Experiment-1

Objective: Design a Registration Page to register the details of student using Swing Framework in Java.

Source Code:

RegistrationPage.java:

```
import javax.swing.*;
import java.awt.*;
public class RegistrationPage extends JFrame
{
    Container c;
    JLabel lblFirstName;
    JTextField txtFirstName;
    JTextField txtLastName;
    JLabel lblLastName;
    JButton btnRegister;
    public RegistrationPage()
    {
        c=getContentPane();
        c.setLayout(new FlowLayout());

        lblFirstName=new JLabel("First Name");
        txtFirstName=new JTextField(20);

        lblLastName=new JLabel("Last Name");
        txtLastName=new JTextField(20);

        btnRegister=new JButton("Register");

        c.add(lblFirstName);
        c.add(txtFirstName);
        c.add(lblLastName);
        c.add(txtLastName);
        c.add(btnRegister);
    }
}
```

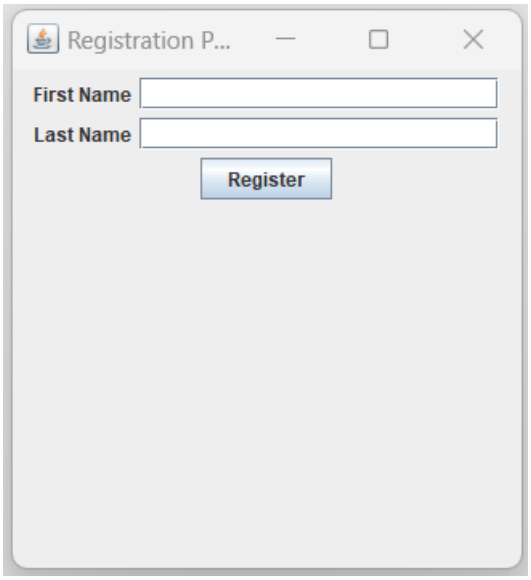
DemoRegister.java:

```
import javax.swing.*;
public class DemoRegister
{
    public static void main(String[] args)
    {
```

```
        RegistrationPage page=new RegistrationPage();
        page.setTitle("Registration Page");
        page.setSize(400,400);
        page.setVisible(true);
        page.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    }
}
```

Result:

```
PS C:\Users\khana\OneDrive\Desktop\Registration Page> javac DemoRegister.java
PS C:\Users\khana\OneDrive\Desktop\Registration Page> java DemoRegister
```



Experiment-2

Objective: Design a Registration Page to register the details of student using Swing Framework in Java. Form must have Button, Textbox, Checkbox and Radio Button, Combo box classes of Swing Framework.

Source Code:

DemoRegister.java:

