use presentation software to make informative presentation on any topic and present them in seminars.

4. Meetings and Consultations

The decision makers can use presentation software for meetings and discussions. It helps them to keep the focus on important issues.

5. Information Kiosks

Small physical structure (C, DS)
Presentation software is a good tool to present layout and information at public places like museums, exhibitions etc. It can be interactive for public to view and learn.

6. Corporate Training Session

Presentation software is widely used by trainers for conferences, workshops and training sessions. It is an important part of every corporate training session. Top executives and manager use this powerful tool to train their juniors to give them effective training.

Features of Presentation Software

Some important features of presentation software are as follows:

Formatting	Presentation software has a wide range of formatting facilities. You can change the color, background color, size and style of your text.
Printing	Presentation software provides printing facility. The user can print slides to get a hard copy. Printing can be of whole presentation or of any range of pages.
Predefined Formats	Presentation software provides many predefined presentation formats with different background colors, text styles and graphics for the presentation.
Slide Layout	Presentation software provides different slide layouts. The user can select any layout for your presentation.
Audio and Video	Presentation software provides the facility to add sounds and videos in the presentation. It enhances the effects of the presentation.
Auto Shapes	Presentation software allows the user to draw different geometrical shapes, arrows, flowchart symbols, stars and banners on the slides.
Clipart gallery	Presentation software includes a clipart gallery that contains images, photos, video clips and audio clips for the presentations
Spelling and Grammar	Spelling and Grammar features is used to detect and correct the spelling and grammatical mistakes in the presentation.
Animation	Presentation software provides the facility to animate the contents of presentations. Different types of movements can be applied to different components of the presentation. It makes the presentation more attractive.
Slide Transition	Presentation software can be used to apply special effects to the transition between slides. Slide transitions are the visual movements as one slide changes to another. By default, one slide simply replaces previous screen.

Slide Timing

Slide timing is used to set the timing of slides. The presentation automatically displays the next slide after a preset delay. The user can rehearse the presentation to know the time required to complete the presentation.

Speaker Notes

Presentation software provides the facility to add speaker notes to a presentation. The notes can be used to remember important points during presentation or to give to the audience.

2.4.4 Database Software

A **database** is a collection of organized data. The data in a database can be accessed, retrieved and used easily. **Database software** is application software that is used to create, access and manage a database. It is also known as database management system. The user can use it to add, change and delete data in a database. It can also be used to create forms and reports using data in the database. **Microsoft Access, FileMaker Pro and LibreOffice Base, Oracle and MySQL** are examples of popular database software.

