**Module-4 Database**

1.What is RDBMS.

Ans. Its store data in the form of tables(rows and columns), with most commercial relational database management systems using Structured Query Language (SQL) to access the database.

2. What is SQL

Ans. is a domain-specific language used in programming and designed for managing data held in a relational database management system.

3. Write SQL Commands

Ans. 1) DDL : Data Definitaion Lang. : create table, create database, use , truncate etc.

2) DML : Data Manipulation Lang. : insert , update, delete

3) DQL : Data Query Lang. : select

4) DCL/TCL : Data/Transactional Control Lang. : commit,rollback etc..

4. What is join?

Ans. A JOIN clause is used to combine rows from two or more tables, based on a related column between them.

5.Write type of joins.

Ans. (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.

* Ans.

[NOT NULL](https://www.w3schools.com/sql/sql_notnull.asp) - Ensures that a column cannot have a NULL value.

The NOT NULL constraint enforces a column to NOT accept NULL values.

[UNIQUE](https://www.w3schools.com/sql/sql_unique.asp) - Ensures that all values in a column are different.

* The UNIQUE constraint ensures that all values in a column are different.
* Both the UNIQUE and PRIMARY KEY constraints provide a guarantee for uniqueness for a column or set of columns.

[PRIMARY KEY](https://www.w3schools.com/sql/sql_primarykey.asp) - A combination of a NOT NULL and UNIQUE. Uniquely identifies each row in a table.

* The PRIMARY KEY constraint uniquely identifies each record in a table.
* Primary keys must contain UNIQUE values, and cannot contain NULL values.

[FOREIGN KEY](https://www.w3schools.com/sql/sql_foreignkey.asp) - Prevents actions that would destroy links between tables.

* The FOREIGN KEY constraint is used to prevent actions that would destroy links between tables.
* A FOREIGN KEY is a field (or collection of fields) in one table, that refers to the [PRIMARY KEY](https://www.w3schools.com/sql/sql_primarykey.asp) in another table.

[CHECK](https://www.w3schools.com/sql/sql_check.asp) - Ensures that the values in a column satisfies a specific condition.

* The CHECK constraint is used to limit the value range that can be placed in a column.
* If you define a CHECK constraint on a column it will allow only certain values for this column.

[DEFAULT](https://www.w3schools.com/sql/sql_default.asp) - Sets a default value for a column if no value is specified.

* The DEFAULT constraint is used to set a default value for a column.
* The default value will be added to all new records, if no other value is specified.

[CREATE INDEX](https://www.w3schools.com/sql/sql_create_index.asp) - Used to create and retrieve data from the database very quickly.

* The CREATE INDEX statement is used to create indexes in tables.

7. Difference between RDBMS vs DBMS.

Ans.

|  |  |
| --- | --- |
| RDBMS | DBMS |
| [RDBMS](https://www.geeksforgeeks.org/rdbms-architecture/) stores data in tabular form. | [DBMS](https://www.geeksforgeeks.org/introduction-of-dbms-database-management-system-set-1/) stores data as file. |
| It deals with small quantity of data. | It deals with large amount of data. |
| Security is less. | More security measures provided. |

8. What is an SQL alias?

Ans. SQL aliases are used to give a table, or a column in a table, a temporary name.

Aliases are often used to make column names more readable.

An alias only exists for the duration of that query.

An alias is created with the AS keyword.

9. Write a query to create the table in Structured Query Language.

Ans. CREATE TABLE table\_name

 (  
    column1 datatype,  
    column2 datatype,  
    column3 datatype,  
);

10. Write a query to insert data into table.

Ans. *INSERT INTO table\_name*

*VALUES (value1, value2, value);*

11. Write a query to update data into table with validations.

Ans. Ex.

UPDATE employees

SET salary = 5000

WHERE employee\_id = 101 AND 5000 > 0;

12. Write a query to delete data from table with validations.

Ans. Ex.

DELETE FROM employees

WHERE employee\_id = 101

AND department = 'Sales';

13. Write a query to insert new column in existing table.

Ans. Ex.

ALTER TABLE employees

ADD COLUMN status VARCHAR(20);

14. Write a query to drop table and database.

Ans. DROP TABLE employees;

15. Write a query to find max and min value from table.

Ans.

SELECT

MAX(salary) AS max\_salary,

MIN(salary) AS min\_salary

FROM employees;

16. Create two tables named Seller and Product apply foreign key in product table

Fetch data from both table using different joins.

17. What is API Testing .

Ans. API testing is a type of software testing that verifies an Application Programming Interface (API) to ensure it functions correctly, reliably, and securely.

18. Types of API Testing.

Ans.

* Functional Testing
* 2. Performance Testing
* 3. Security Testing
* 4. Integration Testing
* 5. Unit Testing
* 6. Interoperability Testing
* 7. Load Testing
* 8. Fuzz Testing
* 9. Regression Testing
* 10. Validation Testing
* 11. Smoke Testing

19. What is Responsive Testing?

Ans. Responsive testing verifies how a website or web application adapts to different devices, screen sizes, and resolutions, ensuring a consistent and optimal user experience across various platforms.

20. Which types of tools are available for Responsive Testing.

Ans.

LT Browser

Lembda Testing

Google Resizer

I am responsive

Pixel tuner

21. What is the full form of .ipa, .apk

Ipa: iOS App Store Package

Apk : Android Package Kit.

22. How to create step for to open the developer option mode ON?

Ans. navigate to Settings > About phone > Build number and tap the Build number seven times.