**Create Form Data using Java Servlet**

**New Servlet1.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;

@WebServlet(name="NewServlet1",urlPatterns = {"/NewServlet1"})

public class NewServlet1 extends HttpServlet

{

protected void processRequest(HttpServletRequest request, HttpServletResponse response)throws ServletException, IOException

{

response.setContentType("text/html;charset=UTF-8");

try(PrintWriter out= response.getWriter())

{

String name=request.getParameter("t1");

String password=request.getParameter("p1");

if(name.equals("M.Sc.")&&password.equals("123"))

out.println("<h1>"+"Welcome!!!First Year"+ name + "Computer Science"+"</h1>");

else

out.println("<h1>"+"Sorry wrong username or password"+"</h1>");

}

finally

{

System.out.close();

}

} }

**newhtml3.html**

<!DOCTYPE html>

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<form action="NewServlet1" method="GET">

UserName:<input type="text" name="t1"><br><br>

Password:<input type="password" name="p1"><br><br>

<input type="Submit" value="login">

</form>

</body>

</html>

**newXMLDocument1.xml**

<root>

<web\_app>

<servlet>

<servlet\_name>NewServlet1</servlet\_name>

<servlet\_class>NewServlet1</servlet\_class>

</servlet>

<servlet\_mapping>

<servlet\_name>NewServlet1</servlet\_name>

<url\_pattern>NewServlet1</url\_pattern>

</servlet\_mapping>

<welcome\_file\_list>

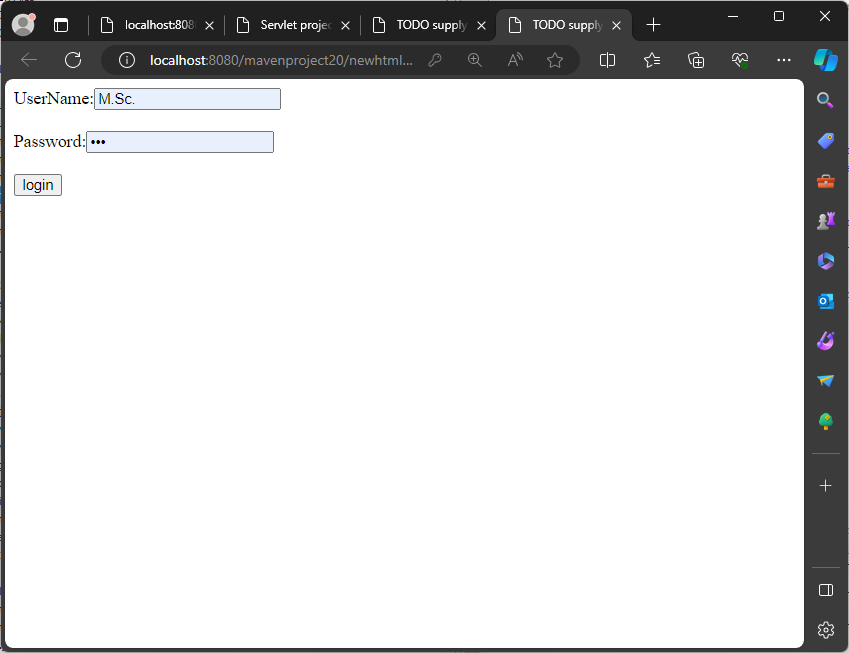
<welcome\_file>newhtml3</welcome\_file>

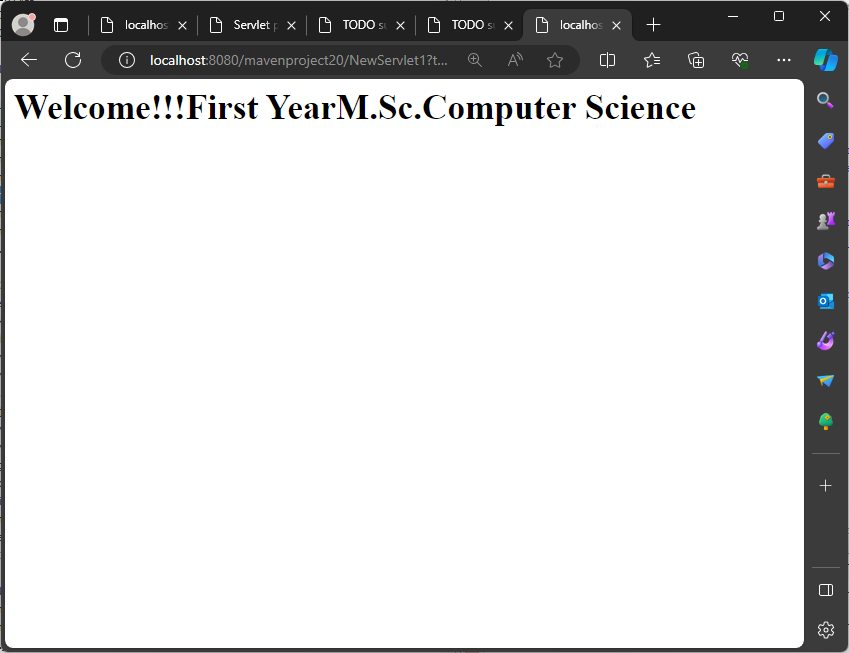
</welcome\_file\_list>

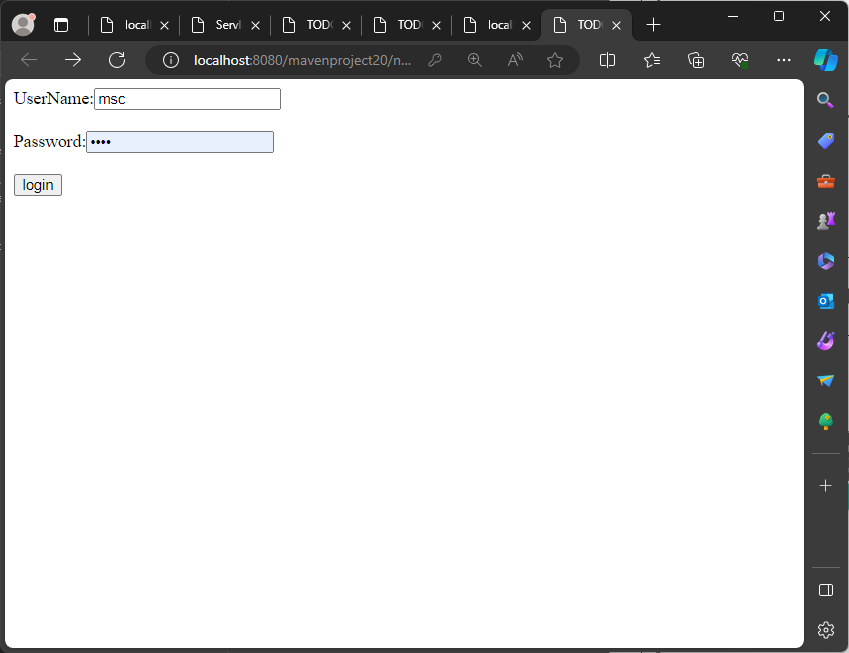
</web\_app>

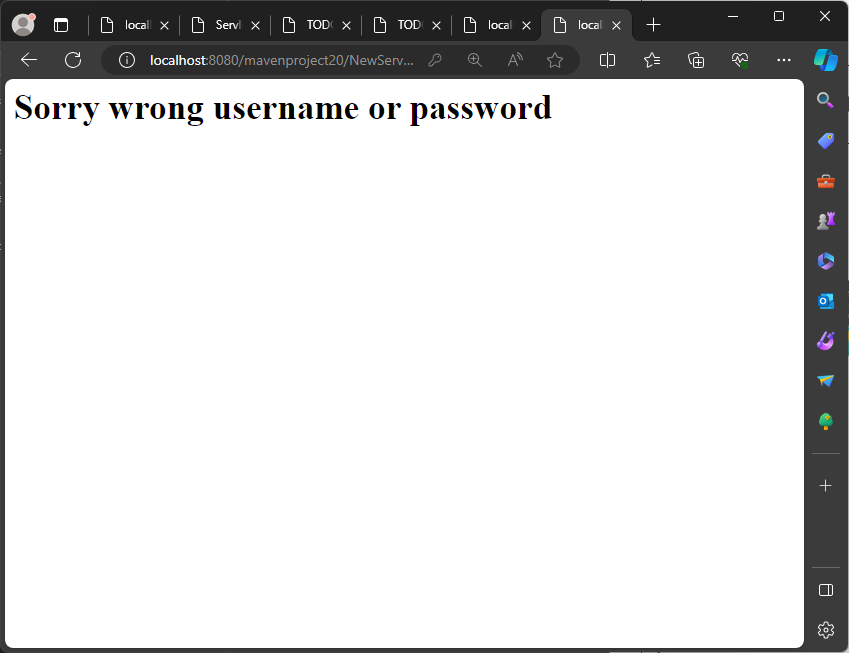
</root>

**Output:**









**Display a Welcome Message using Servlet**

**NewServlet.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;

@WebServlet(name="NewServlet",urlPatterns = {"/NewServlet"})

public class NewServlet extends HttpServlet {

protected void processRequest(HttpServletRequest request, HttpServletResponse response)throws ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

try(PrintWriter out= response.getWriter()){

out.println("<html>");

out.println("<head>");

out.println("<title>Servlet NewServlet</title>");

out.println("</head>");

out.println("<body>");

out.println("<h1>Hello World!!!Welcome to servlet lab"+"</h1>");

out.println("</body>");

out.println("</html>");

}

finally

{

System.out.close();

}

} }

**newhtml.html**

<!DOCTYPE html>

<html>

<head>

<title></title>

<meta http-equiv= "Content-Type" content="text/html; charset=UTF-8">

</head>

<body>

<h1>To envoke servlet<a href="project1">click here</a></h1>

</body>

</html>

**newXMLDocument.xml**

<root>

<web\_app>

<servlet>

<servlet\_name>NewServlet</servlet\_name>

<servlet\_class>NewServlet</servlet\_class>

</servlet>

<servlet\_mapping>

<servlet\_name>NewServlet</servlet\_name>

<url\_pattern>NewServlet</url\_pattern>

</servlet\_mapping>

<welcome\_file\_list>

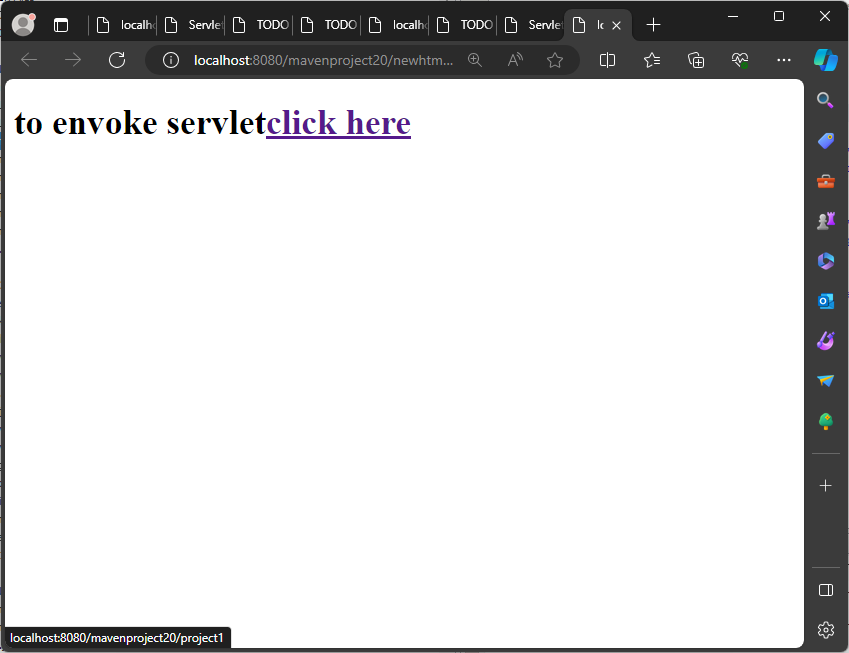
<welcome\_file>newhtml</welcome\_file>

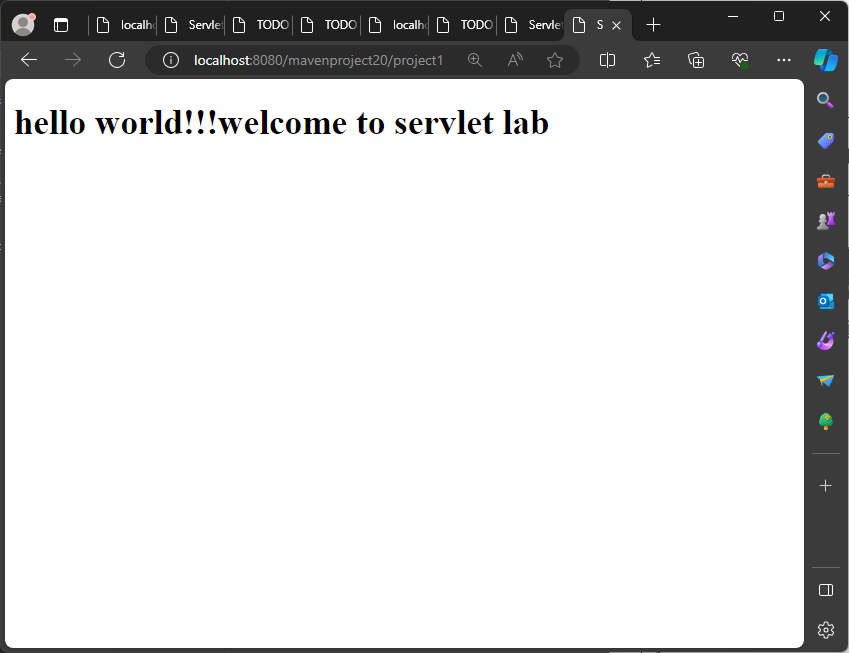
</welcome\_file\_list>

</web\_app>

</root>

**Output:**





**Employee Pay Slip using JSP**

**newjsp.jsp**

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

<title>JSP Page</title>

</head>

<body>

<h1>Hello World!</h1>

<%

String ename= request.getParameter("username");

int bs=Integer.parseInt(request.getParameter("sal"));

if(bs>=10000)

{

double da=bs\*0.3;

double hra=bs\*0.4;

double gs=bs+da+hra;

out.println("<h1>Employee Pay Slip</h1>");

out.println("<br><h2> Employee Name : "+ename);

out.println("<br><h2>Basic Pay : "+bs);

out.println("<br><h2>DA : "+da);

out.println("<br><h2>HRA : "+hra);

out.println("<br> <h2> Gross Salary: "+gs);

}

else

{

response.sendRedirect("newhtml1.html");

}

%>

</body>

</html>

**newhtml1.html**

<!DOCTYPE html>

<html>

<head>

<title>Employee Salary Information</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width">

</head>

<body>

<form action="newjsp.jsp" method="GET">

Enter Employee Name : <input type="text" name="username" size="50" />

<br >

<br><br>

Enter Basic Salary : <input type="number" name="sal" size="20" />

<br>

<br><br>

<input type="submit" value="Submit" />

</form>

</body>

</html>

**newhtml2.html**

<!DOCTYPE html>

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

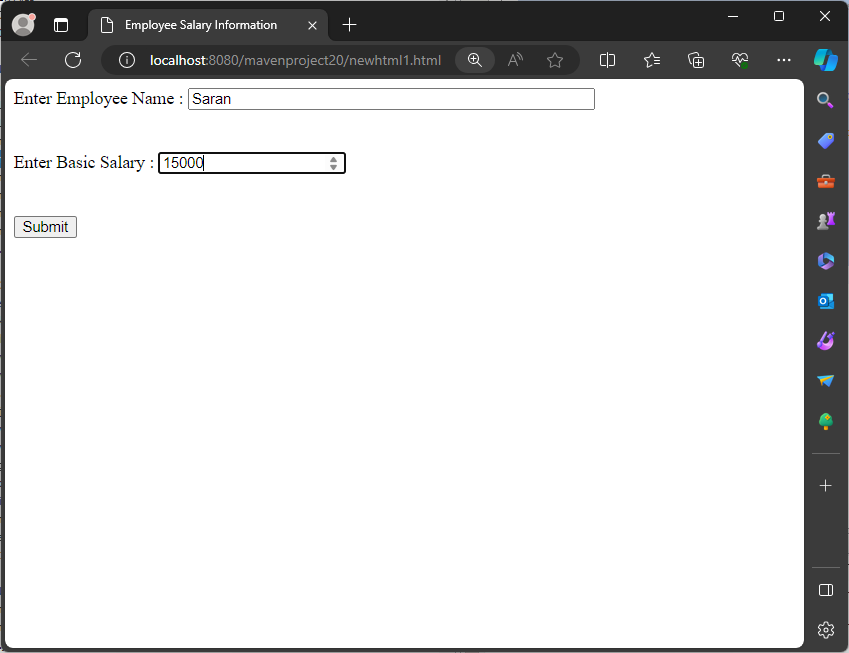
<h1> Error Found</h1>

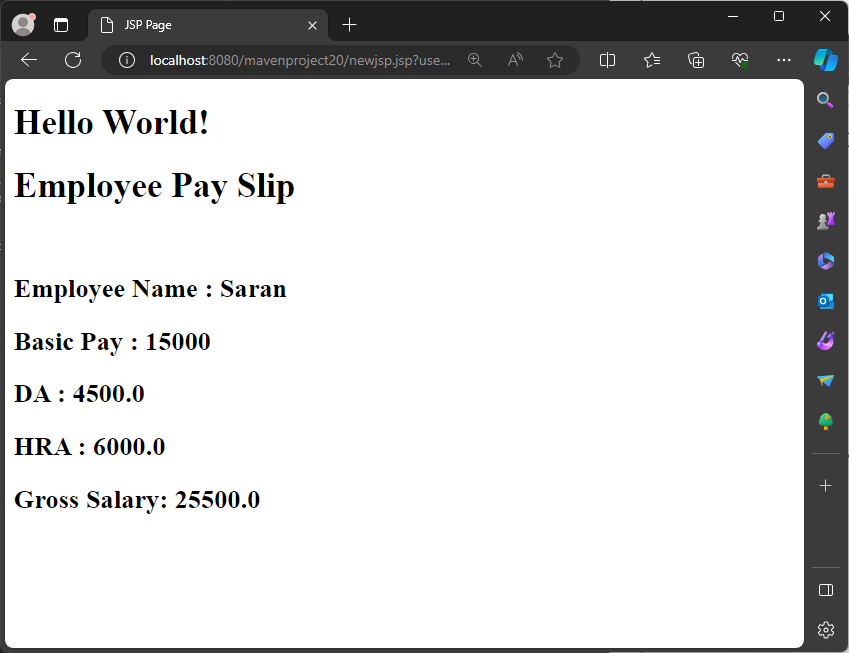
<h2>error due to salary less than 10000</h2>

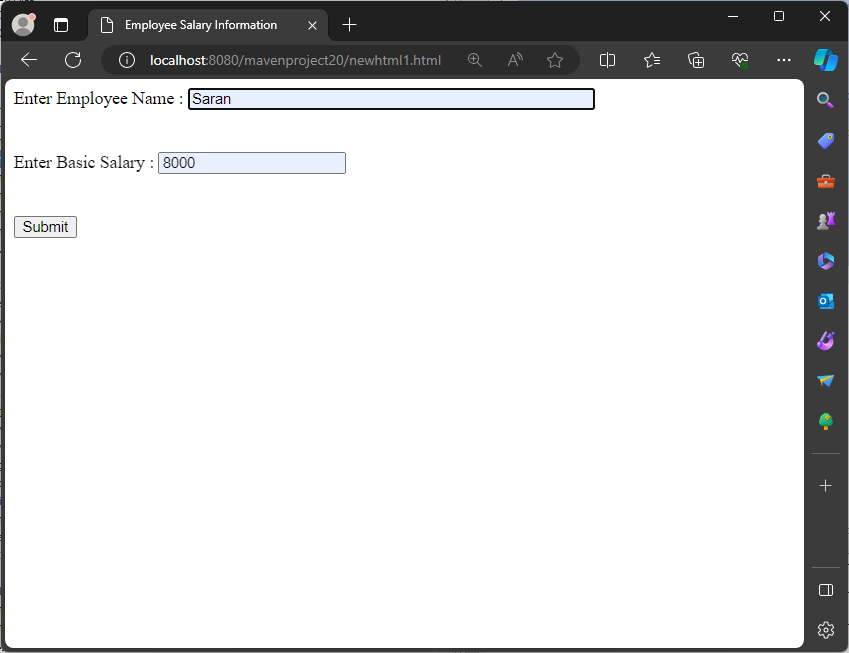
</body>

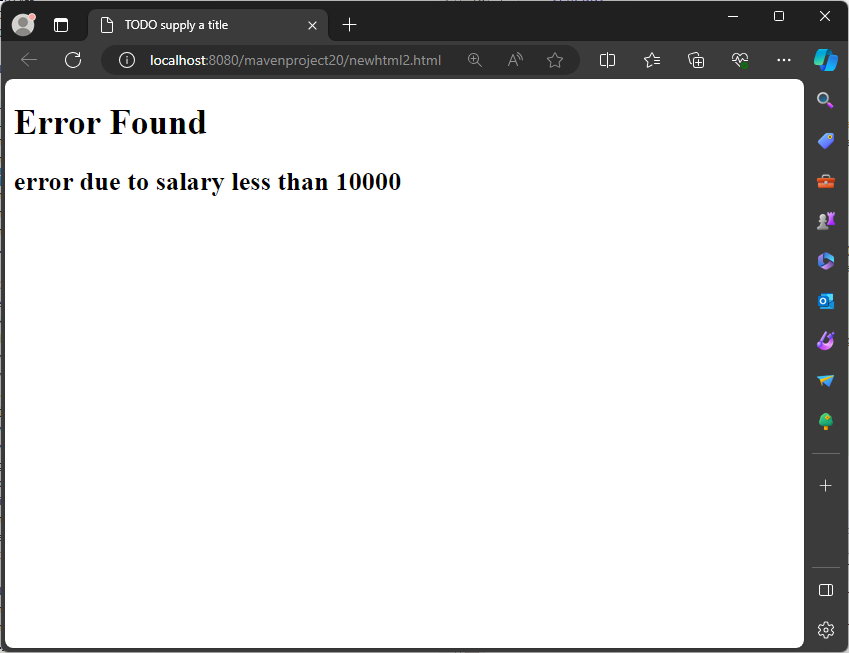
</html>

**Output:**









**Database Access-Using JDBC**

import java.sql.\*;

public class student

{

public static void main(String[] args)

{

try

{

Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");

Connection con=DriverManager.getConnection("jdbc:odbc:ss","","");

Statement s=con.createStatement();

s.execute("create table table1(regno integer,name varchar(20),oops number,java number,maths number)");

System.out.println("Table created");

s.execute("insert into table1 values(111,'Adhira',67,78,50)");

s.execute("insert into table1 values(222,'Robert',80,70,60)");

s.execute("insert into table1 values(333,'Ahuja',76,59,70)");

s.execute("insert into table1 values(444,'Anitha',75,55,60)");

System.out.println("Record inserted");

s.execute("select\*from table1");

ResultSet rs1=s.getResultSet();

System.out.println("List of students after insertion");

System.out.println("RegNO Name Oops Java Maths");

System.out.println("------------------------------------------------------------");

if(rs1 !=null)

while(rs1.next())

{

System.out.println(rs1.getString(1) +" "+rs1.getString(2)+ " "+rs1.getString(3) +" "+rs1.getString(4) +" "+ rs1.getString(5));

}

System.out.println("------------------------------------------------------------");

s.executeUpdate("DELETE FROM table1 WHERE regno=333");

System.out.println("List of students after delete operations");

s.execute("select\*from table1");

ResultSet rs2=s.getResultSet();

System.out.println("------------------------------------------------------------");

if(rs2 !=null)

while(rs2.next())

{

System.out.println(rs2.getString(1) +" "+rs2.getString(2) +" "+rs2.getString(3) +" "+rs2.getString(4)+" "+rs2.getString(5));

}

s.close();

con.close();

}

catch(Exception err)

{

System.out.println("ERROR:"+err);

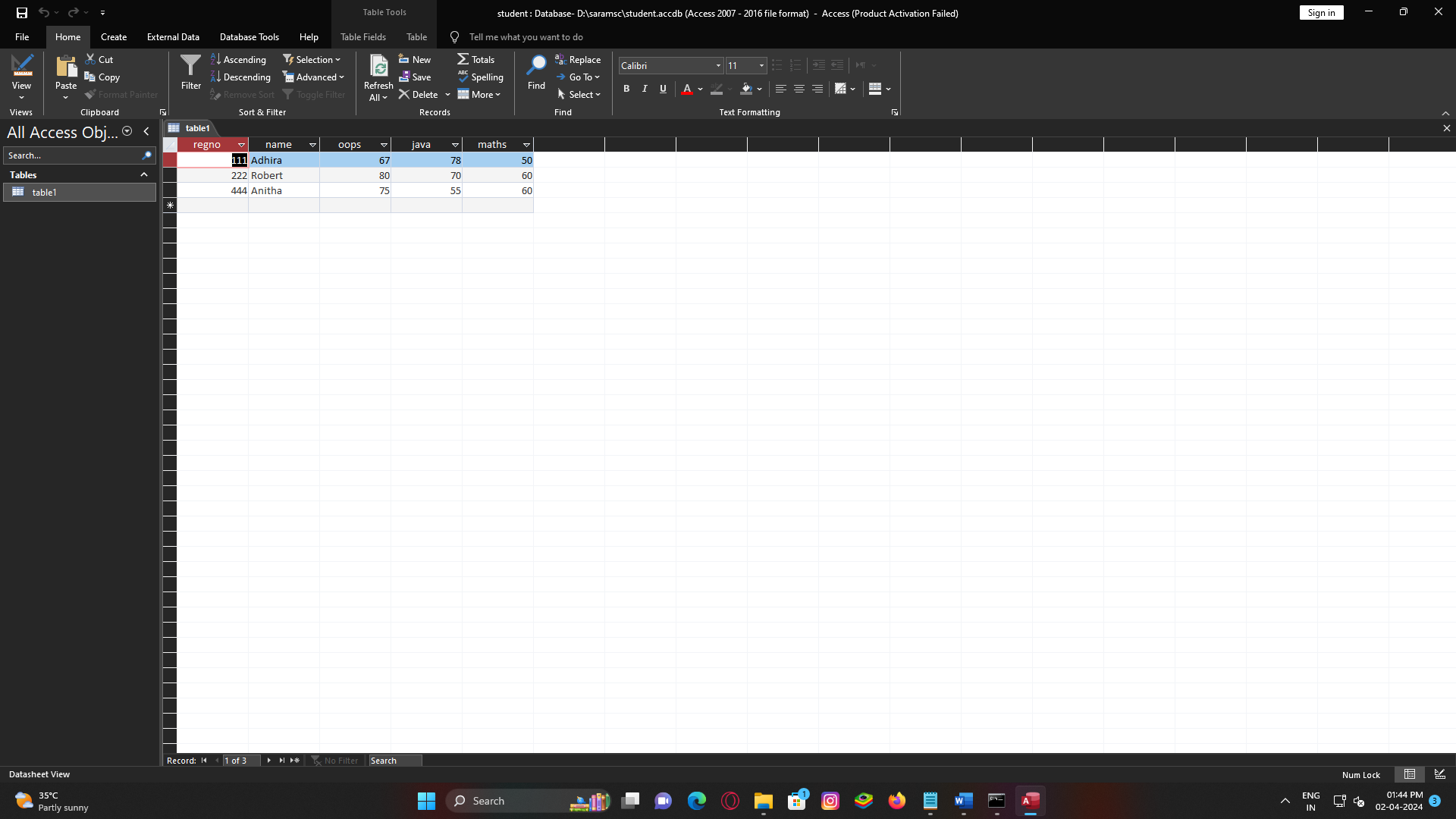
}

}

}

**Output:**

****



**JSP by using Session Object**

**index.html**

<html>

<head>

<title>Start Page</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<h1>Session Implementation using JSP </h1>

<form action="session1.jsp">

Enter User Name:

<br><br>

<input type="text" name="inputname">

<br><br>

<input type="submit" value="show session details"><br/>

</form>

</body>

</html>

**session1.jsp**

<%@page import="java.util.Date"%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html;charset=UTF-8">

<title>JSP Page</title>

</head>

<body>

<% String Username=request.getParameter("inputname");

out.print("Welcome"+Username); %>

</b><br><br>

<b>

<% Date createTime=new Date(session.getCreationTime());

out.println("Session Created Time is:"+createTime);%>

</b><br><br>

<b>

<% out.print("Session Id is:"+session.getId()); %>

</b><br><br>

<% session.setAttribute("sessname",Username); %>

<br><br>

<h2> <a href="session2.jsp">Set Session name and check it</a> </h2>

</body>

</html>

**session2.jsp**

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

<title>JSP Page</title>

</head>

<body>

<h3>

<%@ page import= "java.io.\*,java.util.\*" %>

<%

String name=(String)session.getAttribute("sessname");

out.print("Hello User!!! You set the Session Name as :" +name);

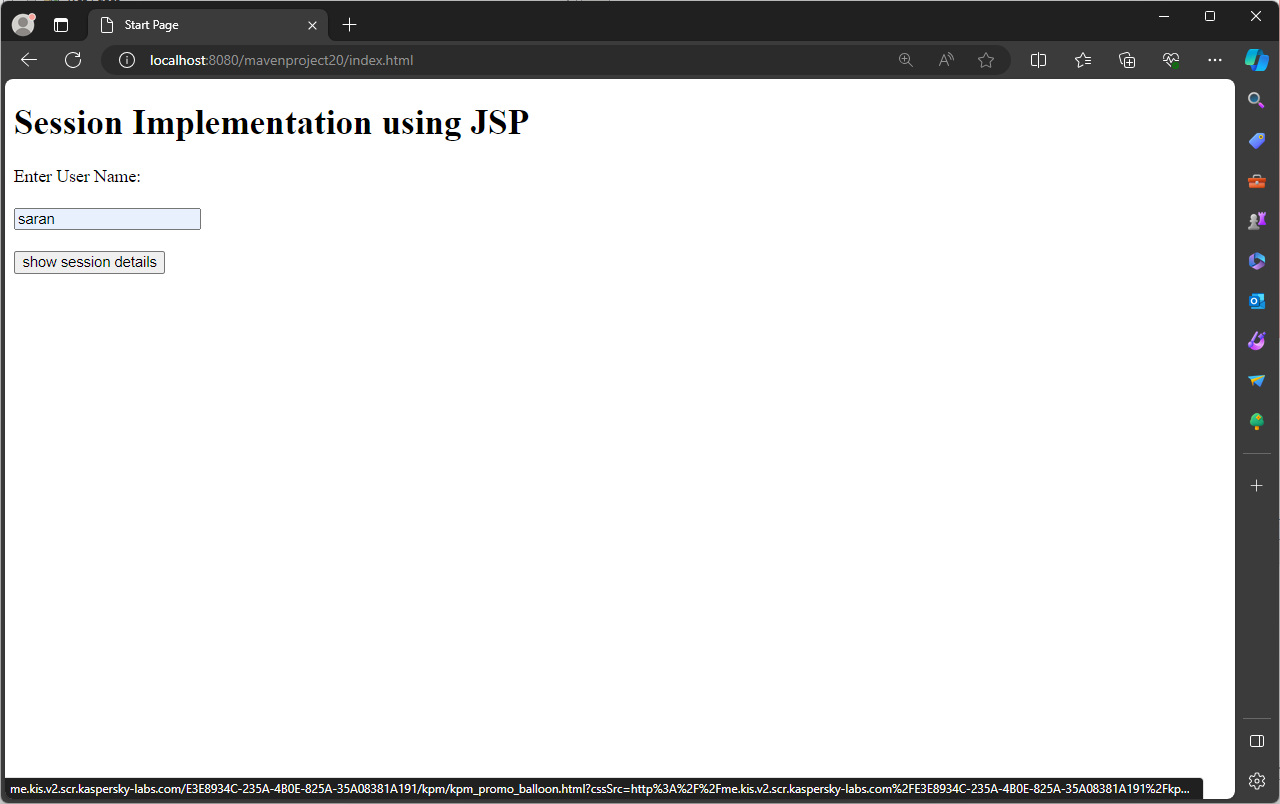
%>

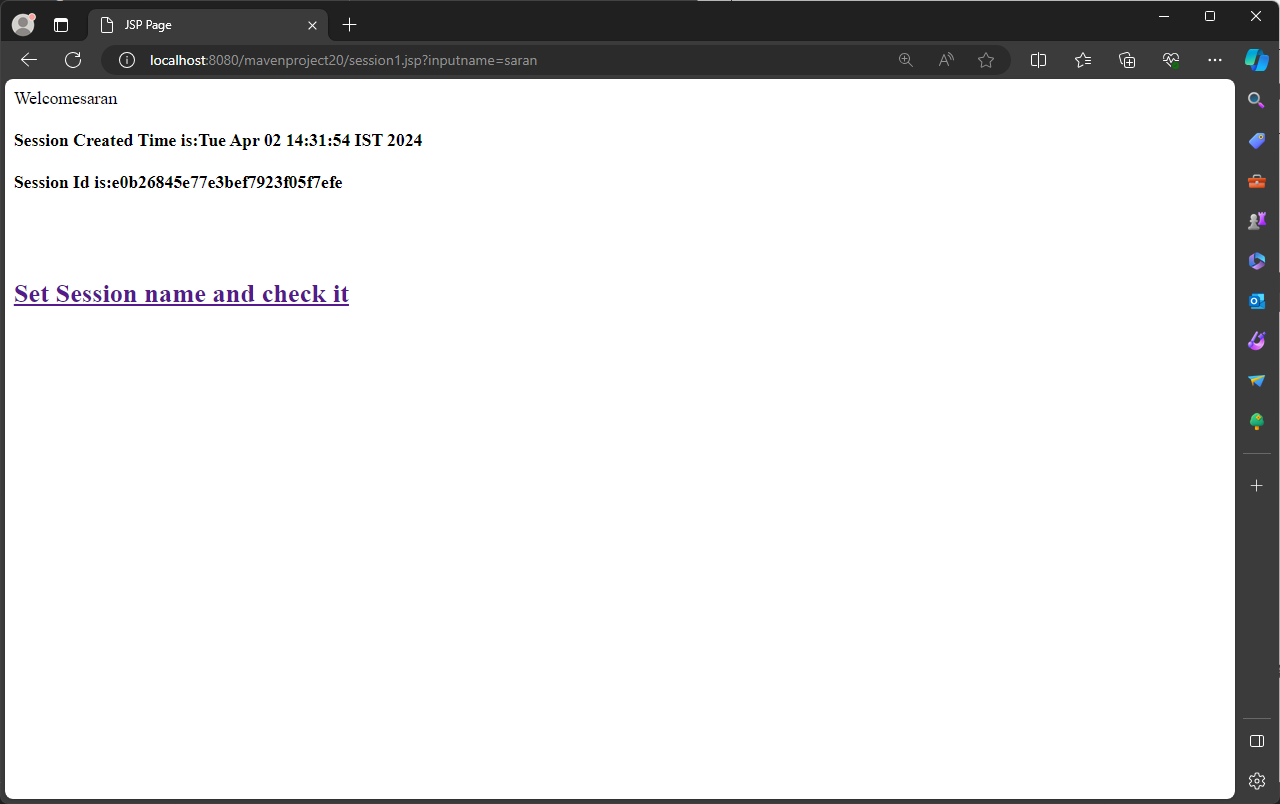
</h3>

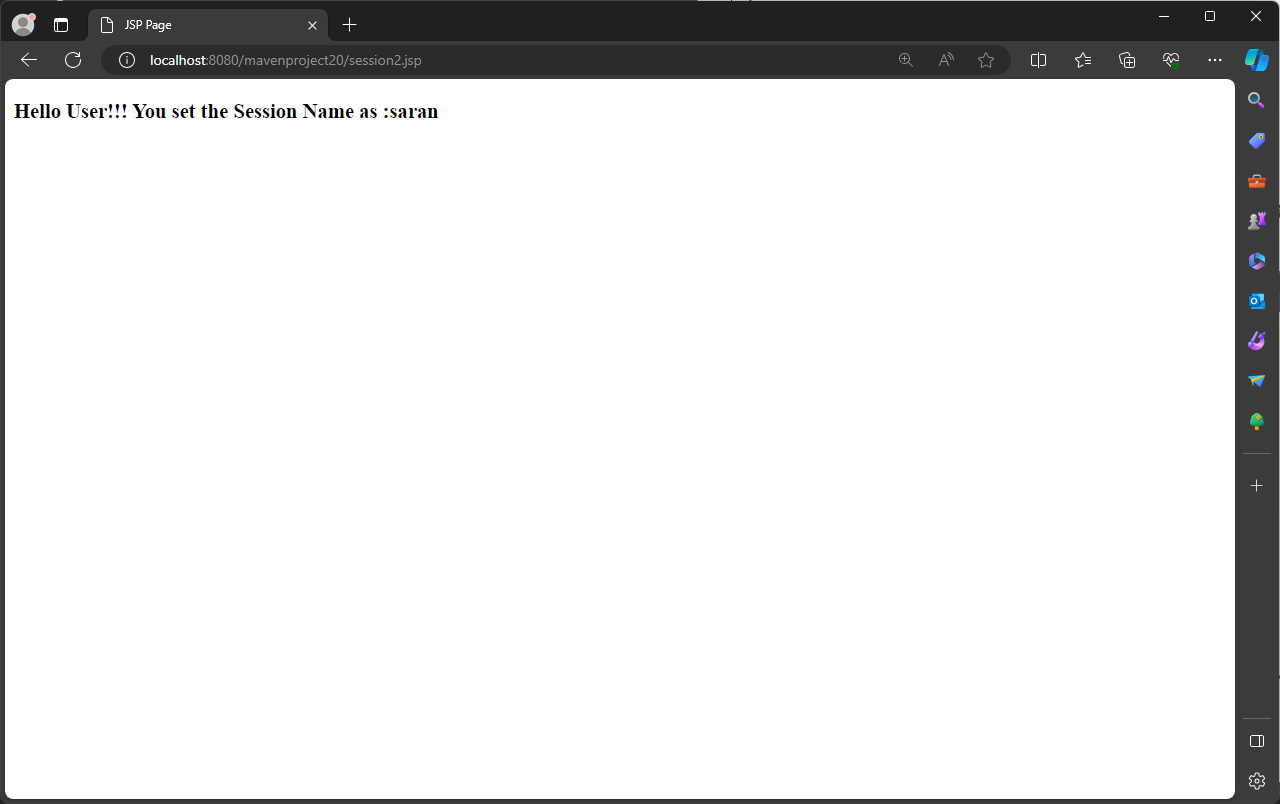
</body>

</html**>**

**Output:**







**Header Name and its Values**

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.util.\*;

@WebServlet(urlPatterns = {"/NewServlet"})

public class NewServlet extends HttpServlet {

protected void processRequest(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

try (PrintWriter out = response.getWriter()) {

out.println("<BODY BGCOLOR=\"#FDF5E6\">\n" +

"<H1 ALIGN=CENTER>" +"Servlet Header Names and its Values "+ "</H1>\n" +

"<B>Request Method: </B>" +

request.getMethod() + "<BR>\n" +

"<B>Request URI: </B>" +

request.getRequestURI() + "<BR>\n" +

"<B>Request Protocol: </B>" +

request.getProtocol() + "<BR><BR>\n" +

"<TABLE BORDER=1 ALIGN=CENTER>\n" +

"<TR BGCOLOR=\"#FFAD00\">\n" +

"<TH>Header Name<TH>Header Value");

Enumeration headerNames = request.getHeaderNames();

while(headerNames.hasMoreElements())

{

String headerName = (String)headerNames.nextElement();

out.println("<TR><TD>" + headerName);

out.println(" <TD>" + request.getHeader(headerName));

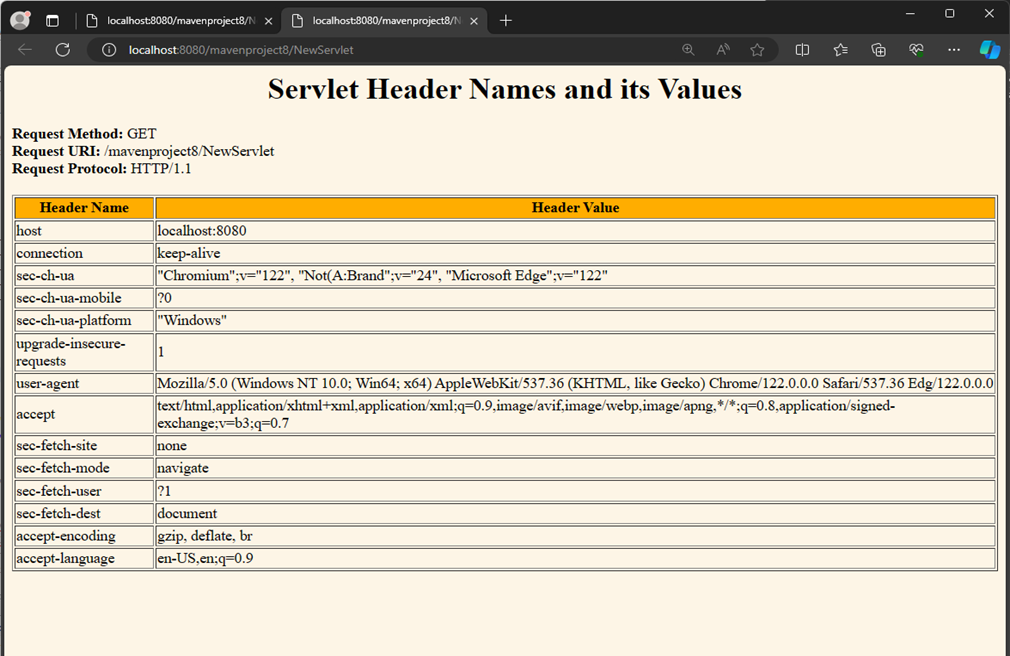
}

out.println("</TABLE>\n</BODY></HTML>");

}

}

**Output:**



**Purchase Order Form Using JSP**

**index.html**

<html>

<head>

<title>Start Page</title>

<meta http-equiv="Content-Type" content="text/html;charset=UTF-8">

</head>

<body>

<table border="solid" cellpadding="10">

<tr>

<td>

<center><h1>FURNISH HOUSE</h1>

<h4>23,Cap Road,Nagercoil-1.</h4></center>

<br>

<hr>

<form action="order.jsp" method="get">

Customer Name :<input type="text" name="name"><br><br>

Customer Address :<input type="text" name="address"><br><br>

Mobile Number :<input type="text" name="mobile"><br><br>

Email Id :<input type="text" name="email"><br>

<p>

Select Furniture :

<select name="furniture">

<option value="Double Cot">Double cot</option>

<option value="Single Cot">Single cot</option>

<option value="Dinning Table">Dinning table</option>

<option value="Sofa Set">Sofa set</option>

<option value="Chair">Chair<option>

</select>

Number of Pieces :<input type="text" name="qty">

Enter Unit Price :<input type="text" name="p">

<br><br><br>

<input type="submit" value="Proceed">

</form>

</td>

</tr>

</table>

</body>

</html**>**

**order.jsp**

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

<title>JSP Page</title>

</head>

<body>

<%

String name = request.getParameter("name");

String address = request.getParameter("address");

String mobile= request.getParameter("mobile");

String email = request.getParameter("email");

String furniture = request.getParameter("furniture");

Integer qty = Integer.parseInt(request.getParameter("qty"));

Integer up = Integer.parseInt(request.getParameter("p"));

Integer amt = qty\*up;

%>

<table border="solid" cellpadding="10">

<tr>

<td>

<center><h1>FURNISH HOUSE</h1>

<h4>23,Cap Road,Nagercoil-1.</h4>

</center>

<hr>

Customer Name :<%=name%><br>

Customer Address :<%=address%><br>

Mobile Number :<%=mobile%><br>

Email Id :<%=email%><br>

<hr>

<u>Order Detail</u><br>

Product Name :<%=furniture%><br><br>

Total Amount :Rs.<%=amt%><br><br>

<a href="confirm.html"> Confirm Order</a>

</td>

</tr>

</table>

</body>

</html>

**confirm.html**

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<center><h1>Dear Customer Your Order is Placed !!!</h1>

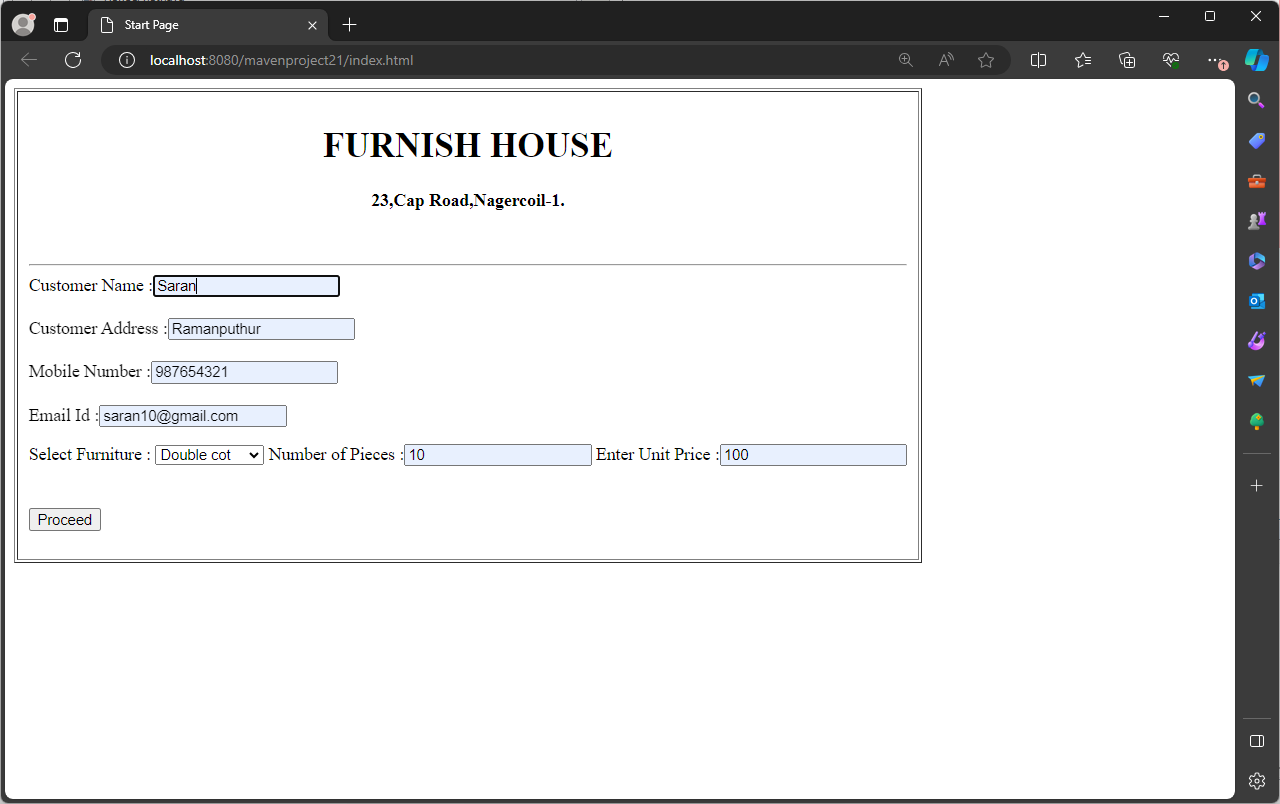
<h2>Welcome Back</h2>

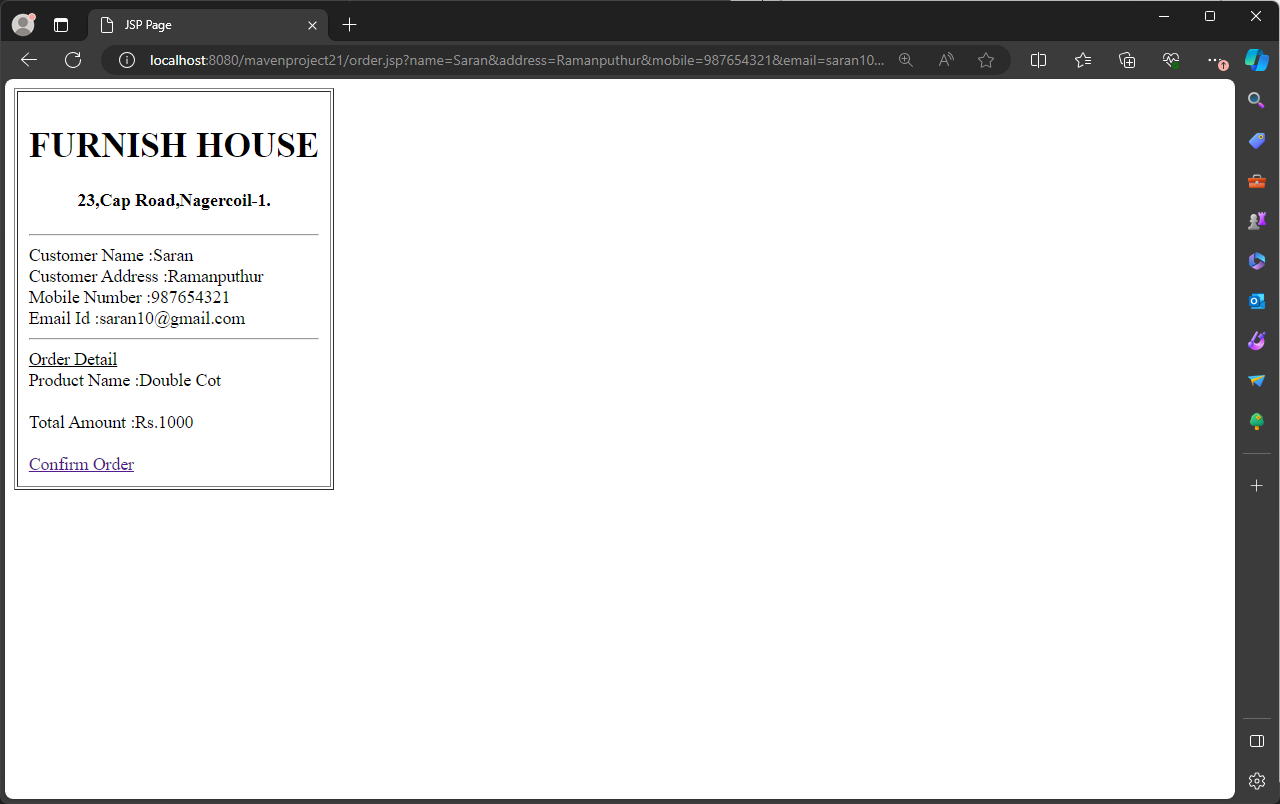
</center>

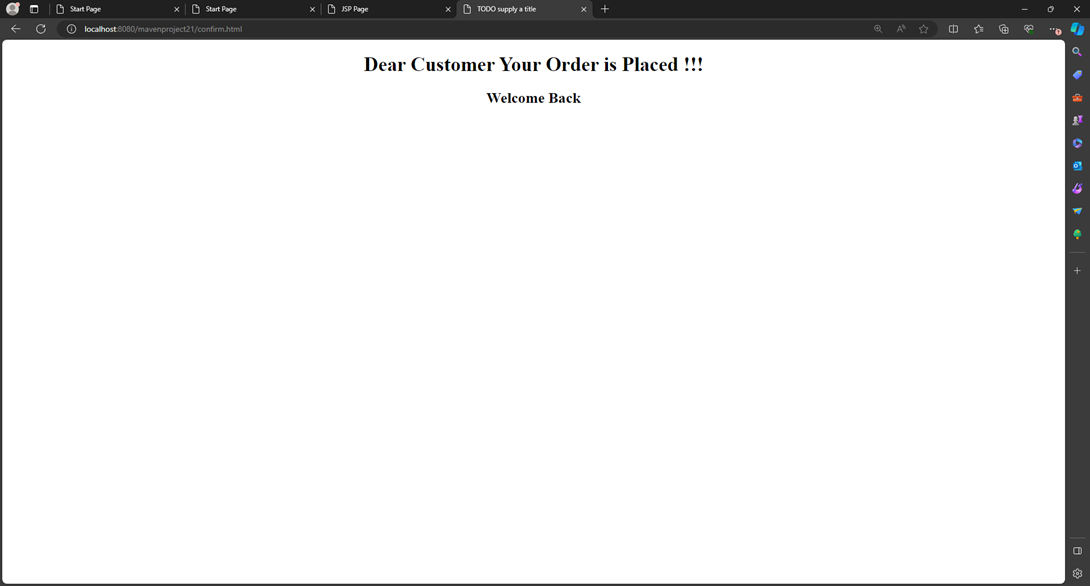
</body>

</html>

**Output:**







**Purchase Order Using Servlet**

**index.html**

<!DOCTYPE html>

<html>

<head>

<title>Start Page</title>

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

</head>

<body>

<table border="solid" cellpadding ="10">

<tr>

<td>

<center><h1>GLOBAL Home Collections </h1>

<h4>211, BSNL Road, Nagercoil-2.</h4>

<h3>ORDER FORM</h3>

</center>

<hr>

<form action="NewServlet2" method="get">

Customer Name : <input type="text" name="name" ><br><br>

Customer Address : <input type="text" name="address" ><br><br>

Mobile Number : <input type="text" name="mobile" ><br> <br>

Email ID : <input type="email" name="email" > <br><br>

Select Products : <br> <br>

<select name="utilities" >

<option value="Butterfly Cooker" >Butterfly Cooker </option>

<option value="Prestige Gas Stove">Prestige gas Stove</option>

<option value="Preeti Mixi">Preeti Mixer grinder</option>

<option value="Prestige Non Stick Cookware "> Prestige nonstick cookware set</option>

<option value="LG Fridge"> LG Fridge</option>

</select>

<br><br><br><br><br><br>

<input type="submit" value ="Show order detail">

</form>

</td>

</tr>

</table>

</body>

</html>

**NewServlet2.java**

public class NewServlet2 extends HttpServlet {

protected void processRequest(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException

{

response.setContentType("text/html;charset=UTF-8");

try (PrintWriter out = response.getWriter())

{

String name = request.getParameter("name");

String address = request.getParameter("address");

String mobile = request.getParameter("mobile");

String email = request.getParameter("email");

String utilities= request.getParameter("utilities");

out.println("<!DOCTYPE html>");

out.println("<html>");

out.println("<head>");

out.println("<title>Servlet NewServlet2</title>");

out.println("</head>");

out.println("<body>");

out.println("<table border=solid cellpadding =10>");

out.println("<tr>");

out.println("<td>");

out.println("<center><h1>GLOBAL Home Collections </h1>");

out.println(" <h4>23, Cap Road, Nagercoil-1.</h4> </center>");

out.println("<hr>");

out.println("Customer Name :" + name + "<br>" );

out.println("Customer Address :" + address + "<br>" );

out.println("Customer Mobile :" + mobile + "<br>" );

out.println("Customer Name :" + email + "<br>" );

out.println("<hr>");

out.println("Product Ordered : " + utilities + " <br><br>");

out.println("<a href=servconfirm.html> Confirm Order </a>");

out.println("</td> </tr> </table>");

out.println("</body>");

out.println("</html>");

}

}

**servconfirm.html**

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

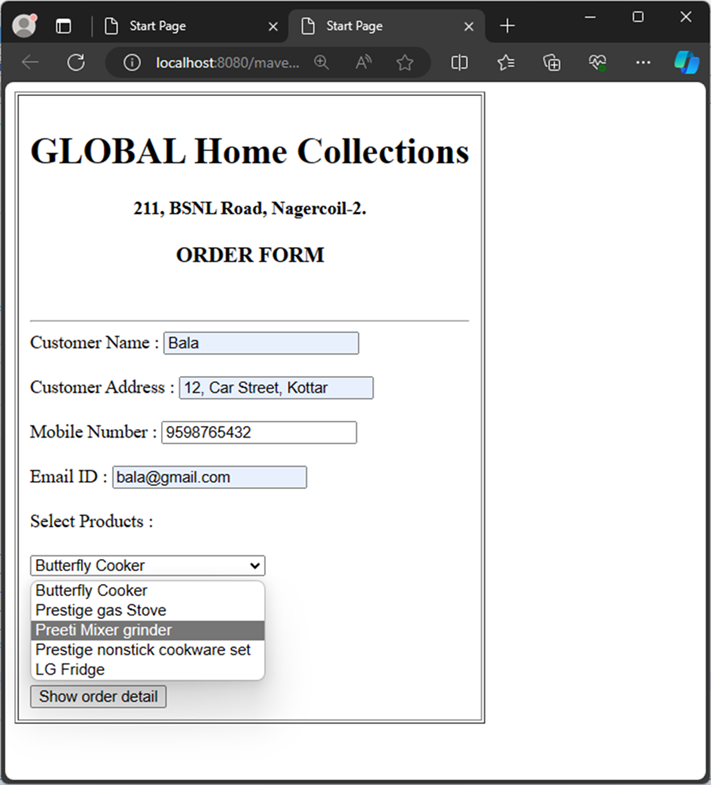
<center><h1> Dear Customer Your Order is Placed !!!</h1>

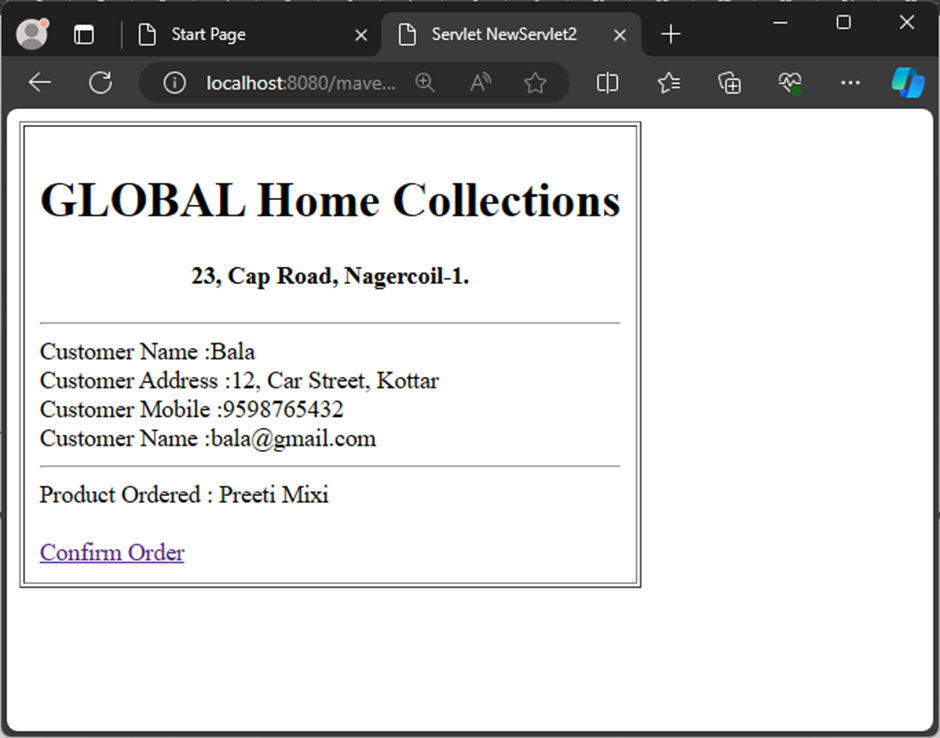
<h2> Welcome Back</h2>

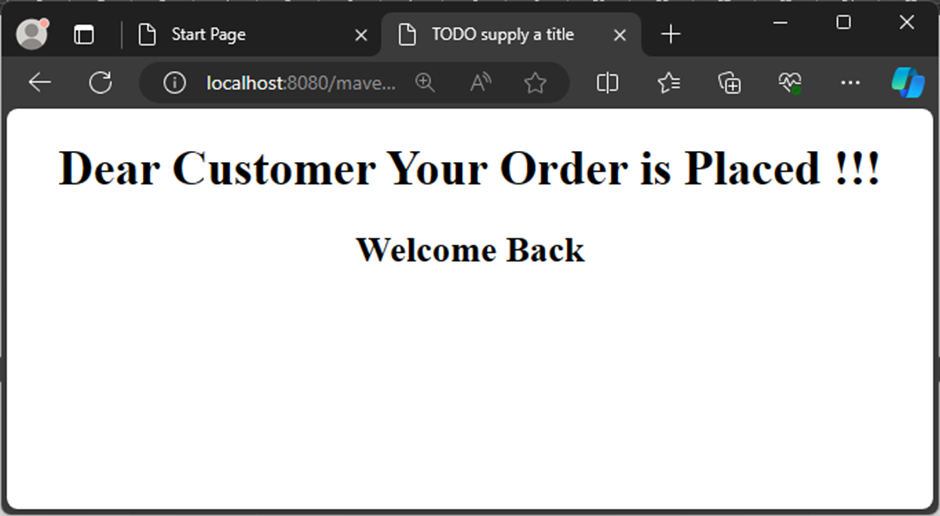
</body>

</html>

**Output:**







**Calculator Using Swing**

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import javax.swing.JButton;

import javax.swing.JFrame;

import javax.swing.JLabel;

import javax.swing.JTextField;

public class calc extends JFrame implements ActionListener

{

JButton jb1,jb2,jb3,jb4;

JTextField jt1,jt2;

JLabel lb1;

calc()

{

jt1=new JTextField();

jt1.setBounds(90,50,150,30);

add(jt1);

jt2=new JTextField();

jt2.setBounds(90,90,150,30);

add(jt2);

lb1=new JLabel("Result:");

lb1.setBounds(90,140,150,30);

add(lb1);

jb1=new JButton("ADD");

jb1.setBounds(50,200,100,30);

add(jb1);

jb2=new JButton("SUB");

jb2.setBounds(150,200,100,30);

add(jb2);

jb3=new JButton("MUL");

jb3.setBounds(250,200,100,30);

add(jb3);

jb4=new JButton("DIV");

jb4.setBounds(350,200,100,30);

add(jb4);

jb1.addActionListener(this);

jb2.addActionListener(this);

jb3.addActionListener(this);

jb4.addActionListener(this);

setLayout(null);

setSize(600,500);

setVisible(true);

}

public void actionPerformed(ActionEvent e)

{

int a=Integer.parseInt(jt1.getText());

int b=Integer.parseInt(jt2.getText());

int c=0;

if(e.getSource().equals(jb1))

{

c=a+b;

lb1.setText(String.valueOf(c));

}

else if(e.getSource().equals(jb2))

{

c=a-b;

lb1.setText(String.valueOf(c));

}

else if(e.getSource().equals(jb3))

{

c=a\*b;

lb1.setText(String.valueOf(c));

}

else if(e.getSource().equals(jb4))

{

c=a/b;

lb1.setText(String.valueOf(c));

}

}

public static void main(String args[])

{

calc f=new calc();

f.setTitle("Closing Frame with Default Close Operation");

f.setBounds(100,50,500,300);

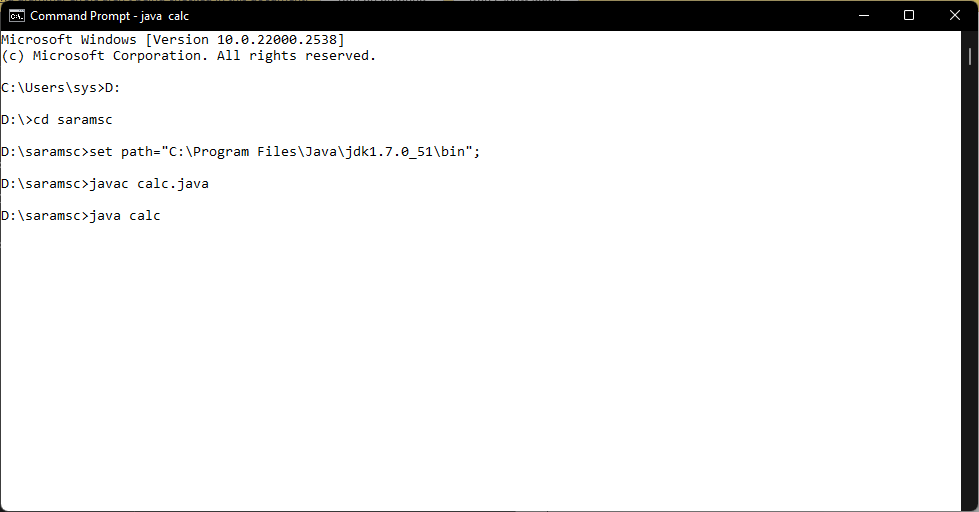
f.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

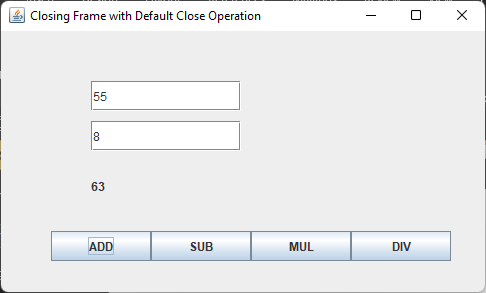
f.setVisible(true);

}

}

**Output:**





**Sending and Receiving Text Message(Client-Server)**

**ChatServer**

import java.net.\*;

import java.io.\*;

class chatServer

{

public static void main(String args[])throws Exception

{

ServerSocket ss=new ServerSocket(3333);

Socket s=ss.accept();

DataInputStream din=new DataInputStream(s.getInputStream());

DataOutputStream dout=new DataOutputStream(s.getOutputStream());

BufferedReader br=new BufferedReader(new InputStreamReader(System.in));

String str=" ",str2=" ";

while(!str.equals("stop"))

{

str=din.readUTF();

System.out.println("client says:"+str);

str2=br.readLine();

dout.writeUTF(str2);

dout.flush();

}

din.close();

s.close();

ss.close();

}

}

**ChatClient**

import java.net.\*;

import java.io.\*;

class chatClient

{

public static void main(String args[])throws Exception

{

Socket s=new Socket("localhost",3333);

DataInputStream din=new DataInputStream(s.getInputStream());

DataOutputStream dout=new DataOutputStream(s.getOutputStream());

BufferedReader br=new BufferedReader(new InputStreamReader(System.in));

String str=" ",str2=" ";

while(!str.equals("stop"))

{

str=br.readLine();

dout.writeUTF(str);

dout.flush();

str2=din.readUTF();

System.out.println("Server says:"+str2);

}

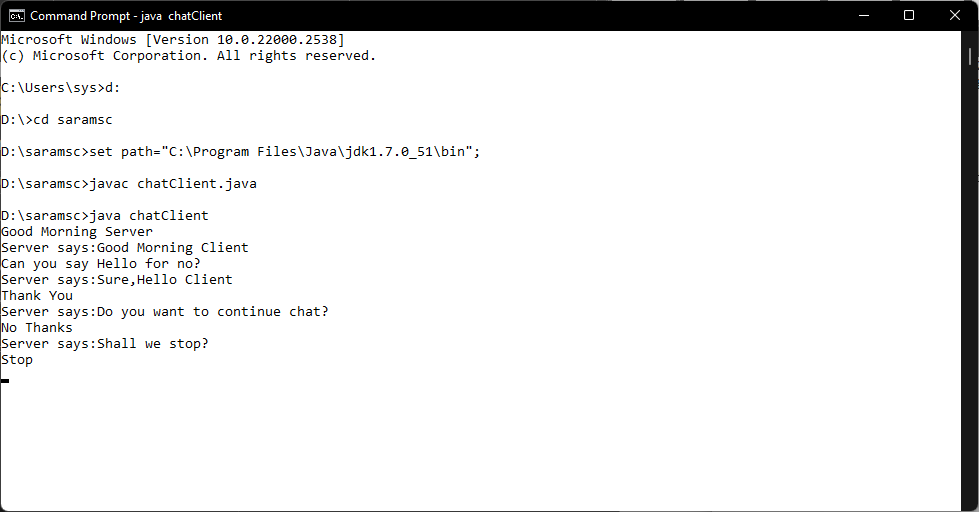
dout.close();

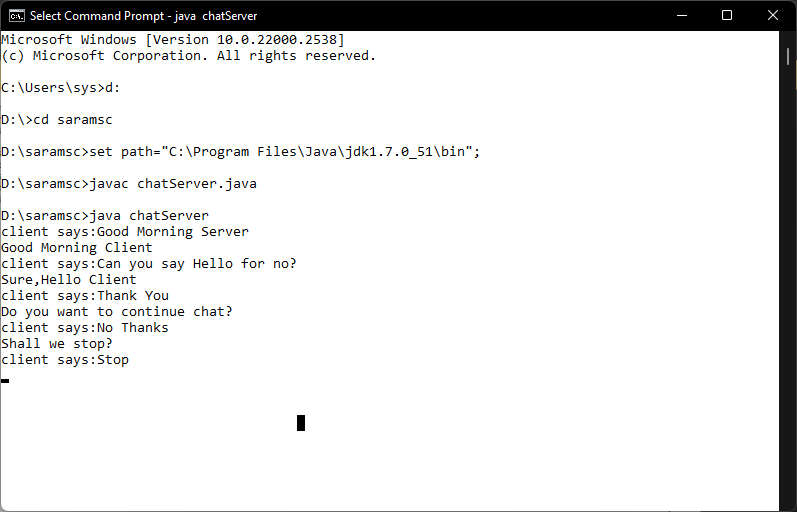
s.close();

}

}

**Output:**





**JSP to Calculate Percentage of Marks**

**marks.jsp**

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

<title>JSP Page</title>

</head>

<body>

<%

int java=Integer.parseInt(request.getParameter("java"));

int NMA=Integer.parseInt(request.getParameter("NMA"));

int MCAD=Integer.parseInt(request.getParameter("MCAD"));

int PPUD=Integer.parseInt(request.getParameter("PPUD"));

int Project=Integer.parseInt(request.getParameter("pro"));

int c=java+NMA+MCAD+PPUD+Project;

double avg=c/5;

out.println("Your Percentage is:"+avg);

%>

<br><br>

<%

if(avg>90)

{

out.println("your grade is A");

}

else if(avg>=80){

out.println("your grade is b");

}

else if(avg>=70){

out.println("your grade is c");

}

else if(avg>=60){

out.println("your grade is d");

}

else{

out.println("your grade is e");

}

%>

</body>

</html>

**marks.html**

<html>

<head>

<title>TODO supply a title</title>

</head>

<body>

<center>

<h1>Student marks</h1>

<form action="marks.jsp" method="get">

Enter Marks in java:<input type="text" name="java"><br><br>

Enter NMA Marks:<input type="text" name="NMA"><br><br>

Enter MCAD Marks:<input type="text" name="MCAD"><br><br>

Enter PPUD Marks:<input type="text" name="PPUD"><br><br>

Enter Project Marks:<input type="text" name="pro"><br><br>

<input type="submit">

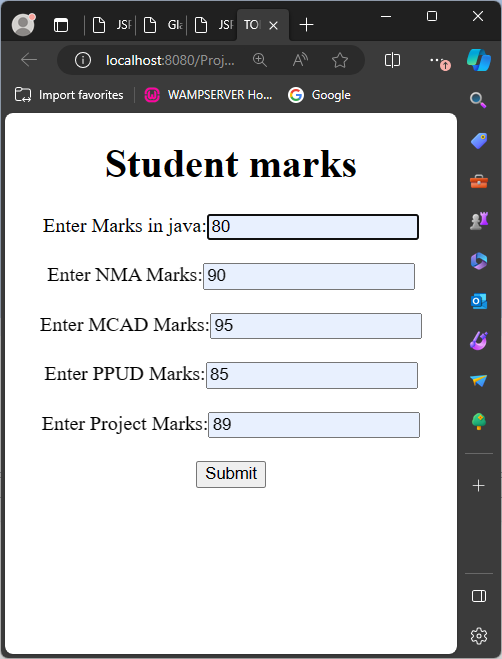
</form>

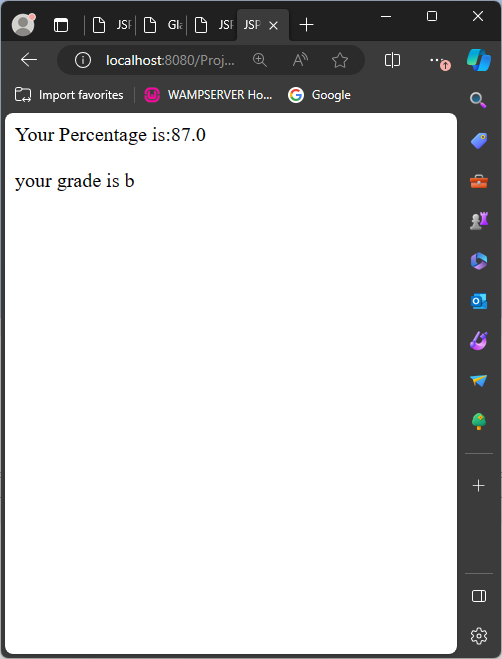
</center>

</body>

</html>

**Output:**

****

****