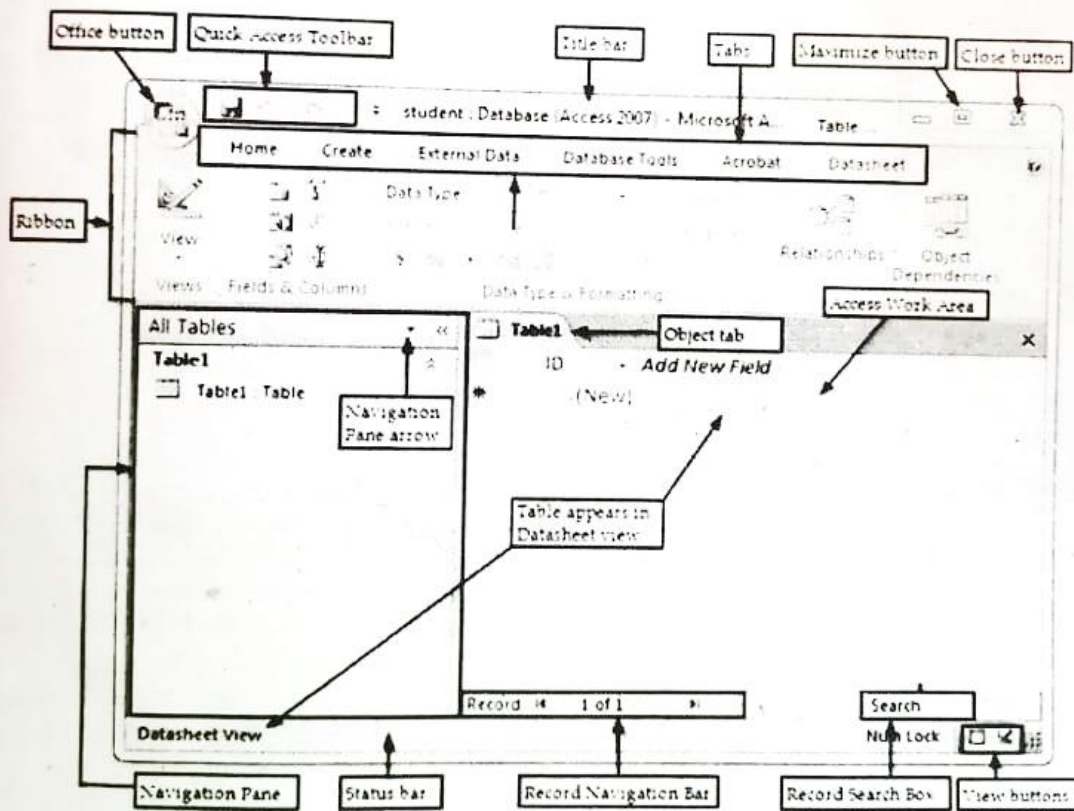


Figure 2.4: Database software

2.4.5 Project Management Software

Project management software is used for planning large projects, scheduling project tasks and tracking project costs. It can be used in large projects such as construction of huge building or running a big advertising campaign etc. It helps the project managers to run the

projects effectively. It can be used to ensure that the project is completed in time and within allowed budget. The most popular project management program is **Microsoft Project**. A commonly used web-based project management software is **Basecamp**.

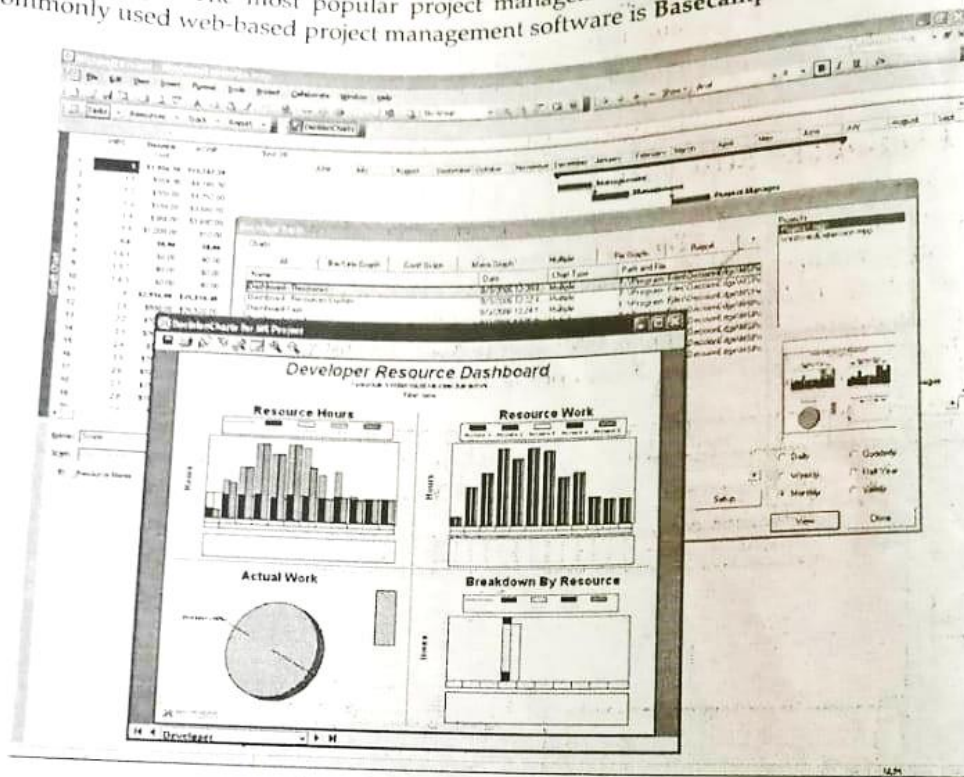


Figure 2.5: Project Management software

X 2.4.6 Note Taking Software and Web Notebooks

Note taking software is used to take notes during class lectures, meetings or similar activity. It can be used mostly by students and business people with tablet or other devices with pen input. It typically allows both typed and handwritten input. It provides different features for note taking such as creating tabs, files and Web links etc. The examples of note taking software are **Microsoft OneNote** and **Circus Ponies Notebook**.

Some online versions of note taking software are known as **Web notebooks**. They are designed to help the user to organized online research including text, images, Web links, search results etc. An example of online note taking software is **Zoho Notebook**.

< 2.4.7 Personal Information Managers

Personal information manager (PIM) is a software application installed on PDAs and smartphones. It includes an appointment calendar, address book, notepad and other features to organize appointments and tasks etc. PIMs can manage different types of information, such as telephone messages, notes, reminders, address lists and important appointments. An appointment calendar is used to schedule activities for a particular day and time. An address book can be used to enter and maintain names, addresses and phone numbers of other people. A notepad can be used to record ideas, reminders and other important information.

