**SQL**

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**What is DataBase:**

It is an application which stores the collection of data.

* Each database has one (or) more distinct API’s for creating the data Managing and copy the data, searching the data &also replicating in the data.
* File—Un change/ can’t update/ can’t organization the data in the files.

**What is API:** Application programing interface which is a set of rules that allow software applications to communicate with each other

**What is Excel:** Excel is a spread sheet program that helps users organize, analyze, and calculate data. It's part of the Microsoft 365 software suite, which also includes Word, PowerPoint, Teams, and Outlook.

* Less secure everyone can access the data for security reasons we can’t take for storage.

**What is DBMS:** Data base management system it stores the data in the form of tables.

**Challenges of DBMS:**

* Relations is not possible for accessing the data.

**What is RDBMS:** Relational Data base Management system it stores the data in the form of a table can also map them in to one location to another.

**Advantage of RDBMS:**

* It will retrieve the data very quickly.
* Operations will be very effective.

Databases are 2 types:

1. RDBMS:

Relational Data base Management system it stores the data in the form of a table can also map them in to one location to another

1. NON RDBMS : It stores the data in the form of key values(j-son format)

**MYSQL database:**

My sql (server (platform) sql language with sql (structured query language)

* To create a project we need:
* Front end- view the data.
* Back end- Interaction between the data and programming.
* Database- storage to provides space to store the application.

**Database components:**

1. Client
2. Server

Mysql uses 2 types of commands:

1. DDL: Data definition language
2. DML: Data manipulation language

**DDL: Data definition language :**

* Create: to create a database, tables.
* Alter: Update---> add a row or column we use alter.
* Drop: Delete the records from the Database( total delete)
* Truncate: removes the records from the tables.
* Rename: rename the table or records in the existing Database

**DML: Data manipulation language:**

* Insert: Insert data into a table
* Update: updates the existing data within table
* Delete: delete the records from the Database table
* Call: PL/SQL, java programming
* Explain call

**Data types:**

1. CHAR: (size) a fixed length string character’ s are allowed
2. VARCHAR: (size) a variable string length
3. BINARY: (size) equal to CHAR , default it will be 1
4. TEXT: (size) holds a string with a max length of 65.535 bytes.
5. TINYTEST: (size) holds a string with a max length of 255 bytes