

Module – 3 Assignment

1 . what is RDBMS

Relational Database Management System (RDBMS) is an advanced version of a DBMS system. It came into existence during 1970's. RDBMS system also allows the organization to access data more efficiently than DBMS.

RDBMS is a software system which is used to store only data which need to be stored in the form of tables. In this kind of system, data is managed and stored in rows and columns which is known as tuples and attributes. RDBMS is a powerful data management system and is widely used across the world

2 . WHAT IS SQL

SQL stands for “Structured Query language’

SQL is the standard language for dealing with

Relational Databases. SQL can be used to insert,

search, update, and delete database records. SQL

can do lots of other operations, including

optimizing and maintenance of databases.

Here are important reasons for using SQL :-

- **It helps users to access data in the RDBMS system.**
- **It helps you to describe the data.**

- It allows you to define the data in a database and manipulate that specific data.
- With the help of SQL, you can create and drop databases and tables
- SQL offers you to use the function in a database, create a view, and stored procedure.
- You can set permissions on tables, procedures, and views.

3 . WRITE SQL COMMANDS

ANS- SQL COMMANDS :-

DDL -DATA DEFINITION LANGUAGE

DML- DATA MANIPULATION LANGUAGE

DCL- DATA CONTROL LANGUAGE

DQL- DATA QUERY LANGUAGE

DDL - DATA DEFINITION LANGUAGE

Command description

Create creates a new table , a view of a table , or other object in database

Alter modifies an existing database object , such as a table

Drop deletes an entire table , view of a table or other object in the database in the database,

DML- data manipulation language

command description

Insert creates a records

Update modifies record

Delete deletes records

DCL - DATA CONTROL LANGUAGE

Command description

Grant gives a privilege to user

Revoke takes back privileges granted from users

DQL- DATA QUERY LANGUAGE

Command description

Select retrieves certain records from one or more tables

4 . WHAT IS JOINS

Introduction:- SQL joins are used to fetch or retrieve data from two or more data tables, based on a join condition. A join condition is a relationship among some columns in the data tables that take part in SQL join. Basically data tables are related to each other with keys. We use these keys relationship in SQL joins. A primary key is a column or a combination of columns with a unique value for each row. Each primary key value must be unique within the table. The purpose is to bind data together, across tables, without repeating all of the data in every table.

5 . WRITE TYPE OF JOIN

Types of Joins: There are different types of join, they are

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SQL Join Types :-

- **INNER JOIN:** returns rows when there is a match in both tables.
- **LEFT JOIN:** returns all rows from the left table, even if there are no

Matches in the right table.

- **RIGHTJOIN:** returns all rows from the right table, even

if there are no

Matches in the left table.

- **FULLJOIN:** returns rows when there is a match in one

of the tables.

INNER JOIN:

The most frequently used and important of the joins is the INNER JOIN. They are also referred to as an EQUI JOIN.

The INNER JOIN creates a new result table by combining column values of two tables (table1 and table2) based upon the join predicate. The query compares each row of table1 with each row of table2 to find all pairs of rows which satisfy the join-predicate.

When the join-predicate is satisfied, column values for each matched pair of rows of A and B are combined into a result row.

The INNER JOIN in SQL joins two tables according to the matching of a certain criteria using a comparison operator.

LEFT JOIN:

The SQL LEFT JOIN returns all rows from the left table, even if there are no matches in the right table. This means that if the ON clause matches 0 (zero) records in right table, the join will still return a row in the result, but with NULL in each column from right table.

This means that a left join returns all the values from the left table, plus matched values from the right table or NULL in case of no matching join predicate.

RIGHT JOIN:

The SQL RIGHT JOIN returns all rows from the right table, even if there are no matches in the left table. This means that if the ON

clause matches 0 (zero) records in left table, the join will still return a row in the result. But with NULL in each column from left table. This means that a right join returns all the values from the right table, plus matched values from the left table or NULL in case of no matching join predicate.

FULL JOIN:

In SQL the FULL OUTER JOIN combines the results of both left and right outer joins and returns all matched or unmatched rows from the tables on both sides of the join clause.

6 . HOW MANY CONSTRAINT AND DESCRIBES IT SELF

1. not null constraints

Not NULL constraints prevent null values from being entered into a column.

2. Unique constraints ensure that the values in a set of columns are unique and not null for all rows in the table . the columns specified in a unique constraint must be defined as not NULL. The data base manager uses a unique index to enforce the uniqueness of the key during changes to the columns of the unique constraint

3. Primary key constraints

You can use primary key and foreign key constraints to define relationships between tables.

4. Check constraints

A check constraint specifies the value allowed in one or more columns of every row of a table. Specifying check constraints is done through a restricted form of a search condition.

5. Foreign key constraints

Foreign key constraints (also known as referential constraints or referential integrity constraints)

Enable definition of required relationships between and within tables.

6. Informational constraints

An informational constraint is a constraint attributes that can be used by SQL

Compiler to improve the access to data. Informational constraints are not enforced

By the database manager, and are not used for additional verification of data; rather they are

Used to improve query performance.

7 . DIFFERENT BETWEEN RDBMS VS DBMS

DBMS

=>DBMS stores data as files.

=>Data elements needs to access individual

=> no relationship between data.

=> normalization is not present.

=>DBMS does not support distributed

Database

=>it stores data in either a navigations

Or hierarchical form.

=>it deals with small quantity of data.

=>data redundancy is common in this model.

=>it is used for small organization and deal with

Small data

=> it support singel user.

=> data fetching is slower for the large amount

Of data

RDBMS

=> RDBMS stores data in tabular forms.

=>multiple data elements can be accessed

At The same time

=> data is stored in the form of tables which

Are related to each other

=> normalization is present.

=>RDBMS supports distributes database.

=>it uses a tabular structure where the

Headers are the column names, and the

Rows contain corresponding values

=> it deals with large amount of data.

=> keys and indexes do not allow data

Redundancy.

=>it is used to handel large amount of

data

=> it support multiple users.

=>data fetching is fast because of relational

approach

=>the data in a DBMS is subject to low security Level with regards to data manipulation	=>there exists multiple levels of data security in a RDBMS
=>low software and hardware necessities. necessities.	=>higher software and hardware
=>examples: XML, window registry etc.	=>example: 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.

API Testing image

For background, API (Application Programming Interface) is a computing interface that enables communication and data exchange between two separate software systems. A software system that executes an API includes several functions/subroutines that another software system can perform. API defines requests that can be made, how to make requests, data formats that can be used, etc., between two software systems.

9 . TYPES OF API TESTING

1. open APIs
2. Partner APIs
3. Internal APIs

10 . WHAT IS RESPONSIVE TESTING

Responsive testing is a process that 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 resolution.

11 . WHICH TYPES OF TOOLS ARE AVAILABLE FOR RESPONSIVE TESTING

- 1. LT BROWSER**
- 2. LEMBDA TESTING**
- 3. GOOGLERESIZER**
- 4. IAMRESPONSIVE**
- 5. PIXELTUNER**

12 . WHAT IS THE FULL FORM OF . IPA, APK

- .ipa international phonetic alphabet
.apk: android package kit

13 HOW TO CREATE STEP FOR TO OPEN THE DEVELOPERS OPTION MODE ON

- 1. Setting**
- 2. Additional setting**
- 3. Developer option**
- 4. Enter code**
- 5. Use**
- 6. Developer option on**