2.4.8 Software Suite

A set of application software available as a single package is called **software suite**. When the software suite is installed, all or selected application software in the suite are installed. Software suites typically include word processing, spreadsheet, presentation, and database applications. Suites may also include email and contact managers, calendars, project management, and drawing applications. Most widely used software suites include **Google Docs**, **iWork**, **LibreOffice**, **Microsoft Office**, **Microsoft Office 365** and **Zoho Office Suite**.

Purchasing a software suite is comparatively less expensive than purchasing each application separately. It is also easier to use because all applications in the suite usually use similar interface.



Figure 2.6: Software Suite

2.4.9 Accounting Software

Accounting software is an application software that records and processes accounting transactions. It is used by accounting professionals to manage accounts and perform accounting operations. It can also be used to record and manage expenses, invoices, payroll and inventory. It enables the user to track business finances and generate reports or graphs to make effective business decision.

Most accounting programs include templates for invoices, statements and financial reports. Latest accounting packages also provide online deposit and payroll services. This facility allows companies to deposit paychecks directly into accounts of their employees. **QuickBooks** and **Sage Peachtree** are examples of accounting software.

2.5 Graphic and Multimedia Software

Graphics software is used to create, manipulate and print graphics. It is also known as **digital imaging software**. A **graphic** can be any picture, drawing, sketch, photograph, image or icon that appears on computer screen. Some graphics software can be used only with a particular type of graphic but some allow multiple graphics formats.

a list of goods
sent
with total sum

a list of employees and
their pays

Engineers, architects and graphic artists use graphic and multimedia software to develop complex applications.

Some graphic and multimedia software applications are as follows:

2.5.1 Computer-Aided Design

Computer-aided design (CAD) software is a type of 3-D graphics software designed for architects and engineers. Engineers use CAD software to create designs for airplanes and security systems. Architects use them to design building structures and floor plans. 3-D CAD software can display an object from different angles. Some examples of CAD software are **Microsoft Video Professional**, **AutoDesk**, **AutoCAD** and **Chief Architect**.

2.5.2 Desktop Publishing Software

Desktop publishing (DTP) software provides tools to create professional and high quality documents such as textbooks and newsletters etc. It allows users to use text, graphics and colors to create attractive documents. Some popular desktop publishing software are **Adobe InDesign**, **Adobe PageMaker** and **Microsoft Publisher**.

Word processing software is also used to create documents to be published. The main difference is that word processing software is document-based but DTP software is frame based. DTP software creates a page using multiple frames. Some frames can hold text, while other frames can hold titles, graphics and tables. The user can move, resize and overlap frames to create effective layout.

2.5.3 Paint Software

Paint software is used to create and modify graphic images. It provides a set of electronic pens, brushes and paints for painting images on the screen. Many professionals like graphics artists use it to draw pictures, shapes and graphical images with different tools. Paint software is also called **illustrator software** or **raster graphics editor**. **MS Paint** is simple and popular paint software included in **Windows**.

2.5.4 Photo Editing Software

Photo editing software is used to modify the existing image. It provides features to improve the quality of photos by modifying contrast and brightness or cropping unwanted objects and adding special effects such as shadows and glows etc. **Adobe Photoshop**, **Apple iPhoto** and **Microsoft Office Picture Manager** are examples of photo editing software.

2.5.5 Drawing Software

Drawing software provides a set of lines, shapes and colors to create diagrams and logos etc. Some examples of drawing software are **CorelDraw**, **Adobe Illustrator** and **Autodesk SketchBook**.

2.5.6 Video and Audio Editing Software

Video editing software is used to modify video clips. For example, it can be used to change the length of video clip or add special effects. **Audio editing software** is used to modify audio clips. It can produce quality audio tracks. It includes the filters to enhance audio quality. The filter removes distracting background noise and improves the quality of the audio. Video and audio editing software is commonly used by video production studios to edit and improve videos. Some examples of video and audio editing software are **PremierePro**, **Audition** and **Soundbooth**.

The common tasks provided by video and audio editing software are as follows:

- Split video into smaller clips
- Add still photos
- Add transitions between clips
- Add soundtracks
- Add titles and captions
- Add special effects

2.5.7 Multimedia Authoring Software

Multimedia authoring software is also called **authorware**. It is used to combine text, graphics, audio, video and animation into an interactive presentation. The presentation created with authorware can be used on the Web or computer. It can be used to teach the students. Some examples of multimedia authoring software are **GoCourse** and **Director**.

2.5.8 Webpage Authoring Software

Webpage authoring software is used to create professional web pages. The webpages may include text, images, video, audio, animation etc. Some application software such as MS Word and MS PowerPoint also provide the facility to save a document as webpage. Some examples of webpage authoring software are **DreamWeaver**, **FireWorks** and **Flash**.