

Practical – 1

Practical 1.A

Aim: Create a simple calculator application using servlet.

Code:

index.html

```
<html>
<head><title>Calculator App</title></head><body>
<form action="CalculatorServlet" >
  Enter First Number <input type="text" name="txtN1" ><br>
  <select name="op">
    <option value="+ "> + </option>
    <option value="- "> - </option>
    <option value="*" "> * </option>
    <option value="/" "> / </option>
  </select><br>
  Enter Second Number <input type="text" name="txtN2" ><br>
  <input type="reset">
  <input type="submit" value="Calculate" >
</form></body>
</html>
```

CalculatorServlet.java

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

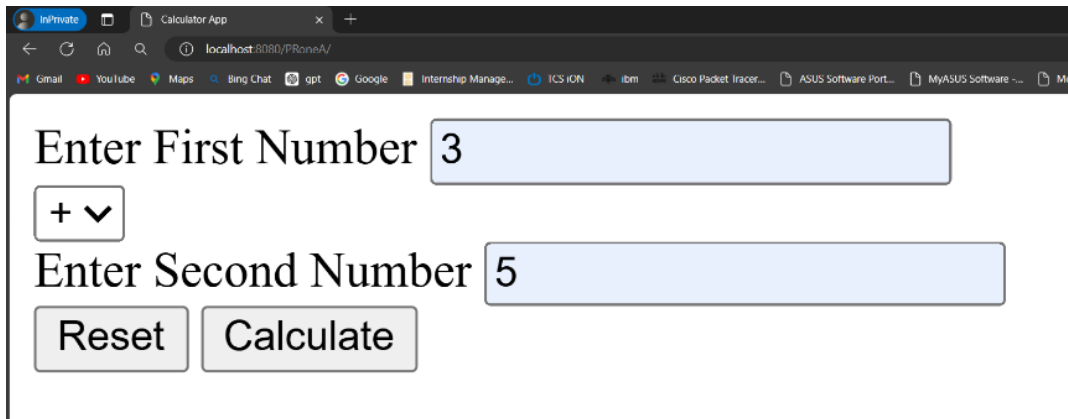
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    response.setContentType("text/html;charset=UTF-8");
    PrintWriter pw = response.getWriter();

    int n1 = Integer.parseInt(request.getParameter("txtN1"));
    int n2 = Integer.parseInt(request.getParameter("txtN2"));

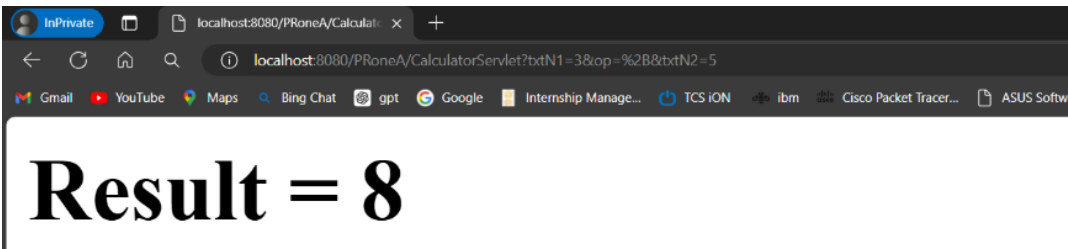
    int result =0;
    String opr=request.getParameter("op");
    if(opr.equals("+")) result=n1+n2;
```

