Database Connectivity In Java

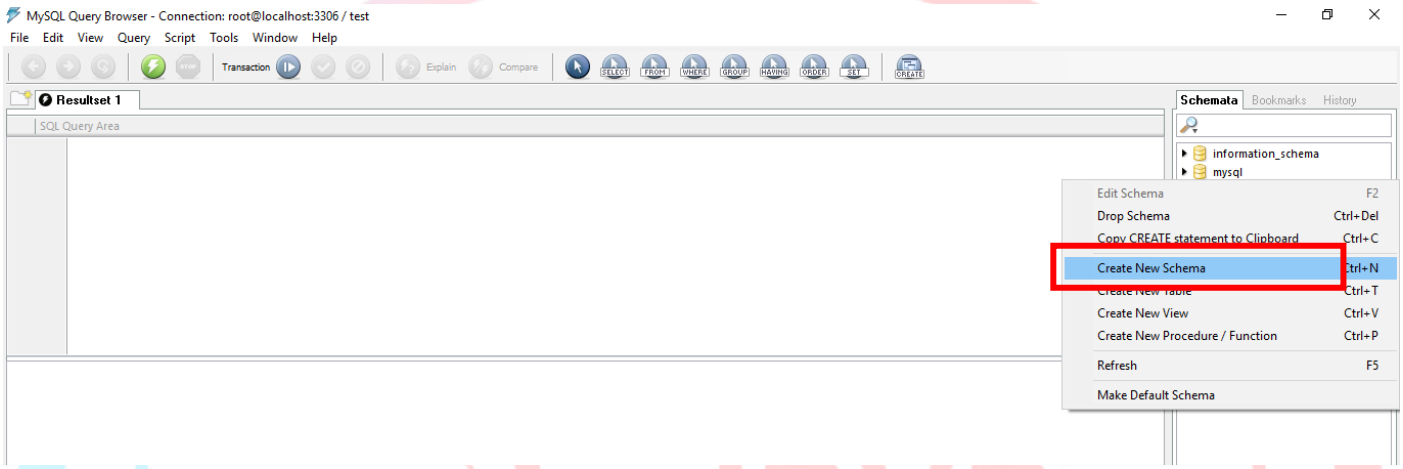
www.javabykiran.com

Database Connectivity In Java Program (JDBC)

Step 1: Install Mysql in your system (computer) [as given In earlier document]

Step 2: After opened “MysqlQueryBrowser” on right hand in “schemadata” window

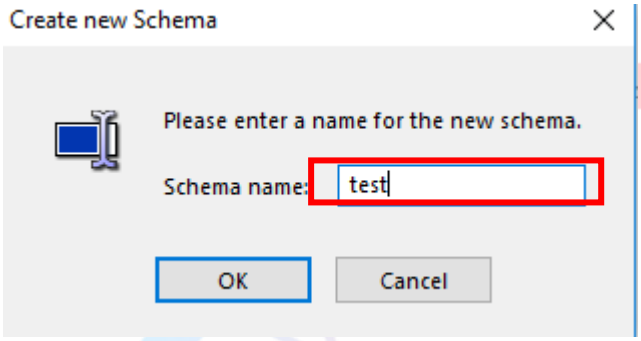
Right click → select Create New Schema



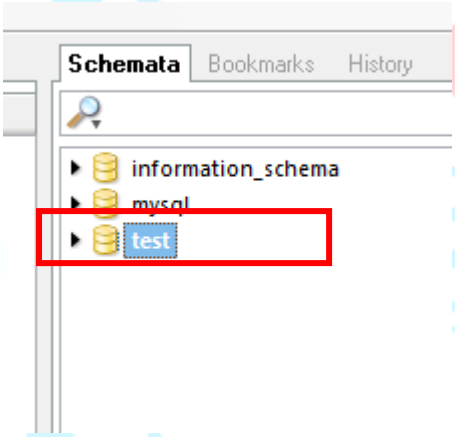
JAVA BY KIRAN
Java
JBK
ESTD 2005

After click on create new schema write schema name (database name) in below window