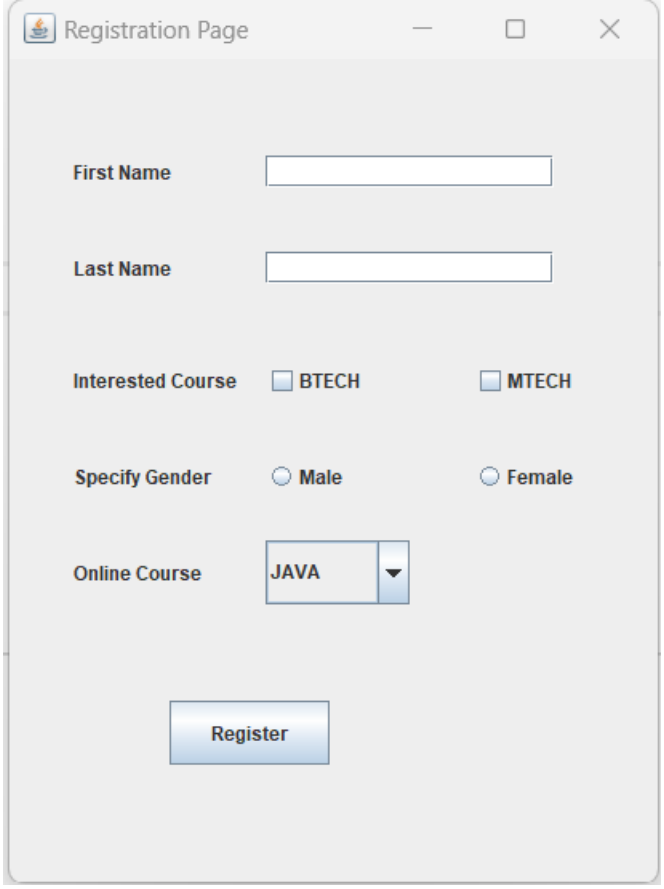
```
import javax.swing.*;
import java.awt.*;
class RegistrationPage extends JFrame{
    Container c;
    JLabel lblFN,lblLN,lblCourse,lblGender,lblOCourse;
    JTextField txtFN,txtLN;
    JButton btnRegister;
    JCheckBox c1,c2;
    JRadioButton r1,r2;
    ButtonGroup g1;
    JComboBox<String> selectCourse;
    String [] course={"JAVA", "Advance","ML",".NET"};
    public RegistrationPage(){
        c=getContentPane();

        lblFN=new JLabel("First Name");
        lblFN.setBounds(40,60,80,20);
        txtFN=new JTextField(10);
        txtFN.setBounds(160,60,180,20);
        lblLN=new JLabel("Last Name");
        lblLN.setBounds(40,120,180,20);
        txtLN=new JTextField(10);
        txtLN.setBounds(160,120,180,20);
        btnRegister=new JButton("Register");
        btnRegister.setBounds(100,400,100,40);

        lblCourse=new JLabel("Interested Course");
        lblCourse.setBounds(40,180,200,40);

        c1=new JCheckBox("BTECH");
        c1.setBounds(160,180,100,40);
        c2=new JCheckBox("MTECH");
```

```
        c2.setBounds(290,180,100,40);

        lblGender=new JLabel("Specify Gender");
        lblGender.setBounds(40,240,200,40);
        g1=new ButtonGroup();
        r1=new JRadioButton("Male");
        r1.setBounds(160,240,100,40);
        r2=new JRadioButton("Female");
        r2.setBounds(290,240,100,40);

        lblOCourse=new JLabel("Online Course");
        lblOCourse.setBounds(40,300,150,40);
        selectCourse=new JComboBox<String>(course);
        selectCourse.setBounds(160,300,90,40);
        g1.add(r1);
        g1.add(r2);
        c.add(lblFN);
        c.add(txtFN);
        c.add(lblLN);
        c.add(txtLN);
        c.add(lblCourse);
        c.add(c1);
        c.add(c2);
        c.add(lblGender);
        c.add(r1);
        c.add(r2);
        c.add(lblOCourse);
        c.add(selectCourse);
        c.add(btnRegister);


    }
}

public class DemoRegister{
    public static void main(String args[]){
        RegistrationPage p=new RegistrationPage();
        p.setTitle("Registration Page");
        p.setLayout(null);
        p.setSize(800,800);
        p.setVisible(true);
        p.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
```

```
    }
}
```

Result:

```
PS C:\Users\khana\OneDrive\Desktop\Advance Java LAB> javac DemoRegister.java
PS C:\Users\khana\OneDrive\Desktop\Advance Java LAB> java DemoRegister
```



Experiment-3

Objective: Create a Java application to store the details of the student like first name and last name into the table **userinfo** stored over to the database of MYSQL. Run the application-using Command prompt.

Source Code:

DBConnection.java:

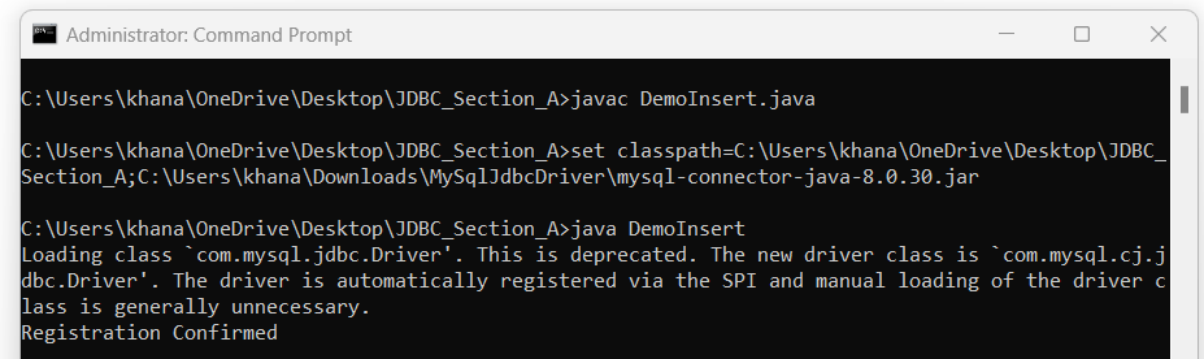
```
import java.sql.*;
public class DBConnection
{
    public static Connection getDatabaseConnection(){
        Connection con=null;
        String username="root";
        String password="root";
        String driver="com.mysql.jdbc.Driver";
        String url="jdbc:mysql://localhost:3306/mydatabase";

        //Step :1 Load and Register Driver class
        try
        {
            Class.forName(driver);
            try
            {
             con=DriverManager.getConnection(url,username,
password);
            }
            catch(SQLException e)
            {
                e.printStackTrace();
            }
        }
        catch(ClassNotFoundException e)
        {
            e.printStackTrace();
        }
        return con;
    }
}
```

