**Module 3 (Testing on Live Application)**

1. What is RDBMS?

**RDBMS** stands for **Relational Data Base Management Systems**. It is basically a program that allows us to create, delete, and update a relational database. Relational Database is a database system that stores and retrieves data in a tabular format organized in the form of rows and columns. It is a smaller subset of DBMS which was designed by E.F Codd in the 1970s. The major DBMS like SQL, My-SQL, ORACLE are all based on the principles of relational DBMS.

Relational DBMS owes its foundation to the fact that the values of each table are related to others. It has the capability to handle larger magnitudes of data and simulate queries easily.

1. What is SQL?

SQL is Structured Query Language, which is a computer language for storing, manipulating and retrieving data stored in relational database.

SQL is the standard language for Relation Database System. All relational database management systems like MySQL, MS Access, Oracle, Sybase, Informix, postgres and SQL Server use SQL as standard database language.

1. Write SQL Commands?

DDL – Data Definition Language

DML – Data Manipulation Language

DCL – Data Control Language

DQL – Data Query Language

SQL Join Types

⚫ INNER JOIN: returns rows when there is a match in both tables.

⚫ LEFT JOIN: returns all rows from the left table, even if there are no matches in the right table.

⚫ RIGHT JOIN: returns all rows from the right table, even if there are no matches in the left table.

⚫ FULL JOIN: returns rows when there is a match in one of the tables.

DDL - Data Definition Language

CREATE: Creates a new table, a view of a table, or other object in database

ALTER: Modifies an existing database object, such as a table.

DROP: Deletes an entire table, a view of a table or other object in the database.

DQL – Data Query Language

SELECT: Retrieves certain records from one or more tables

DML – Data Manipulation Language

INSERT: Creates a record

UPDATE: Modifies records

DELETE: Deletes records

DCL – Data Control Language

GRANT: Gives a privilege to user

REVOKE: Takes back privileges granted from user

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?

Types of JOIN: -

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



* LEFT (OUTER) JOIN: Returns all records from the left table, and the matched records from the right table



* RIGHT (OUTER) JOIN: Returns all records from the right table, and the matched records from the left table



* FULL (OUTER) JOIN: Returns all records when there is a match in either left or right table



1. How Many constraint and describes it self?

constraints are the rules that we can apply on the type of data in a table. That is, we can specify the limit on the type of data that can be stored in a particular column in a table using constraints.

The available constraints in SQL are: 

* NOT NULL: This constraint tells that we cannot store a null value in a column. That is, if a column is specified as NOT NULL then we will not be able to store null in this particular column any more.
* UNIQUE: This constraint when specified with a column, tells that all the values in the column must be unique. That is, the values in any row of a column must not be repeated.
* PRIMARY KEY: A primary key is a field which can uniquely identify each row in a table. And this constraint is used to specify a field in a table as primary key.
* FOREIGN KEY: A Foreign key is a field which can uniquely identify each row in a another table. And this constraint is used to specify a field as Foreign key.

1. Difference between RDBMS vs DBMS?

| DBMS | RDBMS |
| --- | --- |
| [DBMS](https://www.geeksforgeeks.org/introduction-of-dbms-database-management-system-set-1/) stores data as file. | [RDBMS](https://www.geeksforgeeks.org/rdbms-architecture/) stores data in tabular form. |
| Data elements need to access 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 database. | RDBMS supports distributed database. |
| 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 small quantity of data. | It deals with large amount of data. |
| Data redundancy is common in this model. | Keys and indexes do not allow Data redundancy. |
| It is used for small organization and deal with small data. | It is used to handle large amount of data. |
| Not all Codd rules are satisfied. | All 12 Codd rules are satisfied. |
| Security is less | More security measures provided. |
| It supports single user. | It supports multiple users. |
| Data fetching is slower for the large amount of data. | Data fetching is fast because of relational approach. |
| The data in a DBMS is subject to low security levels with regards to data manipulation. | There exists multiple levels of data security in a RDBMS. |
| Low software and hardware necessities. | Higher software and hardware necessities. |
| Examples:[XML](https://www.geeksforgeeks.org/xml-basics/), Window Registry, Forxpro, dbaseIIIplus etc. | Examples: [MySQL](https://www.geeksforgeeks.org/architecture-of-mysql/), [PostgreSQL](https://www.geeksforgeeks.org/what-is-postgresql-introduction/), 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

API (Application Programming Interface) is a computing interface which enables communication and data exchange between two separate software systems.

The purpose of API Testing is to check the functionality, reliability, performance, and security of the programming interfaces.

In API Testing, instead of using standard user inputs(keyboard) and outputs, you use software to send calls to the API, get output, and note down the system’s response.

API tests are very different from GUI Tests and won’t concentrate on the look and feel of an application.

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 web design improves users’ browsing experience.

Considering this from a quality assurance perspective, a responsive web design requires thorough evaluation using a variety of devices before it is ready to go live.

Software testers may find it challenging to perform responsive design testing as a variety of factors are to be looked into during the testing phase.

points to be understand for Responsive Testing: -

The challenges involved in testing a responsive website

How website testing differs from a mobile device to a computer

Rules and guidelines to be followed during responsive design testing and

Lastly, various tools available to perform responsive testing

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

LT Browser

Lembda Testing

Google Resizer

I am responsive

Pixel tuner

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

 · **IPA** stands for "iOS App Store Package"

.APS stands for “android application package file”