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Satisfactory completed :- _____ Practicals, in the subject of

_____ During the academic year 202_ - 202_

Term	No of Practicals	Signature

Teacher Incharge

Incharge

Department of BSC-IT

Signature of Examiner

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Practical 1

AIM: To Perform Arithmetic Operation using Servlet.

HTML Code: index.html

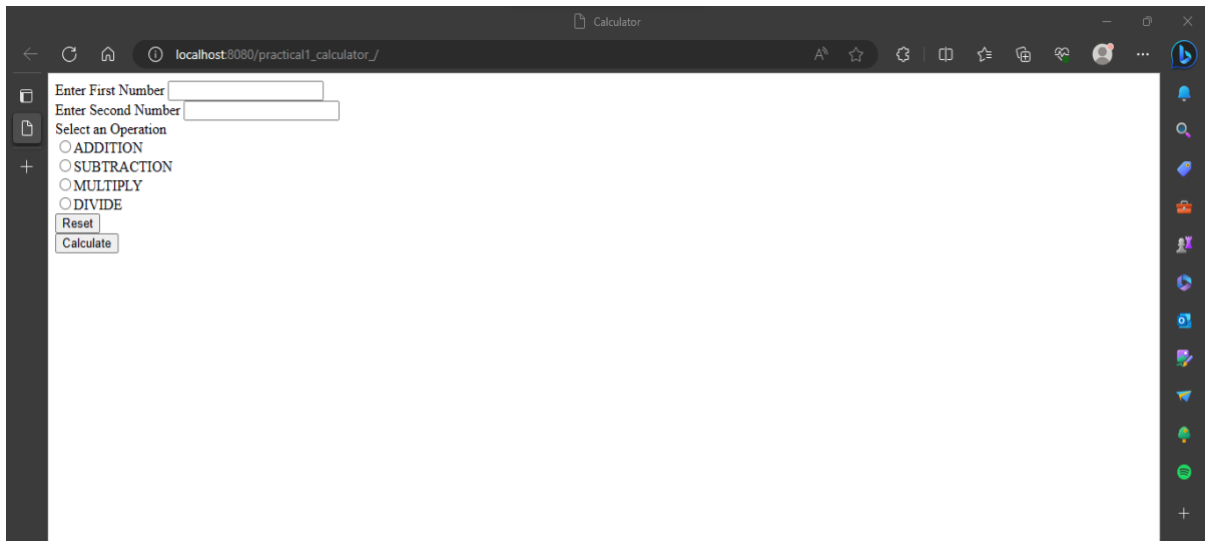
```
<html>
<head>
<title>Calculator</title>
</head>
<body>
<form action="NewServlet">
  Enter First Number <input type="text" name="txtN1"><br>
  Enter Second Number <input type="text" name="txtN2"><br>
  Select an Operation<br>
  <input type="radio" name="opr" value="+">ADDITION<br>
  <input type="radio" name="opr" value="-">SUBTRACTION<br>
  <input type="radio" name="opr" value="*">MULTIPLY<br>
  <input type="radio" name="opr" value="/">DIVIDE <br>
  <input type="reset"><br>
  <input type="submit" value="Calculate">
</form>
</body>
</html>
```

Java Code: NewServlet.java

```
package com.test;
import java.io.IOException;
import java.io.PrintWriter;
```

```
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class NewServlet extends HttpServlet {
    public 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
        CalculatorServlet</title></head><body>");
        double n1 = Double.parseDouble(request.getParameter("txtN1"));
        double n2 = Double.parseDouble(request.getParameter("txtN2"));
        double result =0;
        String opr=request.getParameter("opr");
        if(opr.equals("+"))
            result=n1+n2;
        if(opr.equals("-"))
            result=n1-n2;
        if(opr.equals("*"))
            result=n1*n2;
        if(opr.equals("/"))
            result=n1/n2;
        out.println("<h1> Result = "+result);
        out.println("</body></html>");
    }
}
```

OUTPUT:



