MySQL - RDBMS

DBMS vs RDBMS

SQL

MySQL

Installation

- Server = mysqld.exe
    - C:\Program Files\MySQL\MySQL Server 8.0\bin
- Client = mysql.exe
    - C:\Program Files\MySQL\MySQL Server 8.0\bin
- MySQL data directory/folder
    - C:\ProgramData\MySQL\MySQL Server 8.0
- Default user of MySQL = "root" (administrator).
    - Password is given during installation = "manager".
- Set PATH.
    - Windows explorer.
    - This PC (right click) --> Properties --> Advanced System Settings --> Advanced --> Environment Variables
        - User Variables --> PATH --> EDIT
        - Click New --> Add MySQL PATH at the end "C:\Program Files\MySQL\MySQL Server 8.0\bin".
- Open "Command Prompt"
    - cmd> mysql --version

Getting started

- step 1. Login with "root" user.

    - cmd> mysql -u root -p
        - Password: manager

- step 2. Create a new user.

    - mysql> CREATE USER sunbeam@localhost IDENTIFIED BY 'sunbeam';

- step 3. Create a new database/schema.

    - mysql> CREATE DATABASE classwork;
    - mysql> SHOW DATABASES;

- step 4. Give all permissions to the new user on the new database.

    - mysql> GRANT ALL PRIVILEGES ON classwork.* TO sunbeam@localhost;
    - mysql> FLUSH PRIVILEGES;

- step 5. mysql> EXIT

- step 1. Login with new user and password on MySQL CLI.

    - cmd> mysql -u sunbeam -p
        - Password: sunbeam

- step 2. Execute queries -- DDL, DML, DQL, ...

    - mysql> SHOW DATABASES;
    - mysql> SELECT USER(), DATABASE();
    - mysql> USE classwork;
    - mysql> SELECT USER(), DATABASE();
    - mysql> SHOW TABLES;

- MySQL screen clear.

    - mysql> ! cls

- CREATE TABLE

    - CREATE TABLE tablename (col1 DATATYPE, col2 DATATYPE, col3 DATATYPE, ...);

- INSERT

    - INSERT INTO tablename VALUES (v1, v2, v3, ...);
    - INSERT INTO tablename VALUES (v1, v2, v3, ...), (v1, v2, v3, ...), (v1, v2, v3, ...), ..;

- SELECT

    - SELECT * FROM tablename;
        - * means All columns.

```
SHOW TABLES;

CREATE TABLE stud(id INT, name CHAR(20), marks DOUBLE);

SHOW TABLES;

DESCRIBE stud;

INSERT INTO stud VALUES (1, 'Soham', 98.20);

INSERT INTO stud VALUES (2, 'Sakshi', 97.40);

INSERT INTO stud VALUES (3, 'Prisha', 99.30), (4, 'Madhura', 96.29), (5, 'Om',
97.45);

SELECT * FROM stud;

INSERT INTO stud(name, marks, id) VALUES ('Pratham', 95.39, 6);
INSERT INTO stud(id, name) VALUES (7, 'Vedant');
```

```
SELECT * FROM stud;
```

```
CREATE TABLE students(id INT, name CHAR(20), marks DOUBLE);

SHOW TABLES;

SELECT * FROM students;

INSERT INTO students SELECT * FROM stud;

SELECT * FROM students;
```

```
DROP TABLE students;

SHOW TABLES;
```