Unit 1:- Introduction to PC Application Package

❖ Computer

A computer is a programmable machine. The two principal characteristics of a computer are: It responds to a specific set of instructions in a well-defined manner and it can execute a prerecorded list of instructions (a program).

Computer is an electronic device that is designed to work with Information. Computers are used in many fields like banking, medicine, finance and education with increased preference. With the growth of artificial intelligence, computers will soon blur lines between man and machine.

A computer is a machine or device that performs processes, calculations and operations based on instructions provided by a software or hardware program. It has the ability to accept data (input), process it, and then produce outputs.

Computers can also store data for later uses in appropriate storage devices, and retrieve whenever it is necessary.

Modern computers are electronic devices used for a variety of purposes ranging from browsing the web, writing documents, editing videos, creating applications, playing video games, etc.

- The term Application refers to Software which is a set of instructions or code written in a program for executing a task or an operation in a Computer. Software is a set of programs, which is designed to perform a well-defined function. A program is a sequence of instructions written to solve a particular problem.
- **Computer Applications is an essential skill in academic and occupational areas. This course provides an introduction to and/or refinement of touch skills for entering alphabetic, numeric, and symbol information. IPCA is a required foundation course for all Business occupational/technical programs requiring the use of the computer. As a basic communications course, students learn to key the touch system and format documents with Word. Students apply their keyboarding skills to the production of letters, memos, tables, and reports.**
- There are two types of software −
- System Software
- Application Software
- System Software
- The system software is a collection of programs designed to operate, control, and extend the processing capabilities of the computer itself. System software is generally prepared by the computer manufacturers. These software products comprise of programs written in low-level languages, which interact with the hardware at a very basic level. System software serves as the interface between the hardware and the end users.

- Some examples of system software are Operating System, Compilers, Interpreter, Assemblers, etc.
- features of a system software −
- Close to the system
- Fast in speed
- Difficult to design
- Difficult to understand
- Less interactive
- Smaller in size
- Difficult to manipulate
- Generally written in low-level language
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- Definition Of Application Packages Application packages can be defined as the ready made software or program designed in a standardized form for solving various problems that are common to users. They are written by users themselves or acquired from manufacturers as packages come in various format on compact disc (CD/DVD) or available on developer or manufacturers server on the internet that can be downloaded for usage at a cost or no cost.
-         Application software products are designed to satisfy a particular need of a particular environment. All software applications prepared in the computer lab can come under the category of Application software.
- Application software may consist of a single program, such as Microsoft's notepad for writing and editing a simple text. It may also consist of a collection of programs, often called a software package, which work together to accomplish a task, such as a spreadsheet package.
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- Types of Application Packages/Software/Program 1. Word processing packages e.g. MS WORD 2. Spreadsheet packages e.g. MS EXCEL 3. Database Management System e.g. MS ACCESS 4. Graphics packages e.g. COREL DRAWS 5. Presentation packages e.g. MS POWERPOINT 6. Anti-virus packages e.g. NORTON,AVAST
- Examples of Application software are the following −
- Payroll Software
- Student Record Software
- Inventory Management Software
- Income Tax Software
- Railways Reservation Software
- Microsoft Office Suite Software
- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Features of application software are as follows −
- Close to the user
- Easy to design
- More interactive
- Slow in speed