DemoInsert.java:

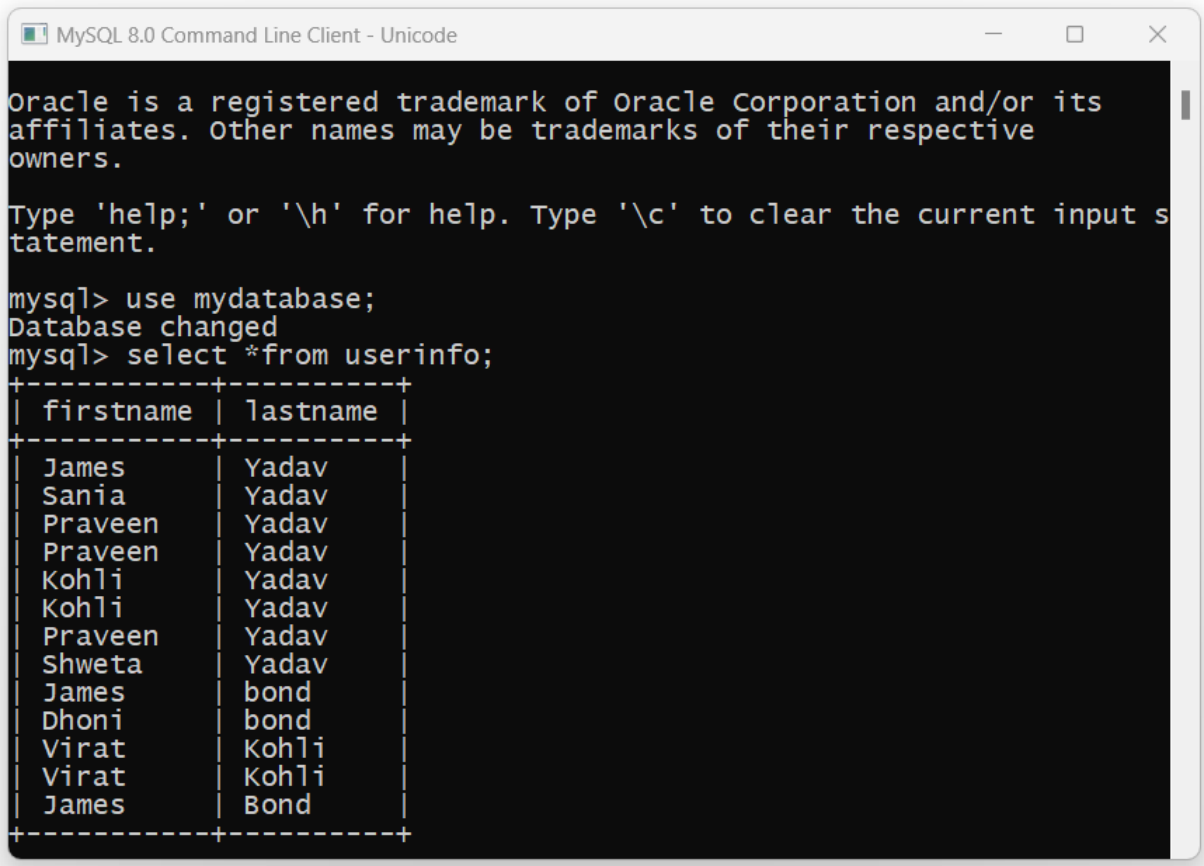
```
import java.sql.*;
public class DemoInsert{
    public static void main(String args[]){
        Connection con=null;
        Statement stmt=null;
        String firstName="James";
        String lastName="Bond";

        String sqlQuery="Insert into userinfo
values('"+firstName+"','"+lastName+"')";
        con=DBConnection.getDatabaseConnection();
        try
        {
            stmt=con.createStatement();
            int rowInserted=stmt.executeUpdate(sqlQuery);
            if(rowInserted>0)
            {
             System.out.println("Registration Confirmed");
            }
            else
            {
                System.out.println("Not Confirmed");
            }
        }
        catch(SQLException e){
            e.printStackTrace();
        }

    }
}
```