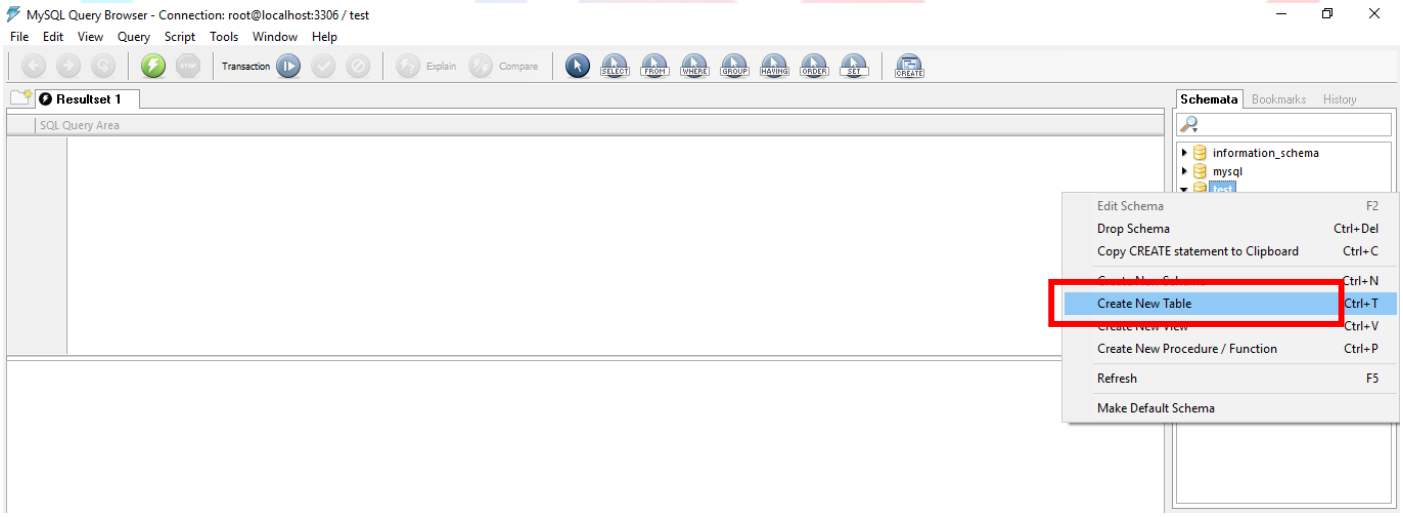
Click on “ok”



After created database select database “test” in schemadata window



Right click on schema select “Create New Table”