- Generally written in high-level language
- Easy to understand
- Easy to manipulate and use
- Bigger in size and requires large storage space
- Word Processing Packages:-
- Word processing is simply the use of computer to type text, letters and various documents. It is text processing software that helps in various manipulations of texts in order to produce the desire documents. The software designed for word processing is called WORD PROCESSOR.
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- Examples of Word Processing Packages ·
- Microsoft word ·
- Word perfect ·
- Word star ·
- MultiMate
- Some Features of Word Processing Packages
- Copy,paste,underline,centre
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- spreadsheet Package:-
- A spreadsheet is a program or software that is made up of imaginary paper that contains information in rows and columns meant for numerical, statistical and accounting calculations. The horizontal part of the spreadsheet is called ROW and the vertical part is called COLUMN. The intersection of the row and the column is known as CELL.
- Examples of Spreadsheet Packages
- Microsoft Excel · Lotus 123 · Super cal · Quattro pro
- Some Basic Features of Spreadsheet ·
- Copy   Save · Sort   Add sum · Formula bar   Edit
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- Uses of Spreadsheet Package ·
- Payroll report · Sales analysis · Inventory · Tax estimation · General ledger · Statistical projection
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- Advantages of Application Packages
- Acquisition of an application package is a better alternative sometimes to the development of an individual. 2. Provides savings in programming cost 3. Provide savings in system development cost and time 4. It is transferable from one PC to another with ease 5. Easy to install with instructional manual that comes with it 6. Cheap to acquire
- Disadvantages of Application Packages 1. Maintenance may be expensive for organisational use. 2. It is very porous in terms of security. 3. Over dependence of its usage produces inefficient programmers. 4. May not be compatible with some computers.
- C haracteristics of an Application Package 1. Stability: Package must stay for a certain period of time before it is placed out. 2. Accuracy: Package must produce accurate result. 3. Reliable: User must be confident in the result the package produced. 4. Speed: Faster execution which means the package must produce information on a very high speed. 5. Portability: Package must be easy to be transfer from one computer system to another. 6. Storage capacity: Package must not occupy too much memory space on the computer.

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- DBMS Package:-
- Stands for "Database Management System." In short, a DBMS is a database program. Technically speaking, it is a software system that uses a standard method of cataloging, retrieving, and running queries on data. The DBMS manages incoming data, organizes it, and provides ways for the data to be modified or extracted by users or other programs.
- Some DBMS examples include MySQL, PostgreSQL, Microsoft Access, SQL Server, FileMaker, Oracle, RDBMS, dBASE, Clipper, and FoxPro. Since there are so many database management systems available, it is important for there to be a way for them to communicate with each other. For this reason, most database software comes with an Open Database Connectivity (ODBC) driver that allows the database to integrate with other databases. For example, common SQL statements such as SELECT and INSERT are translated from a program's proprietary syntax into a syntax other databases can understand.
- There are different fields where a database management system is utilized. Following are a few applications which utilize the information base administration framework –
- Railway Reservation System –
  In the rail route reservation framework, the information base is needed to store the record or information of ticket appointments, status about train's appearance, and flight. Additionally, if trains get late, individuals become acquainted with it through the information base update.

- Library Management System –
  There are loads of books in the library so; it is difficult to store the record of the relative multitude of books in a register or duplicate. Along these lines, the data set administration framework (DBMS) is utilized to keep up all the data identified with the name of the book, issue date, accessibility of the book, and its writer.

- Banking –
  Database the executive's framework is utilized to store the exchange data of the client in the information base.

- Education Sector –
  Presently, assessments are led online by numerous schools and colleges. They deal with all assessment information through the data set administration framework (DBMS). In spite of that understudy's enlistments subtleties, grades, courses, expense, participation, results, and so forth all the data is put away in the information base.

- Credit card exchanges –
  The database Management framework is utilized for buying on charge cards and age of month to month proclamations.

- Social Media Sites –
  We all utilization of online media sites to associate with companions and to impart our perspectives to the world. Every day, many people group pursue these online media accounts like Pinterest, Facebook, Twitter, and Google in addition to. By the utilization of the data set administration framework, all the data of clients are put away in the information base and, we become ready to interface with others.

- Broadcast communications –
  Without DBMS any media transmission organization can't think. The Database the executive's

framework is fundamental for these organizations to store the call subtleties and month to month postpaid bills in the information base.

- Account –
  The information base administration framework is utilized for putting away data about deals, holding and acquisition of monetary instruments, for example, stocks and bonds in a data set.

- Online Shopping –
  These days, web-based shopping has become a major pattern. Nobody needs to visit the shop and burn through their time. Everybody needs to shop through web based shopping sites, (for example, Amazon, Flipkart, Snapdeal) from home. So all the items are sold and added uniquely with the assistance of the information base administration framework (DBMS). Receipt charges, installments, buy data these are finished with the assistance of DBMS.

- Human Resource Management –
  Big firms or organizations have numerous specialists or representatives working under them. They store data about worker's compensation, assessment, and work with the assistance of an information base administration framework (DBMS).

- Manufacturing –
  Manufacturing organizations make various kinds of items and deal them consistently. To keep the data about their items like bills, acquisition of the item, amount, inventory network the executives, information base administration framework (DBMS) is utilized.