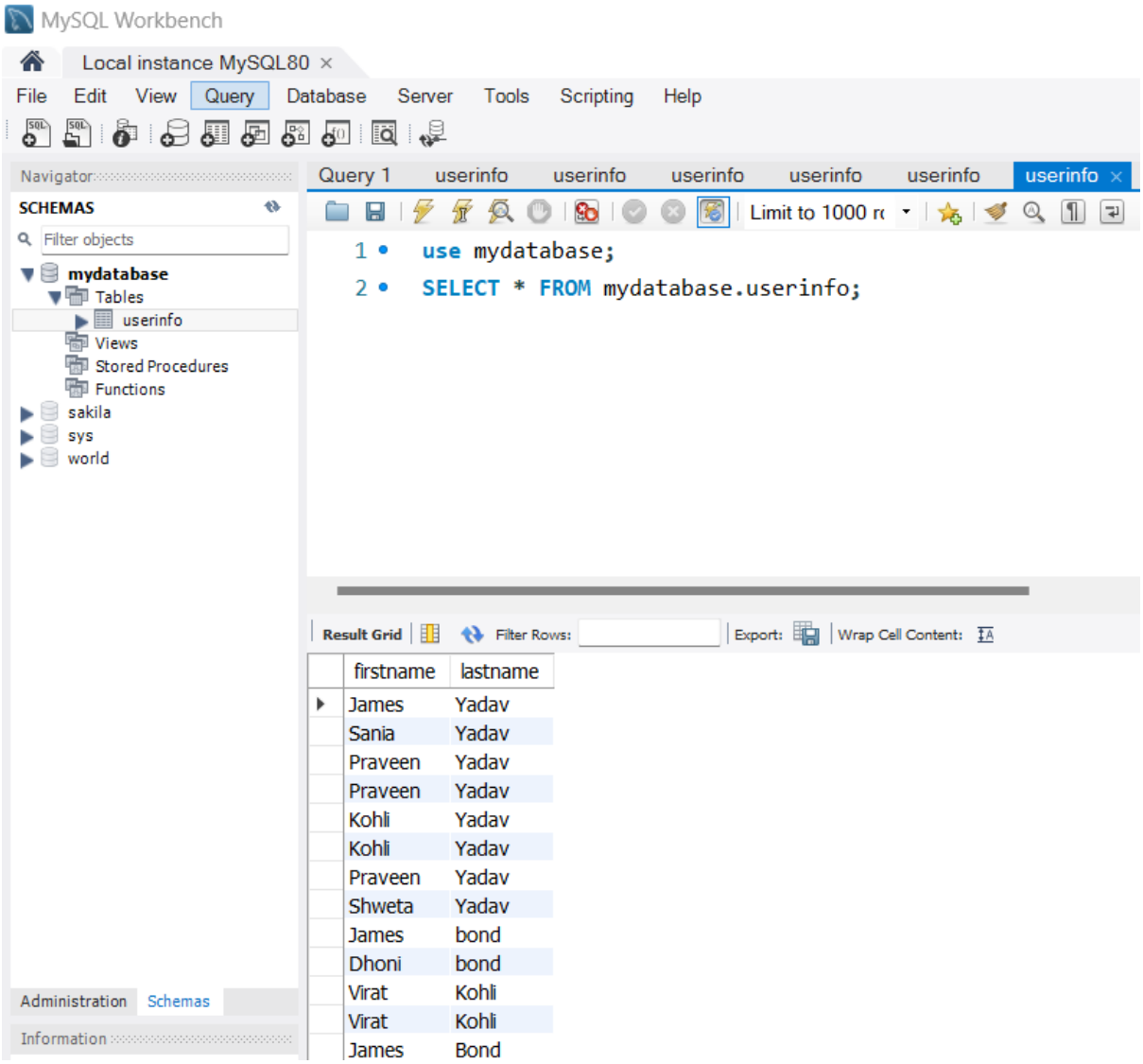
Output:

