**MYSQL**

**Database:** It is an application that stores the collection of data.

Each database has one or more distinct APIs.

**API**: It is used to create, manage, store, search, and replicate data.

**Files:** Unchanged, cannot update/cannot organize the data in the files.

**Excel:**

* It is less secure than files.
* By storing more data it works slower.
* For security and storage purposes we are not going for Excel.

**DBMS(Database Management System):** It can store data in the form of tables.

**Challenges of DBMS:**

* Relations are not possible for accessing the data.

**The database is of 2 types:**

1. **RDMS(Relational Database Management System):** It stores the data in the form of tables and map the data from one location to another location.

**Advantages:**

* It will retrieve data very quickly.
* Operations are also very effective.

**2.Non-RDMS(Non-Relational Database Management system):** It stores the data in the form of key values format.

MySQL Database(Mysql with SQL)

Mysql refers to the server platform SQL Language.

**To create a project we need**

1.frontend-- >To view the data

2. Back end---->interaction between the data and programming.

3. Database: To store the data and provide space to store applications.

Database Components

1. Client

2. Server

MySql uses 2 types of commands

**1.DDL(Data Definition Language):**

DDL commands create, modify, and delete the database's structure like table, and schemas.

**Commands**

**1. Create:** Used to create databases, tables.

**2. Alter:** Add a row or column to the existing table.

**3. Drop:** delete records from the database.

**4. Truncate:**It will remove the records from the table.

**2.DML(Data Manipulation Language):**It deals with the manipulation of the data present in the database.

**Commands**

**Insert:** Used to insert data into the table.

**Update:** Update the existing data in a table.

**Delete** Deletes the records from the database.

**Call:** Call a PL/SQL or Java subprogram.

**Explain call:** Describe the access path to the data**.**

**Data Types:**

**Char(size):** Fixed lengths of characters are allowed.

**Varchar(size):** Variable length string is allowed.

**Binary(size):** Equal to char but stores binary values by default it is 1.

**Text(size):** Holds a string with a max length of 65 to 535 bytes.

**TINYTEXT**: Holds a string of a maximum of 255 characters.

Steps:

1. create a database as create **database name;**

2. Enter into the database as **use database name;**

3. To view the tables in the database use **show tables;**

4. create a table as

**Create table table name(col1 datatype(size),col2 datatype(size)……));**

5. Insert the data into the table as

**Insert into table name values(‘value1’,’value2’,’value3’…….);**