```
if(opr.equals("-")) result=n1-n2;  
if(opr.equals("*")) result=n1*n2;  
if(opr.equals("/")) result=n1/n2;  
pw.println("<h1> Result = "+result);  
pw.println("</body></html>");  
}
```

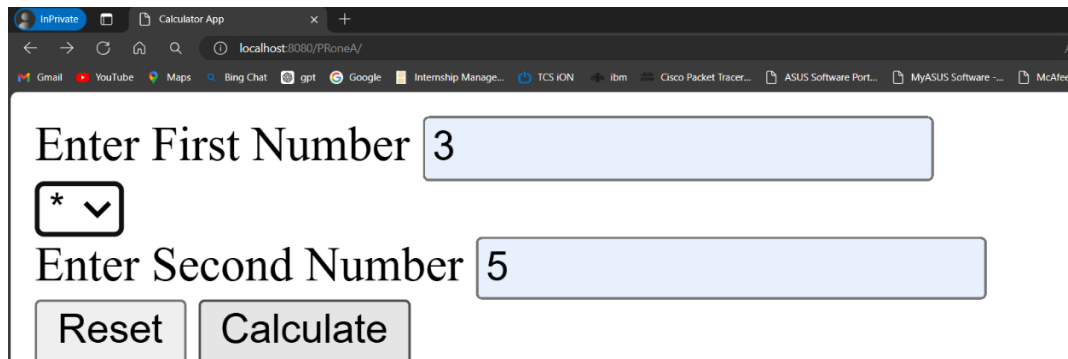
Output:



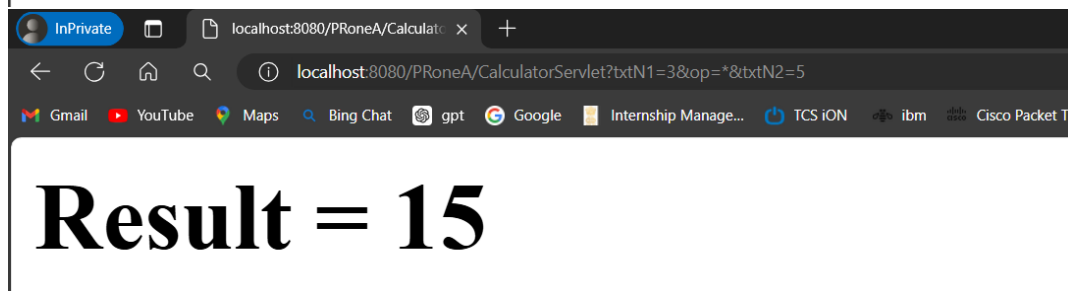
The screenshot shows a web browser window with the address bar displaying 'localhost:8080/ProneA/'. The page content includes two input fields for numbers, a dropdown menu for operators, and two buttons labeled 'Reset' and 'Calculate'. The first input field contains the number '3', the second contains '5', and the operator dropdown is set to '+'. The browser's tab is titled 'Calculator App'.



The screenshot shows the same web browser window, but the page content now displays 'Result = 8' in a large, bold font. The browser's address bar shows the URL 'localhost:8080/ProneA/CalculatorServlet?txtN1=3&op=%2B&txtN2=5'. The browser's tab is titled 'localhost:8080/ProneA/Calculat...'.



The screenshot shows the same web browser window, but the operator dropdown is now set to '*'. The input fields still contain '3' and '5', and the 'Reset' and 'Calculate' buttons are visible. The browser's tab is titled 'Calculator App'.



The screenshot shows the same web browser window, but the page content now displays 'Result = 15' in a large, bold font. The browser's address bar shows the URL 'localhost:8080/ProneA/CalculatorServlet?txtN1=3&op=*&txtN2=5'. The browser's tab is titled 'localhost:8080/ProneA/Calculat...'.