- Airline Reservation System –
  This framework is equivalent to the railroad reservation framework. This framework additionally utilizes an information base administration framework to store the records of flight takeoff, appearance, and defer status.

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- What Are the Advantages of Database Management System?
- A Database Management System (DBMS) is characterized as the software framework that permits users to indicate, create, maintain and control access to the data set. The DBMS allows an end-user to create, read, update and erase required data in the dataset. DBMS works like a layer between the programs and data.
- The Application of Database management systems are everywhere including major industries like Banking & Financial Sector, Government Organisations, Hospitality, Healthcare and Life Sciences, Education, Media & Entertainment, and Telecom & IT. The major market players responsible for dbms are HP, Oracle, IBM and MongoDB.
- Database management systems are majorly divided into two categories:
- Relational Database Management Systems (RDBMS)
- Non-relational Database Management Systems (NRDBMS)
- In this article we will discuss about the benefits of database management systems as a whole.
- Advantages of Database Management System
- In contrast with the File Based Data Management System, Dbms has numerous benefits. We are putting light on some of the considerable benefits here–
- 1. Data Integrity

- Data integrity means data is consistent and accurate in the database. It is essential as there are multiple databases in DBMS. All these databases contain data which is visible to multiple users. Therefore, it is essential to ensure that data is consistent and correct in all databases for all users.
- 2. Data Security
- Data security is a vital concept in a database. Only users authorized must be allowed to access the database and their identity must be authenticated using username and password. Unauthorized users shouldn't be allowed to access the database under any circumstances as it violets the integrity constraints.
- A DBMS provides a better platform for data privacy thus helping companies to offer an improved data security.
- 3. Better data integration
- Due to the database management system, we have access to well managed and synchronized form of data making it easy to handle. It also gives an integrated view of how a particular organization is working and keeps track of how one segment of the company affects another segment.
- 4. Minimized Data Inconsistency
- Data inconsistency occurs between files when various versions of the same data appear in different places. Data consistency is ensured in the database; there is no data redundancy. Besides, any database changes are immediately reflected by all users, and there is no data inconsistency.
- 5. Faster Data Access
- The database management system helps the users to produce quick answers to queries making data accessing accurate and faster.
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- What is a Database?
- A database is a collection of related data which represents some aspect of the real world. A database system is designed to be built and populated with data for a certain task.
- What is DBMS?
- **Database Management System (DBMS)** is a software for storing and retrieving users' data while considering appropriate security measures. It consists of a group of programs which manipulate the database. The DBMS accepts the request for data from an application and instructs the operating system to provide the specific data. In large systems, a DBMS helps users and other third-party software to store and retrieve data.
- DBMS allows users to create their own databases as per their requirement. The term "DBMS" includes the user of the database and other application programs. It provides an interface between the data and the software application.
- Presentation Packages
- Definition
- A presentation program is a software package used to display information in the form of a slide show. It has three major functions: an editor that allows text to be inserted and formatted, a method for inserting and manipulating graphic images, and a slide-show system to display the content.
- Examples oSlideWiki, Audience (software), Ease, Emaze etc.
- Features of presentation package

- · Creation of Slides: A slide is a single screen of a presentation, and every presentation is composed of several slides. Slides contain any mixture of text, images, video, animations, links and sound
- · Animation: Animation effects allow the various elements on each slide to appear after a certain amount of time or when a presenter presses a button.
- · Transitions: This is how the presentation software "moves" the display of one slide to another. Transitions usually include dissolving from one slide to the next or the current slide being moved in some way to show the next slide as though it was underneath.
- · Etc
- Steps Involved in activating MS PowerPoint
- There are many ways of loading Microsoft word:
- a. If the icon of the package is on desktop, double click on it for it to open
- b. If the icon is not on the desktop, follow the step below:
- i. Click the Start Button
- ii. Click on all program
- iii. Select and click Microsoft office
- iv. Select and click Microsoft PowerPoint
- PowerPoint Operations
- The following operations can be performed on MS PowerPoint.
- i. Create new presentation
- ii. insert text, pictures and graphs
- iii. Animate contents
- iv. Add new slide
- v. Save presentation
- vi. Run slide show
- vii. Print presentation
- viii. Close presentation
- Guidelines for Creating a Good MS PowerPoint Presentation
- a. Font size should be such that the text is readable from the back of the room/by all viewers
- b. Message/Points should be brief/concise and precise! straight to the point
- c. Maintain consistent use of colour on all Slides
- d. Avoid too many texts on a slide, contrast text colour and backgrounds
- e. Transitions and animations sound should be used sparingly and consistently to avoid distractions
- f. Add images to compliment messages and not to decorate slides
- g. Use font size and type consistently on all slides
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  Benefits of Presentation Package
- i. Easy to create colourful and attractive design/presentation
  ii. Easy to convey messages to the audience
  iii. Easy to present and maintain eye contact with large audience
  iv. Enhances the assimilation of information
  v. It makes the presentation interesting

