

Software Testing Assignment

Module – 3 (Testing on Live Application)

1) What is RDBMS ?

- RDBMS stands for Relational Database Management System. It is an information management system that is oriented on a data model. Here all the information is properly stored as tables. RDBMS Example systems are SQL Server, Oracle, MySQL, MariaDB, and SQLite.

2) What is SQL ?

- Structured query language (SQL) is a programming language for storing and processing information in a relational database. A relational database stores information in tabular form, with rows and columns representing different data attributes and the various relationships between the data values. You can use SQL statements to store, update, remove, search, and retrieve information from the database. You can also use SQL to maintain and optimize database performance.

3) Write SQL Commands.

- **Types of commands in mysql :**

1) Data Definition language

=> create,alter,drop,truncate,rename

2) DML: Data Manipulation language

=> insert,update,delete

3) DQL: Data Query Language

=> select

4) DCL: Data Control Language

=> rollback,commit

4) What is Join ?

- The SQL JOIN joins two tables based on a common column, and selects records that have matching values in these columns.

5) Write types of Joins.

- **(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.

6) 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 an another table. And this constraint is used to specify a field as Foreign key.
- **CHECK:** This constraint helps to validate the values of a column to meet a particular condition. That is, it helps to ensure that the value stored in a column meets a specific condition.
- **DEFAULT:** This constraint specifies a default value for the column when no value is specified by the user.

7) Difference between RDBMS vs DBMS

DBMS	RDBMS
<u>DBMS</u> stores data as file.	<u>RDBMS</u> 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.

DBMS	RDBMS
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: <u>XML</u> , Window Registry, etc.	Examples: <u>MySQL</u> , <u>PostgreSQL</u> , SQL Server, Oracle, Microsoft Access etc.

8) What is API Testing ?

- API testing is a type of software testing that analyzes an application program interface (API) to verify it fulfills its expected functionality, security, performance and reliability. The tests are performed either directly on the API or as part of integration testing.

9) Types of API Testing

- **There are mainly 3 types of API Testing :**
 1. **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.
 2. **Partner APIs:** Specific rights or licenses to access this type of API because they are not available to the public.
 3. **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.

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 ?

- 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.