Fill like below window to create table and its columns

And click on “Apply Changes” button

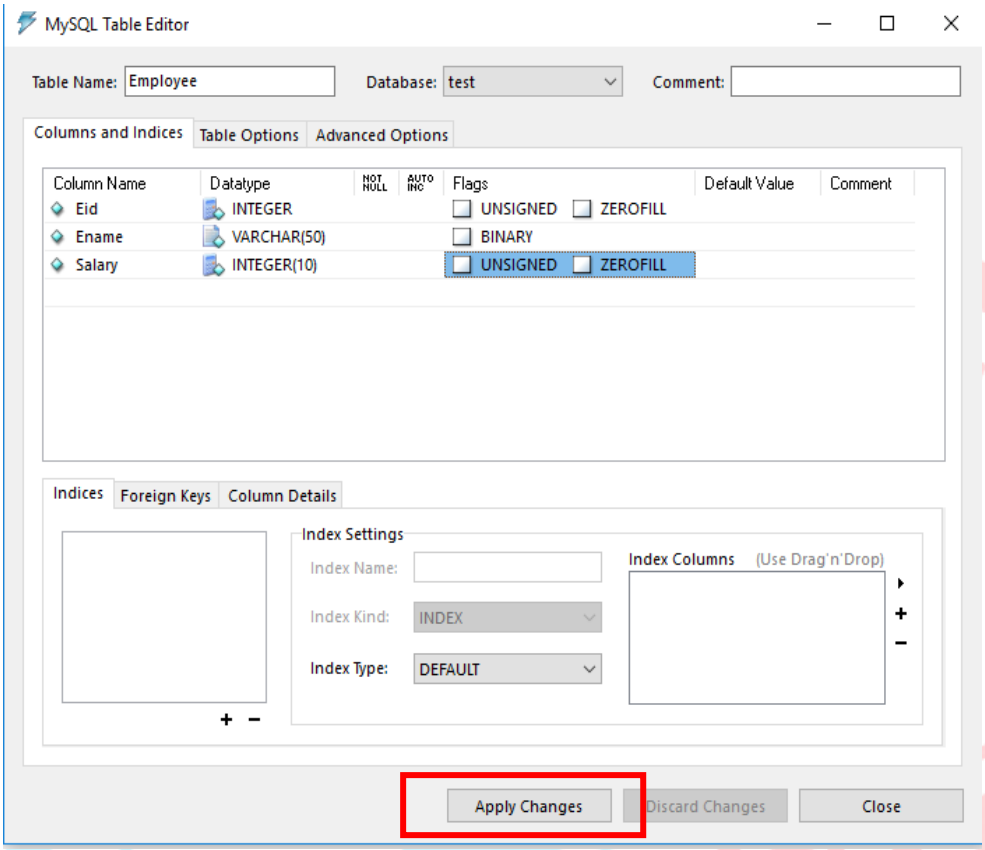
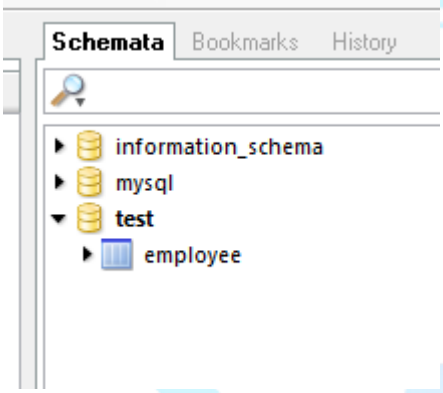


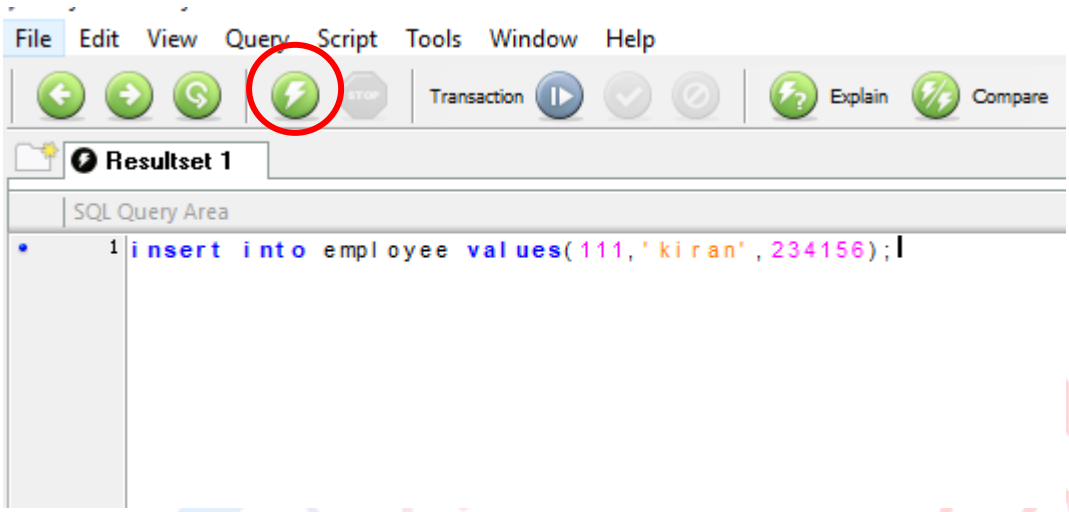
Table is created in test database (schema)



Step 4: insert values into table

Write below query in resultset window to insert value in employee table

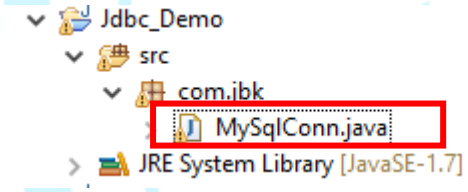
Note : database (in which table is created) should be selected while fire any queries for particular table



After writing query click on execute button shows as above

Step 5: Open eclipse and create java project and create new class in it

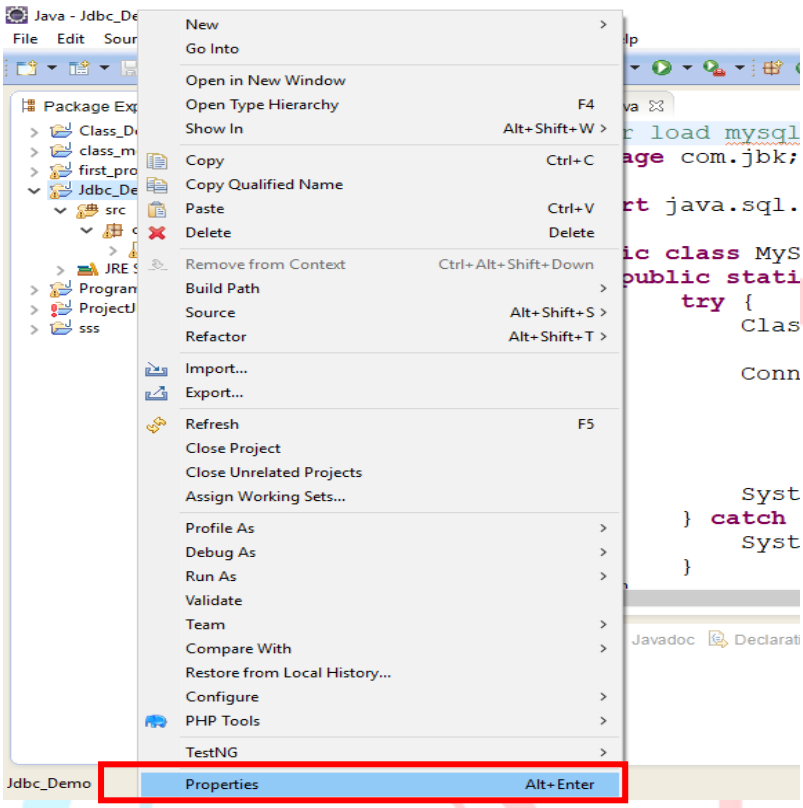
Like below



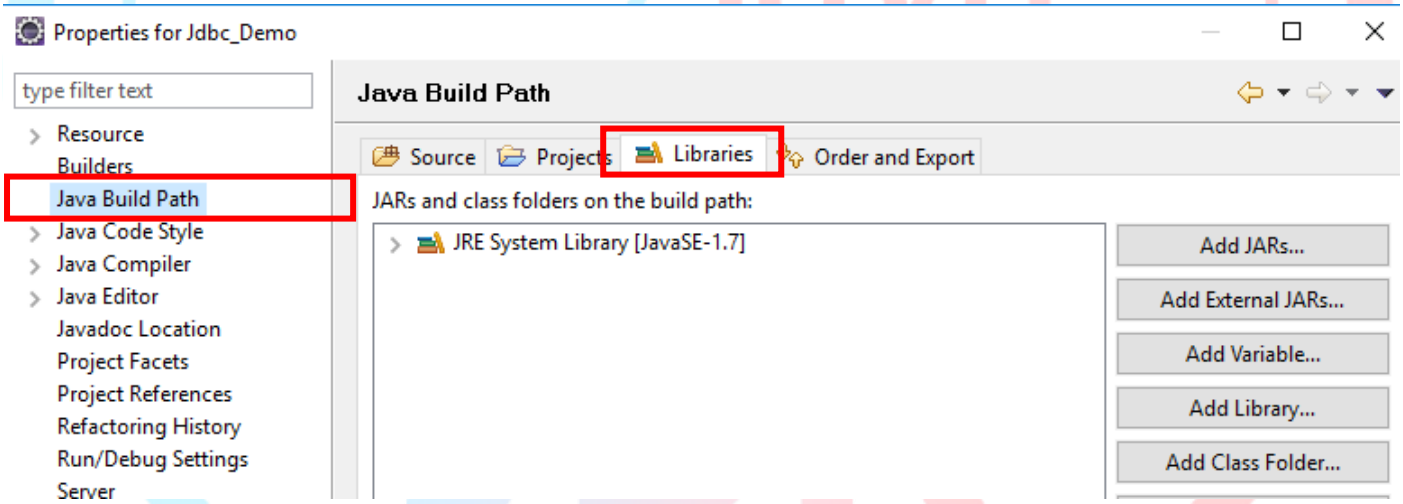
Step 6: write main method in created class

Step 7: after step 4 add “mysql.jar “ in that project.

