**MYSQL DOCUMENT**

**SQL:** Structured query language.

**MySQL:** It is a database management system and it refers to server platform in SQL long.

**Database:** It is an application which we can store the collection of data or information.

Ex: Files, Images, Videos, Numbers like this etc…

Each database has one (or) more distinct API’S (it is for creating data, manging data, and searching data).

**API MEANS: Application Programming Interface**

**Files:** We can’t change it and we can’t update, and we can’t organise the data in the files**.**

**Excel:** In this there will be the risk of the security and storage.

**DBMS: Database Management System**

* We can store the data in the form of tables
* It is a software system that enables users to define, create, maintain, and control access to databases.
* It will manage data, the database engine, and the database schema to facilitate the organization and manipulation of data.

**There are some challenges in this DBMS:**

* Relations is not possible for the accessing the data in this.
* **RDMS (Relational database management system**) it is used to store and manage the data.
* It is a type of DBMS that is based on the relational model. In an RDBMS, data is stored in tables and the relationships between data are defined using foreign keys.
* We can store the data in the form of tables and we can also map them from one location to the other location
* It will retrive the data very fastly.
* It is operation will be very effective (we will get the exact o/p)

Databases are two types:

1. RDMS
2. NON-RDMS

**RDMS means:** **RDMS (Relational database management system**) it is used to store and manage the data.

**NON-RDMS:** It is used to store the data in the form of key-values (J-son format).

**MySQL Database:** It refers to MySQL along with SQL.

**When we doing a project we need**

1. **Front End:** It is used to view the data.
2. **Back End:** It provides the interaction b/w the data & the programming**.**
3. **Data Base:** It is used for the storage and it will provide the space to space to the application**.**

**Data Base are two types**

1. Client
2. Server

**MySQL uses are of two types of commands:**

1. **DDL command ------- Data Definition Language**
2. **DML command ------ Data Manipulation Language**

**Data Definition Language (DDL):**

1. **Create:** It is used to create a database and tables
2. **Alter:** It is used to update (to add rows/columns)
3. **Drop:** It is used to delete the records from the database
4. **Truncate:** It is used to remove the records from the tables
5. **Rename:** we can rename the tables or records in the existing database

**Data Manipulation Language (DML):**

1. **Insert:** It is used to insert the data into the table.
2. **Update:** It is used to update the existing date with in a table.
3. **Delete:** it is used to delete the records from the database of the table.
4. **Call:** It is used in the programming language like SQL, JAVA programming in them.

**Data types:**

1. **CHAR(Size):** It is a fixed length string characters are allowed.
2. **VARCHAR(Size):** It is a variable string length**.**
3. **Binary (Size):** It is equal to the CHAR; by the default it will be one.
4. **Text (Size):** It will hold a string with a max length is from the 65 -535 bytes.
5. **TINYTEXT:** It will holds a string with a max length is from the 255 bytes.

**JOINTS:**

* It is used with select statement.
* It is combining data from two or more tables based on related columns.
* It is used to retrieve the data from multiple tabled from same databases.
* It is fetching the records from different tables will be very easy.

There are three joints they are:

1. Inner Join
2. Outer Join
3. Right join

**Inner Join:** It returns only the rows where there is a match in the both tables being joined.

🡪 Inner join is most commonly used join in MySQL.

Syntax: select\*from whatsapp inner join likes on whatsapp.name = views. name;

**Left Join:** It returns all rows from the left table & matched rows from the right table**.**

Syntax: select\*from whatsapp left join likes on whatsapp.name = views. name;

**Right Join:** It returns all rows from the right table and the matched rows from the left table.

Syntax: select\*from whatsapp right join likes on whatsapp.name = views. name;

**Self Join:** In a self join the table is joined with itself instead of with the another table.

🡪 It is used when we want to combined rows from the same table based on a related column or condition.

Syntax: select column \_ name from the table1, table2 where condition;

**Cross Join:** It will return all the records from both the tables (table1 & table2)

🡪 It is also known as a Cartesian join.

🡪 It is a type of join that combines all the rows from one table with the all rows from the another table.

**use sravya;**

**create table whatsapp**

**(name varchar(10),pnumber int,likes int);**

**insert into whatsapp values('sravya',0987654321,8);**

**insert into whatsapp values('kallu',569874321,9);**

**insert into whatsapp values('LP',346654321,5);**

**insert into whatsapp values('sageetha',765432456,6);**

**select\*from whatsapp**

**=============================================================**

**use sravya;**

**create table views**

**(name varchar(10),views int);**

**insert into views values('sravya',35);**

**insert into views values('kallu',37);**

**insert into views values('LP',29);**

**select\*from views;**

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**select\*from whatsapp;**

**select\*from views;**

**select\*from whatsapp inner join views on whatsapp.name=views.name;**

**select\*from whatsapp right join views on whatsapp.name=views.name;**

**select\*from whatsapp left join views on whatsapp.name=views.name;**

**select \* from whatsapp self join views;**

**select\*from whatsapp cross join views;**