Module 3 (Testing on Live Application)

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.

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

2)What is SQL

->SQL Stands for Structured Query Language.

-> SQL is a language of database, it includes database creation, deletion, fetching rows and modifying rows etc.

-> SQL is a standard computer language for accessing and manipulating databases.

-> SQL is the standard programming language of relational DB.

-> 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

3)Write SQL Commands

-> SQL Commands is as the following:

- DDL – Data Definition Language
- DML – Data Manipulation Language
- DCL – Data Control Language
- DQL – Data Query Language

Command is as the following:

- **DDL:**

1)SQL CREATE DATABASE STATEMENT

CREATE DATABASE database_name;

2) SQL DROP DATABASE Statement:

DROP DATABASE database_name;

3) SQL CREATE TABLE STATEMENT

CREATE TABLE table_name(column1 datatype, column2 datatype, column3 datatype, ... , columnN datatype)

4)SQL ALTER TABLE STATEMENT

ALTER TABLE table_name {ADD|DROP|MODIFY} column name data type

5) SQL TRUNCATE TABLE STATEMENT

TRUNCATE TABLE table_name;

- **DML:**

1)SQL INSERT INTO STATEMENT

INSERT INTO table_name(column1, column2....columnN) VALUES (value1, value2....valueN);

2)SQL UPDATE STATEMENT

UPDATE table_name SET column1 = value1, column2 = value2....columnN=valueN [WHERE CONDITION];

3) SQL DELETE STATEMENT

DELETE FROM table_name WHERE {CONDITION}

- **DCL:**

1)SQL SELECT STATEMENT

SELECT column1, column2....columnN FROM table name

- **DQL:**

1)SQL COMMIT STATEMENT

COMMIT;

2)SQL ROLLBACK STATEMENT

ROLLBACK;

4)What is join?

->A JOIN in SQL is used to retrieve data from multiple tables based on a logical relationship between them, typically using foreign keys

5)Write type of joins.

->SQL Join Type is as the following:

1) INNER JOIN

2) LEFT JOIN

3)RIGHT JOIN

4)FULL JOIN

-> The Description is as the following:

1)**Inner join**:

-> The most frequently used and important of the joins is the INNER JOIN.

-> Syntax is as the following:

SELECT table1.column1, table2.column2...FROM table1INNER JOIN table2ON table1.common_filed = table2.common_field 5) Write type of joins

- **Left Join:**

-> returns all rows from the left table, even if there are no matches in the right table.

-> Syntax is as the following:

SELECT table1.column1, table2.column2...FROM table1LEFT JOIN table2ON table1.common_filed = table2.common_field

3) Right Join:

-> returns all rows from the right table, even if there are no matches in the left table.

-> Syntax is as the following:

SELECT table1.column1, table2.column2...FROM table1RIGHT JOIN table2ON table1.common_filed = table2.common_field;

4)Full Join:

-> returns rows when there is a match in one of the tables.

-> Syntax is as the following:

SELECT table1.column1, table2.column2...FROM table1FULL JOIN table2ON table1.common_filed = table2.common_field;

6) How Many constraint and describes it self

->There are 6 main types of constraints is as the following.

1. NOT NULL

->Ensures that a column cannot have a NULL (empty) value.

->Use case: Required fields like email, name, etc.

2. UNIQUE

->Ensures that all values in a column are different (no duplicates).

->Allows one NULL unless combined with NOT NULL.

3. PRIMARY KEY

->Combines NOT NULL + UNIQUE.

->Uniquely identifies each row in the table.

->One per table only.

4. FOREIGN KEY

->Creates a link between two tables.

->Ensures the value in a column matches a value in another table's primary key.

5. CHECK

->Validates that a value meets a specific condition.

6. DEFAULT

->Sets a default value for a column when no value is provided.

7)Difference between RDBMS vs DBMS.

->Difference between RDBMS & DBMS is as the following.

RDBMS	DBMS
RDBMS stands for Relational Database Management System	DBMS stands for Database Management System)
Stores data in files or hierarchical/network format	Stores data in tables
No relationships between data	Supports relationships via foreign keys
Less focus on integrity	Ensures data integrity using constraints
Usually not supported	Supports normalization
Limited	Supports multi-user environments
File systems, XML, Excel	MySQL, PostgreSQL, Oracle, SQL Server
Limited or none	Full support for ACID properties

8) What is API Testing ?

->API stands for Application Programming Interface.

->API is a software interface that allows two applications to interact with each other without any user intervention.

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

9)Types of API Testing ?

->There are mainly 3 types of API Testing is as the following.

1)Open API:

->These types of APIs are publicly available to use like OAuth APIs from Google. It has also not given any restriction to use them.

-> they are also known as Public APIs.

2) Partner API:

->Specific rights or licenses to access this type of API because they are not available to the public.

3) Internal API:

-> 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?

->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.

->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

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

-> Responsive Testing tools list is as the following.

1. LT Browser
2. Lembda Testing
3. Google Resizer
4. I am responsive
5. Pixel tuner

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

-> ipa :iOS App Store Package

apk:Android Package Kit

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

-> Steps to Enable Developer Options on Android:

1. Open the Settings app on your Android device.
2. Scroll down and tap on **About phone**
3. Find **Build number**
4. Tap "**Build number" 7 times**
5. You may be prompted to enter your device's lock screen password or PIN.
6. A message will appear:

7. "You are now a developer!"
8. Go back to Settings and look for "Developer options"
9. It usually appears under System or Additional settings, depending on the device.