

SQL

The Structured Query Language (SQL)- pronounced S-Q-L; is used for creating, querying, updating and manipulating data in relational databases.

- **Case Sensitivity:** SQL is not case sensitive, but most developers write the SQL keywords all uppercase, because it makes these statements easier to read.
- **White Space:** The line breaks also don't matter. SQL is not sensitive to white space. You can split a SQL statement into multiple lines for readability.
- **SemiColon:** Officially, a complete SQL statement should be ended with a semicolon.
- **Comments:** You can write comments in two ways: either using the c-style comment, or using two hyphen characters (with no space between them) followed by a space and the comment text.

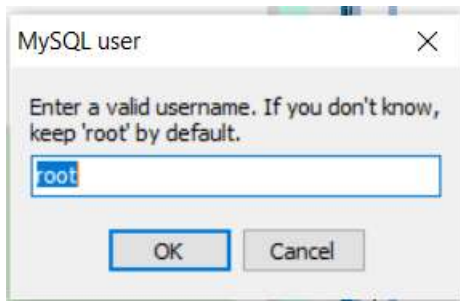
*/**

***this is a
multi-line comment.***

**/*

SELECT * FROM EMPLOYEE; -- this is a single line comment

1. Start the WAMP server.
2. Go to MYSQL then MYSQL Console.
3. Following window will appear:



4. Click Ok then console will ask you to Enter password:
5. Just press Enter. By default for MySQL user is "root" and password is nothing.
6. Following window i.e. MYSQL console will appear on your screens:

```
c:\wamp64\bin\mysql\mysql5.7.21\bin\mysql.exe
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.5.16 MySQL Community Server (GPL)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

- First Command you will run will be:
show databases;
This is used to list all the existing databases in the server.
- To create a database you will use:
CREATE DATABASE IF NOT EXISTS DEMOPRACTICE;
- The command “USE databasename” sets a particular database as the default (or current) database.
USE DEMOPRACTICE;
- To display the current default database, issue command:
SELECT DATABASE();
- To see table in the database use command:
SHOW TABLES;
- To create a table; the generic SQL syntax is:
CREATE TABLE table_name (column_name column_type);
e.g. we want to create the following table “**student**”:

student_ID	student_name	student_rollno	student_subject
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```
create table student (  
    student_ID INT NOT NULL AUTO_INCREMENT,  
    student_name VARCHAR(100) NOT NULL,  
    student_rollno VARCHAR(40) NOT NULL,  
    student_subject VARCHAR (150) NOT NULL,  
    PRIMARY KEY (student_ID)  
);
```

- Field Attribute **NOT NULL** is being used because we do not want this field to be NULL. So, if a user will try to create a record with a NULL value, then MySQL will raise an error.
- Field Attribute **AUTO_INCREMENT** tells MySQL to go ahead and add the next available number to the id field.
- Keyword **PRIMARY KEY** is used to define a column as a primary key. You can use multiple columns separated by a comma to define a primary key.

- **To describe the fields i.e. columns of the table:**

```
DESCRIBE student;
```

Inserting Data into the table:

- **INSERT INTO command** is used to insert data in the table.

e.g.

```
INSERT INTO student VALUES  
    (1001, 'Ashish', '20CS01', 'Computer Science'),  
    (1002, 'Ishan', '20CS02', 'Computer Science');
```

To query the table:

- **SELECT * FROM student;**