Click on cmd and Run as an administrator



Check the My SQL Command Prompt:




MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
mydatabase
Tables
userinfo
Views
Stored Procedures
Functions
sakila
sys
world
Administration Schemas
Information
Query 1 userinfo userinfo userinfo userinfo userinfo userinfo
Limit to 1000 r
1 • use mydatabase;
2 • SELECT * FROM mydatabase.userinfo;
Result Grid Filter Rows: Export: Wrap Cell Content:
firstname lastname
James Yadav
Sania Yadav
Praveen Yadav
Praveen Yadav
Kohli Yadav
Kohli Yadav
Praveen Yadav
Shweta Yadav
James bond
Dhoni bond
Virat Kohli
Virat Kohli
James Bond

Experiment-4

Objective: Create a Java application to get the details of the student like first name and last name from the table **userinfo** stored on to the database of MYSQL. Run the application using Eclipse IDE.

Source Code:

DBConnection.java:

```
import java.sql.*;
public class DBConnection{
    public static Connection getDataBaseConnection(){
        Connection con=null;
        String username="root";
        String password="root";
        String driver="com.mysql.jdbc.Driver";
        String
url="jdbc:mysql://localhost:3306/mydatabase";

        //Step 1: Load the Driver class
        try
        {
            Class.forName(driver);
            try{
con=DriverManager.getConnection(url,username,password
);
            }
            catch(SQLException e){
                e.printStackTrace();
            }
        }
        catch(ClassNotFoundException e){
            e.printStackTrace();
        }
        return con;
    }
}
```

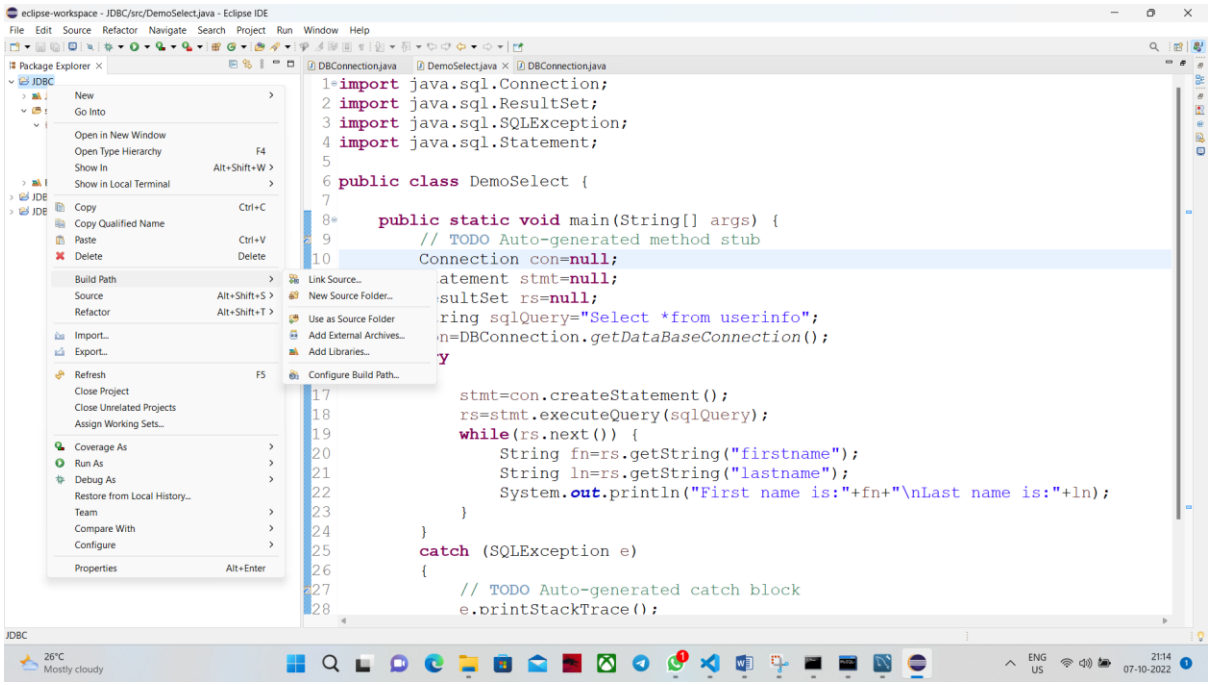
DemoSelect.java:

```
import java.sql.Connection;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

public class DemoSelect {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Connection con=null;
		Statement stmt=null;
		ResultSet rs=null;
		String sqlQuery="Select *from userinfo";
		con=DBConnection.getDataBaseConnection();
		try
		{
			stmt=con.createStatement();
			rs=stmt.executeQuery(sqlQuery);
			while(rs.next()) {
				String fn=rs.getString("firstname");
				String ln=rs.getString("lastname");
				System.out.println("First name
is:"+fn+"\nLast name is:"+ln);
			}
		}
		catch (SQLException e)
		{
			// TODO Auto-generated catch block
			e.printStackTrace();
		}
	}
}
```