Right click on project → properties



In properties window go to “Java Build Path” -→ Libraries tab

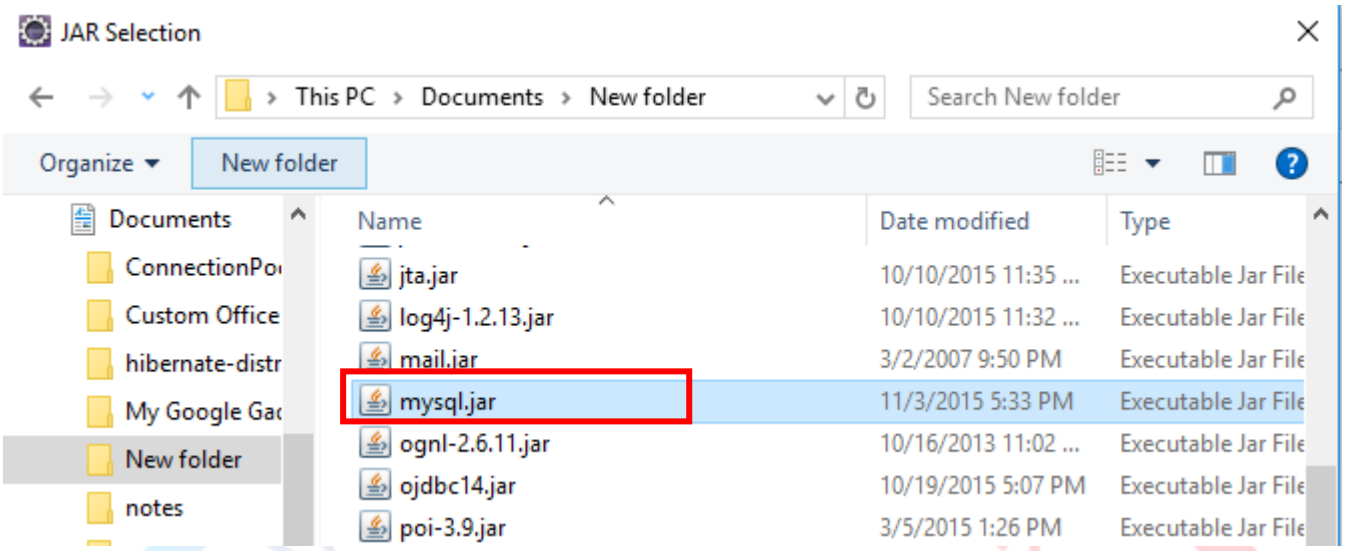


After that,

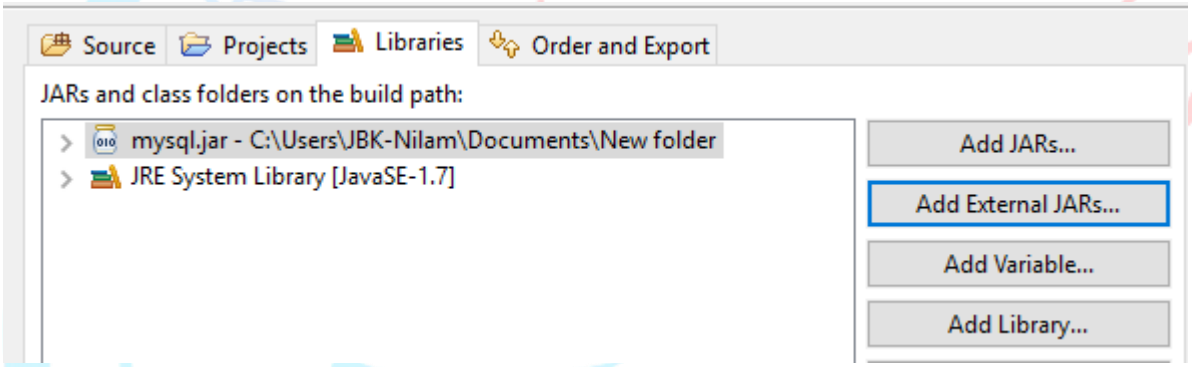
Click on “Add External JaRs”

