Java Database Connectivity with MySQL

Step 1: Download and Install Mysql

Please follow the steps given in the below link and install MySQL

https://www.javatpoint.com/how-to-install-mysql

Step 2: Create table using MySQL command line client

From the start menu, open the **MySQL Command Line Client** and provide the root user password.

Connect to the Database and create the table using the script below.

```
create table Employee_TBL
  (
    EID int primary key,
    ENAME varchar(20),
    EMAIL varchar(30)
  );
```

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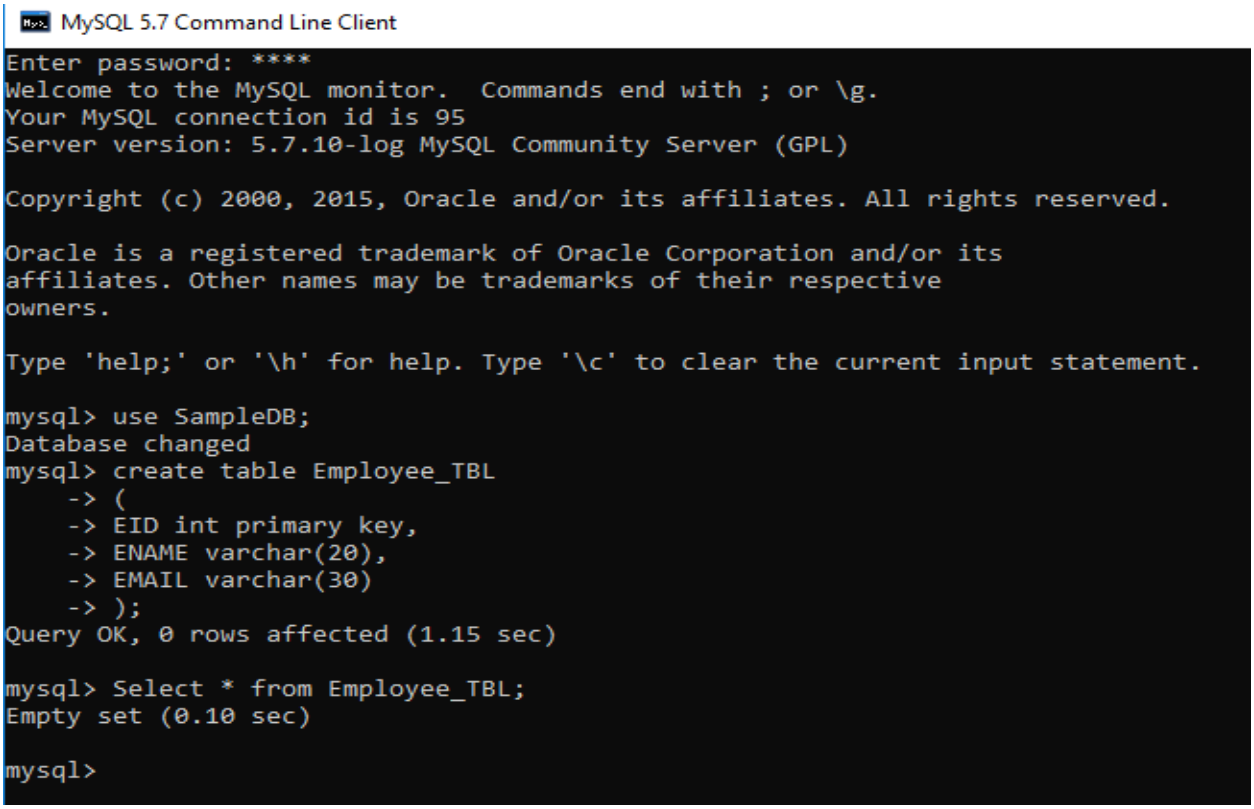

https://www.tutorialspoint.com/mysql/mysql-create-tables.htm

Step 3: Download Mysql driver

The MySQL driver can be downloaded from the below link

https://static.javatpoint.com/src/jdbc/mysql-connector.jar

Step 4: Add driver to classpath

In Eclipse Project, add the jdbc **mysql-connector** to the build path

Java Build Path -> Libraries ->Add External JARs -> Choose mysql-connector.jar

Step 5: Write Program

Refer the below link for a sample JDBC program

https://www.javatpoint.com/example-to-connect-to-the-mysql-database

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Sample program using java.sql.Statement

```
import java.sql.*;
class MysqlCon{
  public static void main(String args[]){
    try{
        Class.forName("com.mysql.jdbc.Driver");
        Connection con=DriverManager.getConnection(
        "jdbc:mysql://localhost:3306/SampleDB","root","root");
        //here SampleDB is database name, root is username and password
        Statement stmt=con.createStatement();
        ResultSet rs=stmt.executeQuery("select * from Employee_TBL");
        while(rs.next())
            System.out.println(rs.getInt(1)+"  "+rs.getString(2)+"  "+rs.getS
          tring(3));
        con.close();
    }catch(Exception e){ System.out.println(e);}
  }
}
```