Practical 1.B

Aim: Create a servlet for a login page. If the username and password are correct then it says message "Hello" else a message "login failed"

Code:

index.html

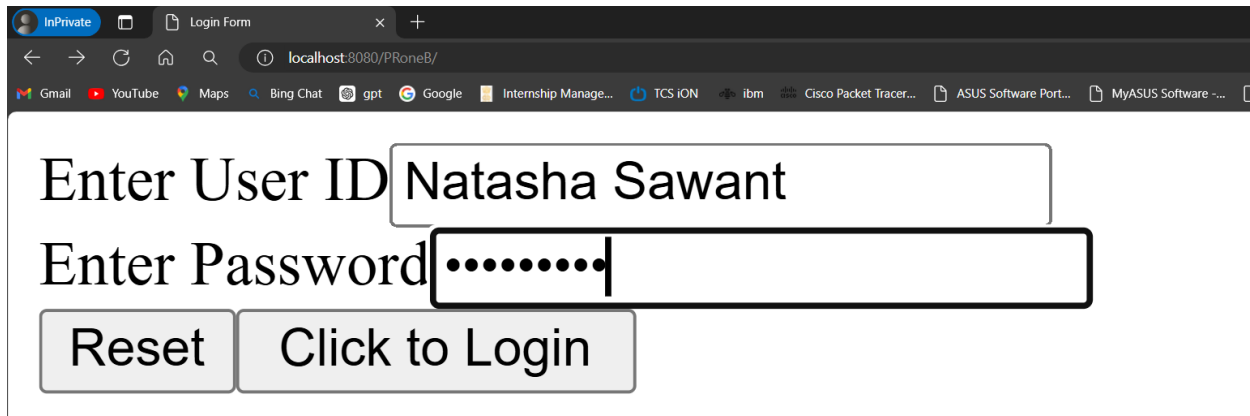
```
<html><head><title>Login Form</title></head>
<form action="LoginServlet" >
Enter User ID<input type="text" name="txtId"><br>
Enter Password<input type="password" name="txtPass"><br>
<input type="reset"><input type="submit" value=" Click to Login " >
</form>
</html>
```

LoginServlet.java

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

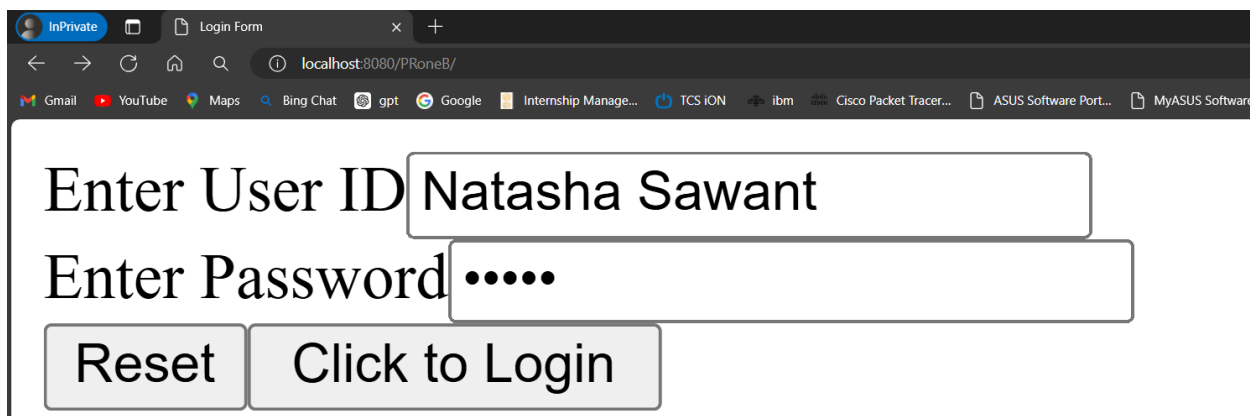
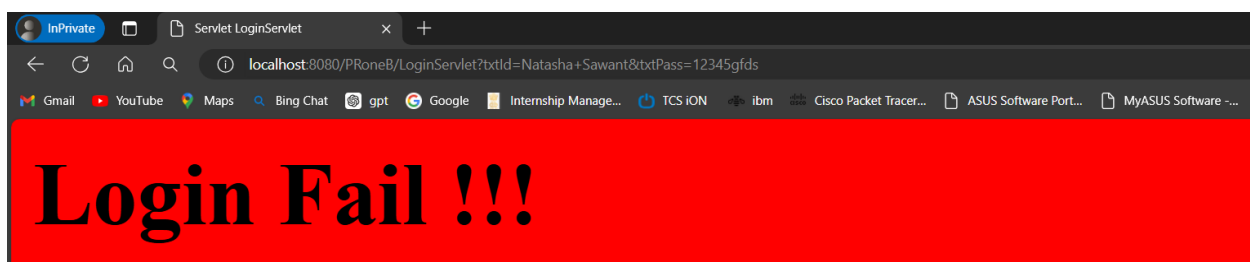
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    response.setContentType("text/html;charset=UTF-8");
    PrintWriter out = response.getWriter();
    out.println("<html><head><title>Servlet LoginServlet</title></head>");
    String uname = request.getParameter("txtId");
    String upass = request.getParameter("txtPass");
    if(uname.equals("Natasha Sawant") && upass.equals("12345")){
        out.println("<body bgcolor=white >");
        out.println("<h1> Welcome , " +uname+" !!!</h1>");
    }
    else{
        out.println("<body bgcolor=red >");out.println("<h1> Login Fail !!! </h1>");
    }
    out.println("</body></html>");}
```

