

APPLIED COMPUTER SCIENCE I (ICT 2) week1

SEMESTER: 3 ALL SPECIALTIES

LEVEL: 300

PLAN OF THE DAY

A. OTHER TYPES OF DATABASE.

OTHER TYPES OF DATABASES

✓ Operational Database

An operational database is used to store and manage data that is needed to support the day-to-day operations of an organization. Operational databases are typically designed to handle a high volume of transactions and are used to store data that is needed in real-time, such as customer orders, inventory levels, and financial transactions. They are often used in applications that require fast access to data and the ability to update the data in real-time.

OTHER TYPES OF DATABASES

✓ Enterprise Database

An enterprise database is used by a large organization to store and manage data that is needed to support the organization's operations and business processes. Enterprise databases are designed to handle a high volume of transactions and to support a large number of users.

OTHER TYPES OF DATABASES

✓ Commercial Database

A commercial database is developed and sold by a company for use by customers. They are typically more feature-rich and robust than free or open-source databases, and they may be used in a wide range of applications, including business, government, and education. Often provided as a service, the database is hosted and managed by the company and accessed by customers over the internet.

Database Components

There are several components that are typically included in a database management system (DBMS):

- ✓ **Data:** The data stored in the database, which may include structured, semi-structured, or unstructured data.

Database Components

- ✓ **Schema:** The structure and organization of the data in the database, including the tables, columns, data types, and relationships between the data.
- ✓ **Query language:** A language or interface that is used to retrieve and manipulate data in the database. SQL (Structured Query Language) is the most commonly used query language for relational databases.

Database Components

- ✓ **Users:** The individuals or application programs that access and manipulate the data in the database.
- ✓ **Backup and recovery:** Tools and procedures for protecting the data in the event of a failure or disaster.

Database Management system(DBMS)

DBMS is a collection of programs that enable the user to create and maintain a database.

Examples of DBMS are: MS Access, MySQL, Oracle etc.

Application of DBMS

DBMS is used in a wide variety of sectors. Some of them are:

- ✓ **Telecom:** A database is needed to keep track of the information regarding calls made, network usage, customer details etc. without the database systems it is hard to maintain that huge amount of data that keeps updating every millisecond.

Application of DBMS

- ✓ **Industry:** Whether it is a manufacturing unit, warehouse or distribution centre, each one needs a database to keep the records ins and outs. For example distribution centre should keep the track of the product units that is supplied into the centre as well as the products that got delivered out from the distribution centre on each day, this is where DBMS comes into the picture.

Application of DBMS

- ✓ **Banking system:** database is used for storing customers information, tracking day to day credit and debit transactions, generating bank statements etc. All this work has been done with the help of database management systems.
- ✓ **Sales:** It is used to store customers information and invoice details.

Application of DBMS

- ✓ **Airlines:** To travel through airlines, we need to make early reservations, this reservation information along with flight scheduled is stored in a database.
- ✓ **Sales:** It is used to store customers information and invoice details.