==git clone URL== : this command is use to download remote repository to local machine.

Git clone URL : this command is use to download new repository from remote to local

You need to move inside a repository using command as cd repositoryfoldername

Using ==pwd== command please check the path of terminal

Then ==git pull== this command is use to download new contents from remote to local existing repository.

==Database==

==Program :== ==set of instruction to perform a specific task.==

Application : we creation program or app using java, python, C or C# etc.

Input : keyboard(console base, GUI or mobile base etc)  enter value of a and b

Process compute : sum = a+b;

Output display the output (console, gui or mobile screen)

We can store the data.

File base system

Database system

File handling program

Limitation of file base system

1. Data redundancy (means we can store data again and again)
2. Data inconsistency (files format of the file and type of file)

Emp.txt

Id,Name,Salary

1,Steven,12000

2,John,16000

Emp.doc

| Id | Name | Salary |
|----|------|--------|
| 1 | Steven | 12000 |
| 2 | John | 16000 |

Id/Name/Salary

1/Steven/12000

2/John/16000

## Database

Data               : raw fact

Information       : processed data or meaningful data.

Database :        storing the data in table format

DBMS   : database management system : it is a software which help to store the data in table format.

RDBMS : Relational database management system

PK(primary key)	if column is pk that column doesn't allow duplicate as well as doesn't allow null value. (we can't leave empty)

PK

| TId | TName | tech |
|-----|-------|------|
| 1 | Raj | Java |
| 2 | Raj | Java |
| 3 | Ravi | Python |

Student

PK

| Sid | SName | age | TId | TName | tech |
|-----|-------|-----|-----|-------|------|
| 100 | Reeta | 21 | 1 | Raj | Java |
| 101 | Meeta | 22 | 3 | Ravi | Python |
| 102 | Keeta | 23 | 1 | Raj | Java |
| 103 | Veeta | 24 | 2 | Raj | Java |

Student

PK	FK(Foreign Key) it is use to connect pk of same or different table if column is FK that column allow only those values present in pk. FK can allow duplicate value as well as it allow null value.

| PK | | | FK | |
|----|----|----|----|----|
| Sid | SName | age | TSID | (Link with Trainer table with TId PK) |
| 100 | Reeta | 21 | 1 | |
| 101 | Meeta | 22 | 3 | |
| 102 | Keeta | 23 | 1 | |
| 103 | Veeta | 24 | 2 | |
| 104 | Leeta | 25 | null | |

| Databases Name | Company |
|---|---|
| MySQL | Sun micro system /oracle |
| Oracle | oracle |
| Db2 | IBM |
| SQL Server 2021 | micro soft |

All RDBMS database use SQL (Structured Query Language)

SQL use commands or English statement to interact with RDBMS databases

80 to 90 SQL query are same in all databases but if we move from one database to another database

10% query get changes.

MySQL is a type of an open source database which support RDBMS features.

Open source : freely provide that tool or software.

Once we login to mysql Database using command as

Open the terminal

sudo mysql -u root

by default mysql user name is root.

We can connect mysql database using two ways

1. Command line (CLI)
2. GUI (Workbench )

MySQL Commands

show databases;        it will display all databases present in root login.

database : it is like a container which hold more than one table details.

use databasename;        this command is use to move inside particular database.

show tables;        this command is going to display all tables present in current database.

create database databasename;        it is use to create user defined database.

create database mydb;

Entity

Product

Employee

Customer

Account

Person

Manager

Car

Bike


Demo

Employee        : attribute or property or column

PK

Data type :        data type is a type of data which tells what type of value it can hold or store.

int                varchar(10)        int

PK

EmpId            Name                Age



create table tableName(columnName datatype primary key, columnName datatype……..)


create table employee(eid int primary key,name varchar(10), age int)


desc employee;        this command provide table structure.