Sample program for java.sql.PreparedStatement

```
import java.sql.*;
class MysqlCon{
  public static void main(String args[]){
    try{
        Class.forName("com.mysql.jdbc.Driver");
        Connection
    con=DriverManager.getConnection("jdbc:mysql://localhost:3306/Samp
    leDB","root","root"); //here SampleDB is database name, root is usernam
    e and password
        String qry="insert into Employee_TBL values(?,?,?)";
        PreparedStatement ps = con.prepareStatement(qry);
        ps.setInt(1,100);
        ps.setString(2, "John");
        ps.setString(3, "john@wipro.com");
        int rec_count =ps.executeUpdate();
        if(rec_count==1)
```

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```
            {
                    System.out.println("Employee data inserted");

            }
            ps.close();
          con.close();
      }catch(Exception e){ System.out.println(e);}
    }
  }
```

Sample program for java.sql.CallableStatement

Step 1: Create procedure in **MySQL Command Line Client** tool and call it in the application using CallableStatement.

```
USE `sampledb`;
DROP procedure IF EXISTS `insert_Employee`;
DELIMITER $$
USE `sampledb`$$
CREATE PROCEDURE `insert_Employee` (in in_eid int, in in_ename
varchar(20), in in_email varchar(30))
BEGIN
    insert into employee_tbl values (in_eid, in_ename, in_email);
END$$
DELIMITER ;
```

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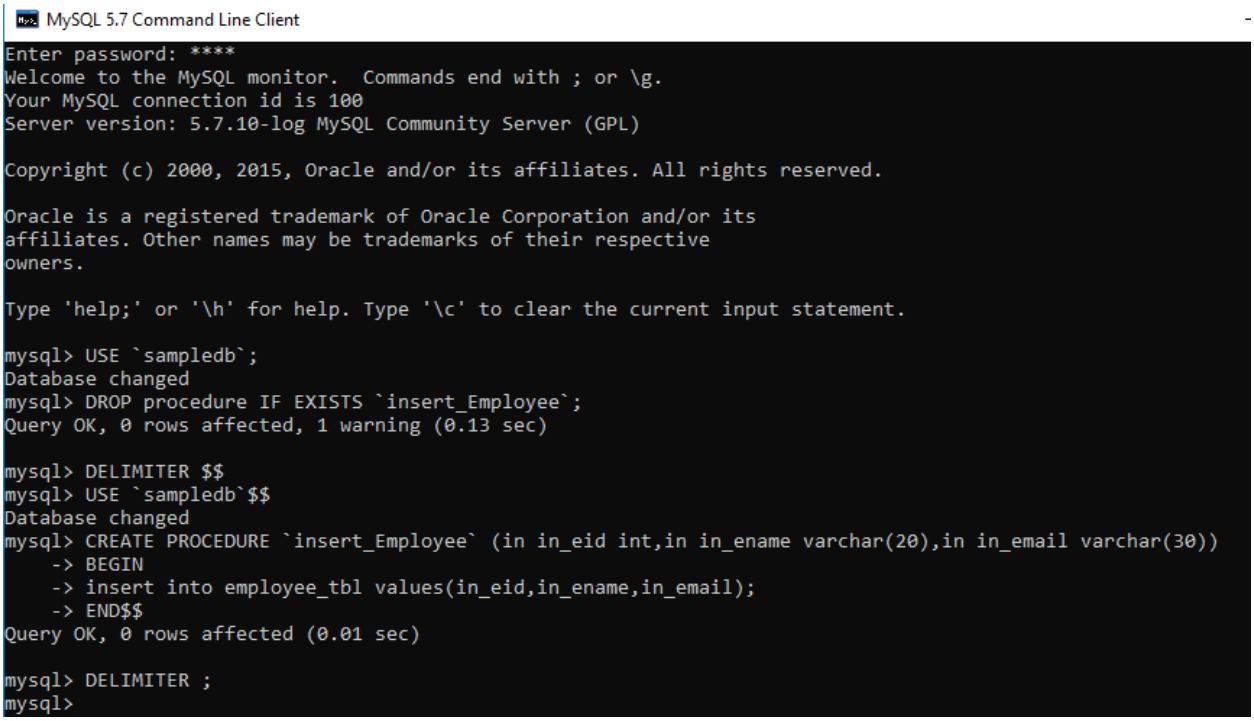


```
import java.sql.*;
class MysqlCon{
  public static void main(String args[]){
    try{
            Class.forName("com.mysql.jdbc.Driver");
            Connection con=DriverManager.getConnection(
             "jdbc:mysql://localhost:3306/SampleDB","root","root");
           //here SampleDB is database name, root is username and password
            CallableStatement cst = con.prepareCall("{call
    INSERT_EMPLOYEE(?,?,?)}");

            cst.setInt(1, 100);

            cst.setString(2, "John");

            cst.setString(3, "john@wipro.com");

            boolean issue=cst.execute();

            if(!issue)

            {

                  System.out.println("Employee data inserted");
            }
```

Sensitivity: Internal & Restricted

```
            con.close();
    }catch(Exception e){ System.out.println(e);}
  }
}
```

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