SOFTWARE TESTING ASSIGNMENT
MODULE 3
TESTING ON LIVE APPLICATION

1.What is RDBMS?

- ➔ A relational database management system (RDBMS) is a collection of programs and capabilities that enable IT teams and others to create, update, administer and otherwise interact with a relational database. RDBMSes store data in the form of tables, with most commercial relational database management systems using Structured Query Language (SQL) to access the database. However, since SQL was invented after the initial development of the relational model, it is not necessary for RDBMS use

2.What is SQL?

- ➔ SQL stands for Structured Query Language
- ➔ SQL lets you access and manipulate databases
- ➔ SQL became a standard of the American National Standards Institute (ANSI) in 1986, and of the International Organization for Standardization (ISO) in 1987

3.Write SQL Command.

- ➔ Types of commnads in mysql:
- ➔ 1)DDL:Data Definition language
- ➔ =>create,alter,drop,truncate,rename

- ➔ 2)DML:Data Manipulation langauge
- ➔ =>insert,update,delete

- ➔ 3)DQL:Data Query Language
- ➔ =>select

- ➔ 4)DCL:Data Control Language
- ➔ =>rollback,commit

4.What is join?

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

5.Write type of joins.

- ➔ **Cross joins**
- ➔ Returns all possible combinations of rows from two tables.
- ➔ **Joins or inner joins**
- ➔ Uses a comparison operator to match rows from two tables that are based on the values in common columns from each table.
- ➔ **Left join/left outer join**
- ➔ Returns all the rows from the left table that are specified in the left outer join clause, not just the rows in which the columns match.
- ➔ **Right join/right outer join**
- ➔ Returns all the rows from the right table that are specified in the right outer join clause, not just the rows in which the columns match.
- ➔ **Full outer join**
- ➔ Returns all the rows in both the left and right tables.

6.How Many constraint and describes it self.

- ➔ Constraints can be specified when the table is created with the `CREATE TABLE` statement, or after the table is created with the `ALTER TABLE` statement.

SQL constraints are used to specify rules for the data in a table.

Constraints are used to limit the type of data that can go into a table. This ensures the accuracy and reliability of the data in the table. If there is any violation between the constraint and the data action, the action is aborted.

Constraints can be column level or table level. Column level constraints apply to a column, and table level constraints apply to the whole table.

The following constraints are commonly used in SQL:

- ➔ `NOT NULL` - Ensures that a column cannot have a NULL value
- ➔ `UNIQUE` - Ensures that all values in a column are different
- ➔ `PRIMARY KEY` - A combination of a `NOT NULL` and `UNIQUE`. Uniquely identifies each row in a table
- ➔ `FOREIGN KEY` - Prevents actions that would destroy links between tables
- ➔ `CHECK` - Ensures that the values in a column satisfies a specific condition
- ➔ `DEFAULT` - Sets a default value for a column if no value is specified
- ➔ `CREATE INDEX` - Used to create and retrieve data from the database very quickly.

7.Difference between RDBMS vs DBMS.

DBMS	RDBMS
DBMS stores data as file.	RDBMS 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.
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, Window Registry, etc.	Examples: MySQL, PostgreSQL, SQL Server, Oracle, Microsoft Access etc.

8.What is API Testing?

➔ API Testing is a software testing type that validates Application Programming Interfaces (APIs). 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. It mainly concentrates on the business logic layer of the software architecture.

9.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.
➔ Tools for API Testing
➔ PostMan
➔ SoapUI
➔ Jmeter VRest

10.What is Responsive Testing?

➔ 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.

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

➔ Following types of tools are available for Responsive Testing.

➔ LT Browser
➔ Lambda Testing
➔ Google Resizer
➔ I am responsive
➔ Pixel tuner

12.What is the full form of .ipa, .apk.

➔ iPA: iOS APP Store Package.

➔ APK: Android Application Package file

13.How to create step for to open the developer option mode ON?

- ➔ Open the Settings app, scroll down to the bottom of the list and select About phone or About device. On Android 8 and 10, you'll find the option under Settings > System.
- ➔ Scroll down the About phone menu to find the Build Number
- ➔ Tap the Build Number seven times. After a few taps, you'll see a message that reads "*You are now <number> steps away from being a developer*".
- ➔ Enter your PIN or pattern to enable the Developer Options menu. Once the settings are activated, you'll see the notification "*You are now a developer*".
- ➔ Tap the back button to return to the Settings pane. The Developer Options field will now appear in the Settings menu above the About phone option. In case, you don't find the option there, it may appear under Settings > System.
- ➔ Open the Developer Options menu and toggle the switch on (if it isn't already). You can now proceed to adjust the existing Developer Settings of your phone