**Module-3**

1. **What is RDBMS?**

RDBMS stands for Relational Database Management System.

RDBMS is a program used to maintain a relational database.

RDBMS is the basis for all modern database systems such as

MySQL, Microsoft SQL Server, Oracle, and Microsoft Access.

RDBMS uses SQL queries to access the data in the database.

1. **What is SQL?**

SQL is the standard language for dealing with Relational Databases. SQL is used to insert, search, update, and delete database records.

1. **Write SQL Commands**

SELECT - extracts data from a database

UPDATE - updates data in a database

DELETE - deletes data from a database

INSERT INTO - inserts new data into a database

CREATE DATABASE - creates a new database

ALTER DATABASE - modifies a database

CREATE TABLE - creates a new table

ALTER TABLE - modifies a table

DROP TABLE - deletes a table

CREATE INDEX - creates an index (search key)

DROP INDEX - deletes an index

1. **What is join?**

A JOIN clause is used to combine rows from two or more tables, based on a related column between them.

1. **Write type of joins.**

INNER JOIN: Returns records that have matching values in both tables

LEFT JOIN: Returns all records from the left table, and the matched records from the right table

RIGHT JOIN: Returns all records from the right table, and the matched records from the left table

CROSS JOIN: Returns all records from both tables

1. **How Many constraint and describes it self**

**NOT NULL constraints :-** NOT NULL constraints prevent null values from being entered into a column.

**Unique (or unique key) constraints;-** *Unique constraints* ensure that the values in a set of columns are unique and not null for all rows in the table. The columns specified in a unique constraint must be defined as NOT NULL. The database manager uses a unique index to enforce the uniqueness of the key during changes to the columns of the unique constraint.

**Primary key constraints:-** You can use primary key and foreign key constraints to define relationships between tables**.**

**Foreign key (or referential integrity) constraints:-** *Foreign key constraints* (also known as *referential constraints* or *referential integrity constraints*) enable definition of required relationships between and within tables.

**(Table) Check constraints:-** A *check constraint* (also referred to as a *table check constraint*) is a database rule that specifies the values allowed in one or more columns of every row of a table. Specifying check constraints is done through a restricted form of a search condition.

**Informational constraints:-** An *informational constraint* is a constraint attribute that can be used by the SQL compiler to improve the access to data. Informational constraints are not enforced by the database manager, and are not used for additional verification of data; rather, they are used to improve query performance

1. **Difference between RDBMS vs DBMS**

| DBMS | RDBMS |
| --- | --- |
| DBMS stores data as a file. | RDBMS stores data in tabular form. |
| Data elements need to be accessed individually. | Multiple data elements can be accessed at the same time. |
| No relationship between data. | Data is stored in the form of tables which are related to each other. |
| Normalization is not present. | Normalization is present. |
| DBMS does not support distributed databases. | RDBMS supports distributed databases. |
| It stores data in either a navigational or hierarchical form. | It uses a tabular structure where the headers are the column names, and the rows contain corresponding values. |
| It deals with a small quantity of data. | It deals with large amounts of data. |
| Data redundancy is common in this model. | Keys and indexes do not allow Data redundancy. |
| It is used for small organizations and deals with small data. | It is used to handle large amounts of data. |
| Security is less | More security measures provided. |
| It supports single users. | It supports multiple users. |
| Data fetching is slower for the large amount of data. | Data fetching is fast because of the relational approach. |
| Examples: Window Registry, Forxpro, dbaseIIIplus etc. | Examples: MYSQL,PostgreSQL, SQL Server, Oracle, Microsoft Access etc. |

1. **What is API Testing?**

Application Programming Interface (API) is a software interface that allows two applications to interact with each other without any user intervention. Another definition , API (Application Programming Interface) is a computing interface which enables communication and data exchange between two separate software systems.

1. **Types of API Testing?**

There are mainly 3 types of API Testing

**Open APIs:** These types of APIs are publicly available to use like OAuth APIs from Google. It has also not given any restriction to use them. So, they are also known as Public APIs.

**Partner APIs:** Specific rights or licenses to access this type of API because they are not available to the public.

**Internal APIs:** Internal or private. These APIs are developed by companies to use in their internal systems. It helps you to enhance the productivity of your teams.

1. **What is Responsive Testing?**

A responsive web design involves creating a flexible web page that is accessible from any device, starting from a mobile phone to a tablet.

Responsive testing involves how a website or web application looks and behaves on different devices, screen sizes, and resolutions. The goal of responsive testing is to ensure that the website or web application can be used effectively on various devices, including desktops, laptops, tablets, and smartphones.

1. **Which types of tools are available for Responsive Testing**

There are Five Types of tools available for responsive testing:

1.LT Browser

2. Lambda Testing

3. Google Resizer

4. I am responsive

5. Pixel tuner

1. **What is the full form of .ipa, .apk**

**Ipa-** iOS App Store Package

**Apk-** Android Application Package

1. **How to create a step for opening the developer option mode ON?**

**Step 1**: Go to *Settings* > *About phone***.**

**Step 2:** Scroll Down and go to the Software information option and Tap Software information

**Step 3:** Tap *Build number* seven times. After the first few taps, you should see the steps counting down until you unlock the developer options. You may also have to tap in your PIN for verification.

**Step 4:** Once developer options are activated, you will see a message that reads, *You are now a developer*.

**Step 5:** Go back to the *Settings* pane and head to *System*, where you will now find *Developer options* as an entry.

**Step 6:** Tap it and toggle the switch on if it is not already, and from there, you can proceed to make adjustments to your phone.