Output:



Enter User ID

Enter Password



Enter User ID

Enter Password



Practical 1.C

Aim: Create a registration servlet in Java using JDBC. Accept the details such as Username, Password, Email, and Country from the user using HTML Form and store the registration details in the database.

Code:

index.html

```
<html><head><title>Registration Page</title></head>
<body>
<form action="RegisterServlet" >
<H1>Welcome to Registration page</H1>
Enter User Name <input type="text" name="txtUid"><br>
Enter Password <input type="password" name="txtPass"><br>
Enter Email <input type="text" name="txtEmail" ><br>
Enter Country <input type="text" name="txtCon" ><br>
<input type="reset" ><input type="submit" value="REGISTER" >
</form>
</body>
```

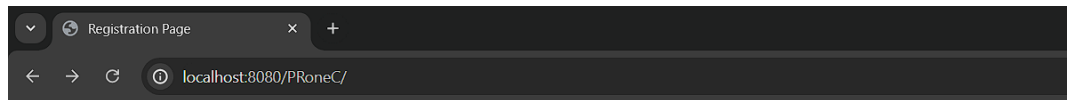
RegisterServlet.java

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.sql.*;

protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {response.setContentType("text/html;charset=UTF-
8");
PrintWriter out = response.getWriter();
String id = request.getParameter("txtUid");
String ps = request.getParameter("txtPass");
String em = request.getParameter("txtEmail");
String co = request.getParameter("txtCon");
try{
Class.forName("com.mysql.jdbc.Driver");
Connection con
=DriverManager.getConnection("jdbc:mysql://localhost:3306/natasha","root","root");
PreparedStatement pst = con.prepareStatement("insert into user values(?,?,?,?)");
pst.setString(1,id);
pst.setString(2,ps);
pst.setString(3,em);
```

```
pst.setString(4,co);
int row = pst.executeUpdate();
out.println("<h1>"+row+ " Inserted Succesfullyyyyy");
}catch(Exception e){out.println(e);}
}
```

Output:



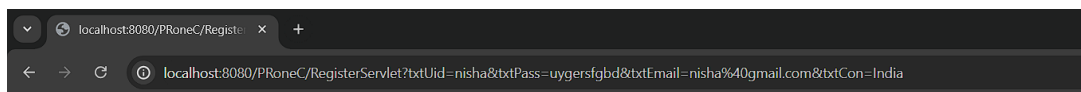
Welcome to Registration page

Enter User Name

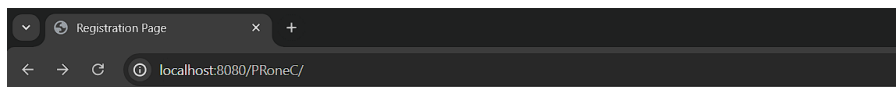
Enter Password

Enter Email

Enter Country



1 Inserted Succesfullyyyyy



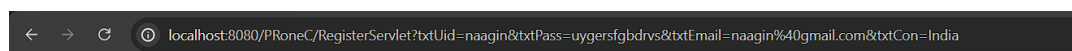
Welcome to Registration page

Enter User Name

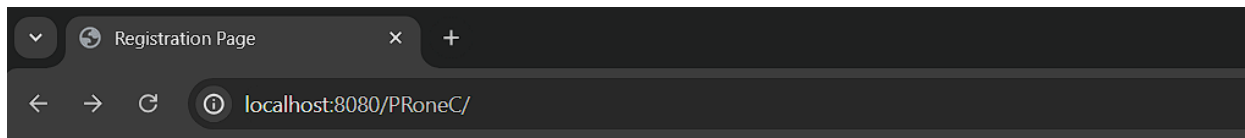
Enter Password

Enter Email

Enter Country



1 Inserted Succesfullyyyyy



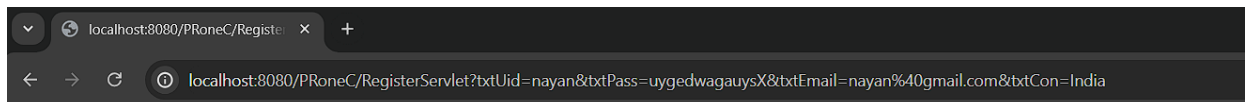
Welcome to Registration page

Enter User Name

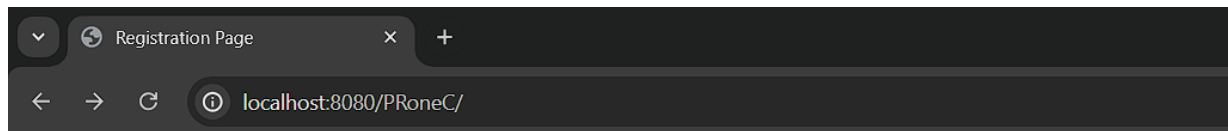
Enter Password

Enter Email

Enter Country



1 Inserted Succesfullyyyyyy



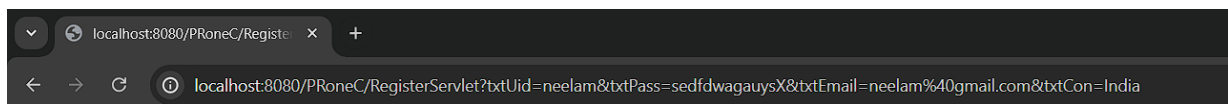
Welcome to Registration page

Enter User Name

Enter Password

Enter Email

Enter Country



1 Inserted Succesfullyyyyyy



```
mysql> create database natasha;  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> use natasha;  
Database changed
```

```
mysql> create table user  
-> (  
-> username varchar(20),  
-> password varchar(20),  
-> email varchar(20),  
-> country varchar(20)  
-> );  
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> show tables;  
+-----+  
| Tables_in_natasha |  
+-----+  
| user               |  
+-----+  
1 row in set (0.00 sec)
```

```
mysql> desc user;  
+-----+-----+-----+-----+-----+-----+  
| Field      | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| username   | varchar(20)   | YES  |     | NULL    |       |  
| password   | varchar(20)   | YES  |     | NULL    |       |  
| email      | varchar(20)   | YES  |     | NULL    |       |  
| country    | varchar(20)   | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.00 sec)
```

```
mysql> select * from user;  
+-----+-----+-----+-----+  
| username | password | email          | country |  
+-----+-----+-----+-----+  
| nisha    | uygersfgbd | nisha@gmail.com | India   |  
+-----+-----+-----+-----+  
1 row in set (0.00 sec)
```

```
mysql> select * from user;  
+-----+-----+-----+-----+  
| username | password | email          | country |  
+-----+-----+-----+-----+  
| nisha    | uygersfgbd | nisha@gmail.com | India   |  
| naagin   | uygersfgbdrvs | naagin@gmail.com | India   |  
+-----+-----+-----+-----+  
2 rows in set (0.00 sec)
```

```
mysql> select * from user;  
+-----+-----+-----+-----+  
| username | password | email          | country |  
+-----+-----+-----+-----+  
| nisha    | uygersfgbd | nisha@gmail.com | India   |  
| naagin   | uygersfgbdrvs | naagin@gmail.com | India   |  
| nayan    | uygedwagauysX | nayan@gmail.com | India   |  
+-----+-----+-----+-----+  
3 rows in set (0.00 sec)
```

```
mysql> select * from user;  
+-----+-----+-----+-----+  
| username | password | email          | country |  
+-----+-----+-----+-----+  
| nisha    | uygersfgbd | nisha@gmail.com | India   |  
| naagin   | uygersfgbdrvs | naagin@gmail.com | India   |  
| nayan    | uygedwagauysX | nayan@gmail.com | India   |  
| neelam   | sedfdwagauysX | neelam@gmail.com | India   |  
+-----+-----+-----+-----+  
4 rows in set (0.00 sec)
```