Module : 3

**NAME : krishnakant sonar**

**\*what is RDBMS?**

RDBMS stands for Relational DataBase 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.

**\*What is SQL**

Structured Query Language is a computer language that we use to interact with a relational database. SQL is a tool for organizing, managing, and retrieving archived data from a computer database. The original name was given by IBM as Structured English Query Language, abbreviated by the acronym SEQUEL. When data needs to be retrieved from a database, SQL is used to make the request. The DBMS processes the SQL query retrieves the requested data and returns it to us. Rather, SQL statements describe how a collection of data should be organized or what data should be extracted or added to the database.

**\* Write SQL COMMANDS ?**

SELECT - extracts data from a database.

UPDATE - updates data in a database.

DELETE - deletes data from a database.

INSERT INTO - inserts new data into a database.

CREATE DATABASE - creates a new database.

ALTER DATABASE - modifies a database.

CREATE TABLE - creates a new table.

\***what is join ?**

SQL Join statement is used to combine data or rows from two or more tables based on a common field between them. Different types of Joins are as follows:

* INNER JOIN
* LEFT JOIN
* RIGHT JOIN
* FULL JOIN

**\* write types of joins?**

* INNER JOIN
* LEFT JOIN
* RIGHT JOIN
* FULL JOIN

**\*how manay constraints and dscribes 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.

CREATE TABLE table\_name (

column1 datatype constraint,

column2 datatype constraint,

column3 datatype constraint,

....);

SQL Constraints

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.

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

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

FOREIGN KEY - Prevents actions that would destroy links between tables

CHECK - Ensures that the values in a column satisfies a specific condition

**\*difference between rdbms vs dbms**

|  |  |
| --- | --- |
| dbms | rdbms |
| In DBMS, data is generally stored in either a hierarchical form or a navigational form | In RDBMS, the tables have an identifier called primary key and the data values are stored in the form of tables. |
| Normalization is not present in DBMS | Normalization is present in RDBMS. |
| DBMS does not apply any security with regards to data manipulation | RDBMS defines the integrity constraint for the purpose of ACID (Atomocity, Consistency, Isolation and Durability) property. |
| DBMS uses file system to store data, so there will be no relation between the tables. | in RDBMS, data values are stored in the form of tables, so a relationship between these data values will be stored in the form of a table as well. |
| DBMS has to provide some uniform methods to access the stored information. | RDBMS system supports a tabular structure of the data and a relationship between them to access the stored information. |
| DBMS does not support distributed database. | RDBMS supports distributed database. |
|  |  |

\*. **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

**\*. types of api testing?**

* Functional testing: Testing the functionality of the API to ensure it behaves as expected
* Security testing: Testing the security of the API to ensure it is protected against common vulnerabilities
* Performance testing: Testing the performance of the API to ensure it can handle the expected load
* Interoperability testing: Testing the compatibility of the API with other systems
* Usability testing: Testing the usability of the API for developers
* Tools such as Postman, SoapUI, and Runscope can be used to automate and simplify the process of API testing.

**\* what is responsive testing?**

Responsive testing is a process that renders web pages on viewports of multiple devices using CSS media queries based on the user device where the website is accessed. In simple terms, responsive testing ensures how responsive web design is optimized well for all types of screen sizes and resolutions

**\* which types of tools are available for responsive testing?**

* **Responsinator**
* **LambdaTest**
* **Screenfly**
* **Google Resizer**
* **Chrome Dev Tools**
* **Ghostlab**
* **Browserstack**
* **Ripple**

**\* what is the full form of .ipa, .apk**

The **full** **form** of these terms is as follows: **ipa**: iOS APP Store Package **apk**: Android Application Package file

**\* .how to create steps for open the developer option mode on?**