Chapter 15

Application Software Packages

Computer Fundamentals - Pradeep K. Sinha & Priti Sinha

Learning Objectives

In this chapter you will learn about :

§ Word-processing package

§ Spreadsheet package

§ Graphics package

§ Personal assistance package

Word-Processing Package

§ **Word-processing** describes use of hardware and software to create, edit, view, format, store, retrieve, and print documents (written material such as letters, reports, books, etc.)

§ **Word-processing package** enables us to do all these on a computer system

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Commonly Supported Features in a Word-Processing Package

§ Entering text

§ Editing text

§ Formatting page style

§ Formatting text

§ Entering mathematical symbols

§ Displaying documents

§ Saving, retrieving and deleting documents

§ Printing documents

§ Importing text, graphics and images

§ Searching and replacing text string

§ Checking spelling

§ Checking grammar and style

Word-Processing (Few Terminologies)

§ **Style sheet:** Pre-stored page format that can be used while creating a new document or can be applied to an existing document

§ **Font:** Complete set of characters with the same style and size. A word-processing package comes with several standard fonts

§ **Points:** A point is 1/72 of an inch, and the size refers to the distance from the top of the tallest character to the bottom of the character that extends the lowest. Font size is measured in points

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Word-Processing (Few Terminologies)

§ Three commonly used font styles are *italic*, **bold** and underline.

§ **Justification:** Alignment of text on the left or the right margin, or on both margins. Four types of justification are:

§ Left-justification

§ Right-justification

§ Center-justification

§ Full-justification

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Different Font Types

This sentence is written in Times New Roman font.

This sentence is written in Helvetica font.

This sentence is written in Palatino font.

This sentence is written in Courier New font.

This sentence is written in Antique Olive font.

Different Font Sizes

This sentence is written in 10 point Times New Roman font.

This sentence is written in 12 point Times New Roman font.

This sentence is written in 16 point Times New Roman font.

This sentence is written in 24 point Times New Roman font.

This sentence is written in 36 point Times New Roman font.

Different Font Styles

This sentence is written in italic style.

This sentence is written in bold style.

This sentence is written in underline style.

You can even make individual words *italic*, **bold**, or underline.

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Different Justification Styles

The term *hardware* refers to the physical devices of a computer system. Thus, the input, storage, processing, control, and output devices are hardware.

(a) Left Justified text

The term *hardware* refers to the physical devices of a computer system. Thus, the input, storage, processing, control, and output devices are hardware.

(b) Right Justified text

The term *hardware* refers to the physical devices of a computer system. Thus, the input, storage, processing, control, and output devices are hardware.

(c) Centered text

Mathematical Symbols

$$\left\{ t^{(2)} \middle| R(t) \wedge \left[\exists u^{(w)} \right] \left(S(u) \wedge \neg u[1] = u[2] \right) \right\}$$

$$\left\{ <a,b,c> \middle| \exists <a,b> \left(<a,b> \in r \wedge <a,c> \in s \right) \right\}$$

Spreadsheet Package

§ **Spreadsheet package** is a numeric data analysis tool that allows us to create a computerized ledger

§ Useful for any numerical analysis problem whose data can be organized as rows and columns

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Uses of Spreadsheet Package

§ Maintaining and analyzing inventory, payroll, and other accounting records by accountants

§ Preparing budgets and bid comparisons by business analysts

§ Recording grades of students and carrying out various types of analysis of the grades by educators

§ Analyzing experimental results by scientists and researchers

§ Tracking stocks and keeping records of investor accounts by stockbrokers

§ Creating and tracking personal budgets, loan payments, etc. by individuals

Common Features of Spreadsheet Package

§ Support for a large number of cells

§ Support for addressing a range of cells by the addresses of the endpoint cells

§ Support for different types of cell data (such as label, numeric value, formula, and date & time)

§ Support for use of relative and absolute cell addresses in formula

§ Support for a wide range of commands

§ Support for displaying numeric data in the form of graphs and charts

Sample Spreadsheet

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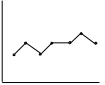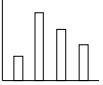
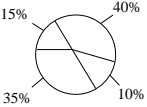## Examples of a Line Graph, a Bar Chart and a Pie Chart

(a) A line graph   (b) A bar chart   (c) A pie chart

Graphics Package

Graphics package enables us to use a computer system for creating, editing, viewing, storing, retrieving and printing designs, drawings, pictures, graphs and anything else that can be drawn in the traditional manner

Common Features of Graphics Package

§ Drawing designs

§ Painting drawings and pictures

§ Presenting graphs and charts

§ Dragging-and-dropping graphic objects

§ Importing graphic objects

§ Capturing screen snapshots

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Computer Graphics (Few Terminologies)

§ **Computer-aided-design (CAD):** Integration of computers and graphics design packages for the purpose of automating the design and drafting process

§ **Vector graphics:** Graphic object composed of patterns of lines, points, circles, arcs and other geometric shapes that can be easily represented by few geometric parameters

§ **Raster graphics:** Graphic object composed of patterns of dots called **pixels**

Personal-assistance Package

Personal-assistance package allows individuals to:

§ Use personal computers for storing and retrieving their personal information

§ Planning and managing their schedules, contacts, finances and inventory of important items

Common Features of Personal Assistance Package

§ Calendar

§ To-do list

§ Address book

§ Investments book

§ Inventory bookf

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Key Words/Phrases

- § Bit-mapped image
- § Bold
- § Cell
- § Center justification
- § Clip art library
- § Computer Aided Design (CAD)
- § Font
- § Full justification
- § Graphics package
- § Italic
- § Justification
- § Landscape mode
- § Left justification
- § Personal assistance package
- § Portrait mode
- § Raster graphics
- § Right justification
- § Spreadsheet package

- § Style sheet
- § Underline
- § Vector graphics
- § What You See Is What you Get (WYSIWYG)
- § Word-processing
- § Word-processing package

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