- vi. It supports multimedia
- vii. To add) create slides effects
- viii. Useful for developing speaker interaction
- ix. It supports Object Linking and Embedding (OLE)
- x. It engages multiple learning styles
- xi. It improves audience focus
- xii. It supports easy way to organize ideas and information
- xiii. Presentation in the absence of the speaker.

- A Presentation package is a software program that contains a text editor and the ability to add charts and graphic images, such as photographs, clip art, or other objects to make a slide show to communicate visually to an audience.

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- These are software package suites that contain program designed to accompany the speaker when he makes a presentation. It is always in form of a slide show.

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- CAD/CAM Application Package:-

- Computer-aided design (CAD) involves creating computer models defined by geometrical parameters. These models typically appear on a computer monitor as a three-dimensional representation of a part or a system of parts, which can be readily altered by changing relevant parameters. CAD systems enable designers to view objects under a wide variety of representations and to test these objects by simulating real-world conditions.

- Computer-aided manufacturing (CAM) uses geometrical design data to control automated machinery. CAM systems are associated with computer numerical control (CNC) or direct numerical control (DNC) systems. These systems differ from older forms of numerical control (NC) in that geometrical data are encoded mechanically. Since both CAD and CAM use computer-based methods for encoding geometrical data, it is possible for the processes of design and manufacture to be highly integrated. Computer-aided design and manufacturing systems are commonly referred to as CAD/CAM.

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- CAD

- Computer-aided design, abbreviated as CAD, is the two-dimensional or three-dimensional modeling of physical structures and material properties, using specialized software on a computer. CAD software is used by engineers, artists, and enthusiasts to create architectural designs, ray traced images, animations, and physics simulations. Pictured at right is an example of an image created with CAD software.

- Examples of CAD software

- AutoCAD, 3ds Max, and Maya — commercial CAD software titles published by Autodesk.

- Blender — an open-source CAD, animation, and image processing application with an active community of users.

- SketchUp — a proprietary CAD application that runs in a web browser, formerly developed by Google.

- Accounting Application Package:-

- Accounting software is a fundamental application that allows an organization to record the flow of money for internal and external review and auditing. It is the primary tool for assessing the financial health of an organization and for meeting legal compliance through tools like general ledgers, account payables and receivables, purchase orders, stock management, and billing.

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- Accounting software is a computer program that assists bookkeepers and accountants in recording and reporting a firm's financial transactions. The functionality of accounting software differs from product to product. Larger firms may choose to implement a customized solution that integrates a vast amount of data from many different departments. Small firms often choose an off-the-shelf product.

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- Accounting software is a computer program that assists accountants in recording and reporting a firm's financial transactions.

- Different firms have different accounting software needs. Some may only need generic, off the shelf accounting software, while others will need customized, complex accounting software.

- Accounting software makes accounting calculations easier to perform, understand, and analyze.

- Less office space is required with accounting software, as it makes the use of physical data obsolete, which saves costs in regards to rent.

- Accounting software makes retrieving old accounting data easier, which is helpful for internal and external audits.

- Companies that offer accounting software include Intuit, Microsoft, SAP, and Oracle.

- What is accounting software?

- Accounting software is a tool to help you record the flow of your company's money and examine your financial condition. With it, you can record transactions, generate reports, manage customer and vendor contacts, create purchase orders, track stock levels, bill customers, and monitor account balances.

- "Using an accounting package will help organize your records and 'force' you into a systematic structure," Ken Stalcup, senior director with Houlihan Valuation Advisors, told business.com. "That will put the company's finances into a system that can report the financial results and help when it comes to tax time."

- Why use accounting software?