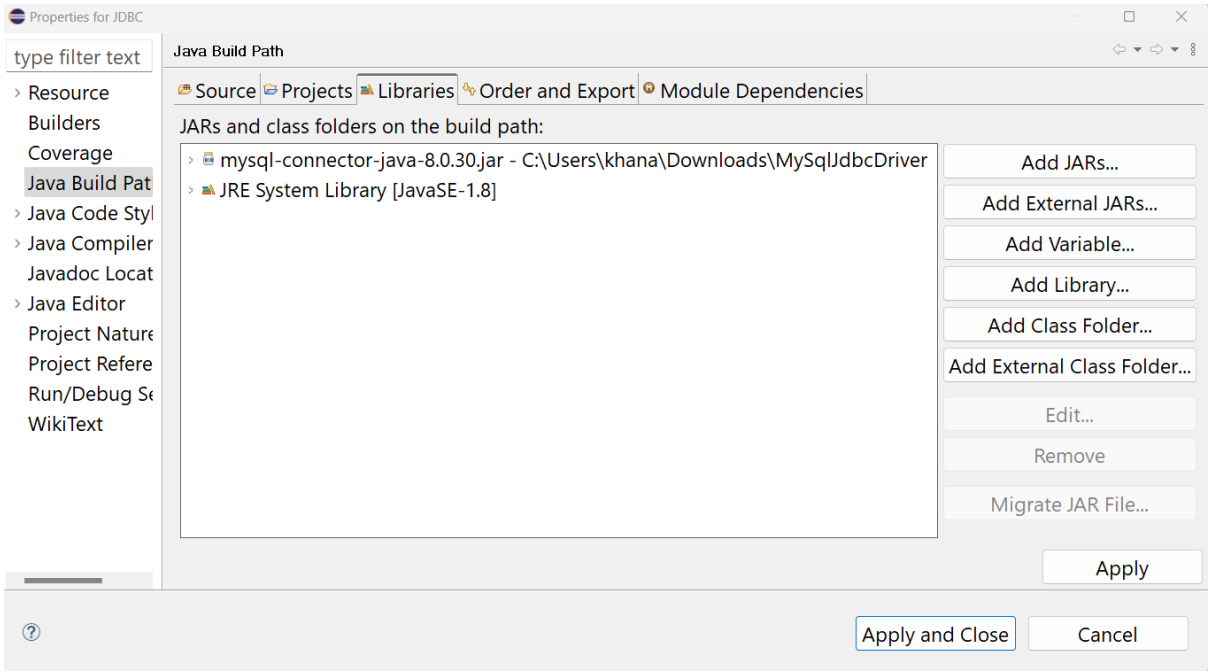
Set the class path on eclipse by using following path:

Then provide the path of the mysql jar file. Consider the following snapshot.

Right click on the project→ Select Buildpath → Then Configure Buildpath:



Following window opens then select the tab Libraries → Click on **add external jar button at right side.**



Then provide the path of the MySQL jar file. Then Click on apply and close.

Result: