Module – 3 (Testing on Live Application)

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Que: 1. What is RDBMS?

RDBMS stands for Relational Database Management System.

RDBMS is the basis for SQL, and for all modern database systems like MS SQL Server, IBM DB2, Oracle, MySQL, and Microsoft Access.

A Relational database management system (RDBMS) is a database management system (DBMS) that is based on the relational model as introduced by E. F. Codd.

The software used to store, manage, query, and retrieve data stored in a relational database is called a relational database management system (RDBMS). The RDBMS provides an interface between users and applications and the database, as well as administrative functions for managing data storage, access, and performance

How It Work:

- Data is represented in terms of tuples (rows) in RDBMS.
- A relational database is the most commonly used database. It contains several tables, and each table has its primary key.
- Due to a collection of an organized set of tables, data can be accessed easily in RDBMS.

Most of today's databases are relational:

- database contains 1 or more tables
- table contains 1 or more records
- record contains 1 or more fields
- fields contain the data

Que: 2. 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.

Also, they are using different dialects, such as:

- MS SQL Server using T-SQL, ANSI SQL
- Oracle using PL/SQL,
- MS Access version of SQL is called JET SQL (native format) etc.

- SQL stands for Structured Query Language
- SQL allows you to access a database
- SQL is an ANSI standard computer language
- SQL can execute queries against a database
- SQL can retrieve data from a database
- SQL can insert new records in a database
- SQL can delete records from a database
- SQL can update records in a database
- SQL is easy to learn
- SQL is written in the form of queries
- *action* queries insert, update & delete data
- *select* queries retrieve data from DB

Write SQL Commands :

1) DDL: Data Definition Language

- create
- alter
- truncate
- drop

2) DML: Data Manipulation Language

- insert
- update
- delete

3) DQL: Data Query Language

- select

4) DCL/TCL: Data/Transactional Control Language

- commit, rollback, save point

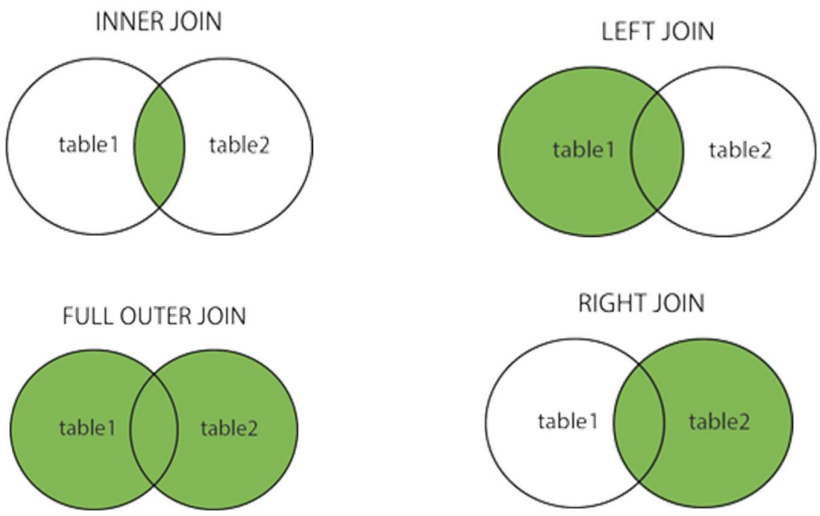
Que: 4. What is join?

A join is an SQL operation performed to establish a connection between two or more database tables based on matching columns, thereby creating a relationship between the tables. Most complex queries in an SQL database management system involve join commands.

Joining in SQL means retrieving data from two or more than two tables based on a common field. In other words, JOINs combine data from multiple tables in a result table based on a related column between those tables.

Que: 5. Write type 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



Que: 6. How Many constraint and describes itself..

1) Not Null : Ensure that column cannot have a NULL value.

2) Unique : Ensure that all values in a column are different.

3) Primary Key : A combination of a NOT NULL and UNIQUE.

4) Foreign Key : Prevents actions that would destroy links between tables (Used to link multiple tables together).

5) Check : Ensure that the values in a column satisfies a specific condition.

6) Default : Sets a default value for a column satisfies a specific condition.

7) Create Index : Used to create and retrieve data from the data very quickly.

Que: 7. Difference between RDBMS vs DBMS.

No.	RDBMS	DBMS
1.	Data stored into table format.	Data stored into file format.
2.	Multiple data elements are accessible together.	Individual access of data elements.
3.	Data in the form of a table are a linked together.	No connection between data.
4.	Normalisation is not achievable.	There is normalisation.
5.	Support disturbed database.	No support for distributed database.
6.	Data stored into a large amount.	Data stored into small quantity.
7.	here, redundancy of data is reduced with the help of key and index of RDBMS.	Data redundancy is common.
8.	RDBMS support multiple users.	DBMS support single user.
9.	It features multiple layers of security while handling data.	There is low security while handling data.
10.	The software and hardware requirements are higher.	The software and hardware requirements are low.
11.	oracle, and SQL server.	XML, Microsoft server.

Que: 8. 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.

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

Que: 9. 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

Que: 10. 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.
- Furthermore, a 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.

Some 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

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

Tools for Responsive Testing :

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

Que: 12. What is the full form of .ipa, .apk…

- Full form of .ipa:

  An **IPA (iOS App Store Package)** file is an iOS application archive file that stores an iOS app. Each IPA file includes a binary and can only be installed on an iOS device.

- Full form of .apk:

  APK file stands for (Android Application Package). APK is a file extension of an Android device. APK files can normally be used in Android and a number of other Android-based Operating Systems for the distribution and installation of mobile apps and mobile games.

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

The Developer options menu lets you configure system behaviors to improve app performance. The list of developer options will depend on the version of Android that your device is running.

For more information on what each of the developer options does, please visit the official Android Developer site.

On most Android devices the Developer options menu is hidden by default.

1) Go to "Settings"

2) Tap "About device" or "About phone"

3) Tap “Software information”

4) Tap “Build number” seven times

5) Enter your pattern, PIN or password to enable the Developer options menu

6) The "Developer options" menu will now appear in your Settings menu
   Depending on your device, it may appear under Settings > General >

7) Developer options.)To disable the Developer options menu, tap the switch on.