It opens JAR Selection window brows their your system path where you save “mysql.jar”

Like below image



After select jar click on open button at bottom of window



Jar is added in your project

Step 8: Now write code for connect database with our program

Like below:

MySqlConn.java

```
1  //for load mysql class/driver you have build mysql.jar/mysqlconnector.jar
2  package com.jbk;
3
4  import java.sql.Connection;
6
7  public class MySqlConn {
8      public static void main(String args[]) {
9          try {
10             Class.forName("com.mysql.jdbc.Driver");
11
12             Connection con = DriverManager.getConnection(
13                     "jdbc:mysql://localhost:3306/test", "root", "root");
14                     //here test is a database name
15
16
17             System.out.println("Connected....");
18         } catch (Exception e) {
19             System.out.println("Error to connect mysql");
20         }
21     }
22 }
23
```

From above code

Run the program

```
Class.forName("com.mysql.jdbc.Driver");
```

this statement is used for to load mysql driver class in our java file (this is dynamic way to load class)

```
Connection con = DriverManager.getConnection(
        "jdbc:mysql://localhost:3306/test", "root", "root");
```

this another second statement is used for to build connection to mysql database with our class

Step 9: Add another code for select table data from database

Like below image

```
package com.jbk;

import java.sql.Connection;

public class SelectRecord {
    public static void main(String[] args) {
        Statement stmt = null;
        try {
            Class.forName("com.mysql.jdbc.Driver");

            Connection con = DriverManager.getConnection(
                    "jdbc:mysql://localhost:3306/test", "root", "root");
            stmt = con.createStatement();
            String sql = "SELECT * FROM employee";
            ResultSet rs = stmt.executeQuery(sql);
            while (rs.next()) {
                // Retrieve by column name
                int id = rs.getInt("Eid");
                String first = rs.getString("Ename");
                int sal = rs.getInt("salary");

                // Display values
                System.out.println("ID is : " + id  );
                System.out.println("Name is:  " + first );
                System.out.println("Salary is:  " + sal);
            }

        } catch (Exception e) {
            e.printStackTrace();
        }
    }

}
```

Run the program

We can do this same program in more standard way like below

```
package com.jbk;


import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
import java.util.ArrayList;


public class SelectRecord {
        public static void main(String[] args) {
                Statement stmt = null;
                try {
                        Class.forName("com.mysql.jdbc.Driver");
                        Connection con = DriverManager.getConnection(
```

```
                    "jdbc:mysql://localhost:3306/test", "root", "root");
            stmt = con.createStatement();
            String sql = "SELECT * FROM employee";
            ResultSet rs = stmt.executeQuery(sql);
            /*
             * while (rs.next()) { // Retrieve by column name int id =
             * rs.getInt("Eid"); String first = rs.getString("Ename"); int sal =
             * rs.getInt("salary");
             *
             * // Display values System.out.println("ID is : " + id );
             * System.out.println("Name is:  " + first );
             * System.out.println("Salary is:  " + sal); }
             */
            ArrayList<Employee> ae = new ArrayList<Employee>();
            while (rs.next()) {
                    Employee ee = new Employee();
                    ee.setEid(rs.getInt("Eid"));
                    ee.setEname(rs.getString("Ename"));
                    ee.setSalary(rs.getInt("salary"));
                    ae.add(ee);
            }
            System.out.println(ae.size());
            for (int i = 0; i < ae.size(); i++) {
                    System.out.println(ae.get(i).getEid());
                    System.out.println(ae.get(i).getEname());
                    System.out.println(ae.get(i).getSalary());
            }

    } catch (Exception e) {
            e.printStackTrace();
```

```
            }
        }

}
```


JAVA BY KIRAN
Java
JBK
ESTD 2005