- Using accounting software can save your company time and prevent errors.

- "The main benefit of using modern accounting software is efficiency," said Fabien Dawidowicz, CFO of Spendesk. "Instead of copying and pasting data from spreadsheet to spreadsheet, you have all your transaction information in one place. You can easily see what's been spent or what's come into the business, and you always know where to find this information."

- Rather than manually inputting data and transactions, you can use the bank feed feature to connect the software to your business bank and credit card accounts. With this in place, you have a daily update of your transactions. Most accounting applications have a dashboard that gives you a real-time look at your most important metrics.

- The software can create a variety of reports and financial statements, including profit and loss statements and balance sheets, which are necessary for requesting funding from an investor. You can also compare transaction activity or statements from prior months and years to your current ones, which can help you analyze your business's growth, sales trends, and other key metrics that you need to make informed business decisions as you prepare for the future.

- You can use the accounting software to categorize expenses and schedule and pay bills, whether you pay online, by check, by credit card or with cash. This will help you keep track of those transactions and manage your cash flow.

- You can also use the software to record the payments you receive in cash or by check, and create and send invoices and past-due notifications.

- Accounting software automates many tedious and repetitive accounting tasks, which increases the accuracy of your data and keeps your bookkeeping efficient. If you use cloud accounting software, you can do your accounting anywhere there's a signal.

- What are the benefits of accounting software?

- Accounting software isn't just a necessary evil. It provides a lot of features that can help run your business more smoothly. From automating invoices to keeping on top of cash flow, here's a look at the main ways your business can benefit from accounting software.

- **Maintain control of your finances:** Managing your personal finances on the fly is one thing, but you need something more formal when running a business. Pen and paper and spreadsheets may be ok, but it won't give you the insight accounting software can. Accounting software organizes and stores your financial data in one location. It enables you to get a full view of your business's financial performance in real-time.

- **Automate invoices:** To keep cash flowing and your business growing, you must bill clients on time. The longer you wait, the harder it may be to collect. Many of the best accounting software programs let you automate invoicing. You can create recurring invoices, send follow-up reminders, and accept digital payments directly from the invoices. You can also track your unpaid invoices and offer discounts for early payments.

- **Track expenses:** Cash is king for small businesses. A common accounting mistake is failing to track business costs accurately, and the last thing you want is to face a cash flow shortage because expenses are out of whack. Accounting software can help you prevent that scenario by automating expense tracking. With the software, you can scan and record receipts, as well as track mileage and expenses incurred on behalf of clients.

- **Reconcile bank statements:** A core feature of accounting software is the ability to connect with your bank accounts. With it, you can access your bank statements directly from your accounting software. You can also match and reconcile bank transactions automatically.

- **Keeps you in good standing with the IRS:** Filing taxes is complicated enough, but for small businesses it can be even more difficult to maintain compliance. Accounting software makes it easier. Many of the best accounting software programs automatically calculate sales tax and prepare tax forms for you.

- **Reporting and analysis:** As you run your business, your accounting software collects a lot of data through integrations with your POS, CRM and other business applications. That gives you deep insight into your business. Most accounting software offers reporting functions, enabling you to easily analyze data and track performance.

- **Manage inventory:** Whether you run a retail store or operate only online, you need to keep tabs on your inventory. You don't want to run out of a hot selling product or purchase one that's languished on the shelves. Accounting software can help with that, even automating the ordering process. With accounting software, you can track products sold, set reordering thresholds, and run reports on which items are doing well and which aren't.

- **Easy collaboration with your accountant:** When you use accounting software, your financials are organized in one central location. Receipts are scanned in, tax forms filed and inventory tracked. That makes it much easier for your accountant to do their job. Many accounting software

programs will let your accountant have access to the program for free. It also frees up the time it would take to gather the documents and information your accountant needs.

- **Around-the-clock access**: Most accounting software lives in the cloud, which means it can be accessed from anywhere you have an internet connection. That means you can check up on sales, accept payments and run reports whenever and wherever you are.
- wHAT ARE THE BEST ACCOUNTING SOFTWARE IN INDIA?
- Tally.ERP 9
- QuickBooks India
- Zoho Books
- MargERP 9+
- Vyapar
- myBooks
- Busy Accounting
- Logic
- Giddh
- ProfitBooks
- Saral
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