Calculator

localhost:8080/practical1_calculator_

Enter First Number

Enter Second Number

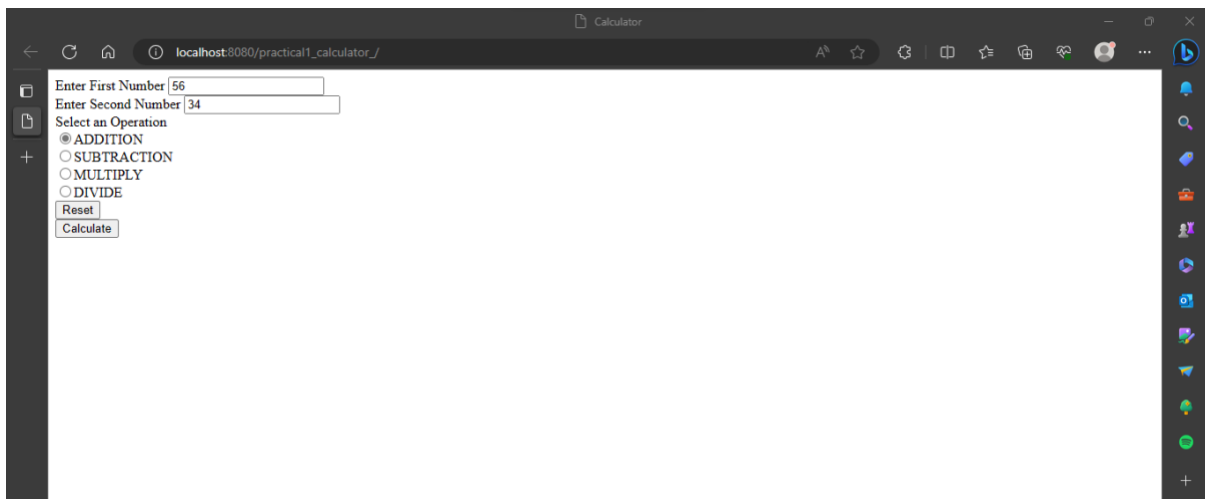
Select an Operation

☐ ADDITION

☐ SUBTRACTION

☐ MULTIPLY

☐ DIVIDE



Calculator

localhost:8080/practical1_calculator_

Enter First Number

Enter Second Number

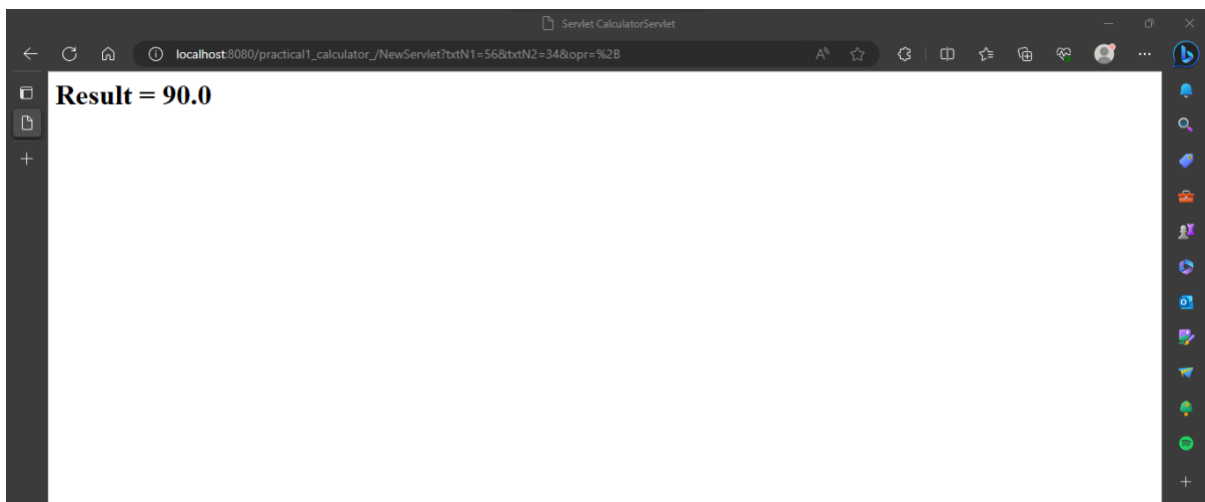
Select an Operation

☒ ADDITION

☐ SUBTRACTION

☐ MULTIPLY

☐ DIVIDE



Servlet CalculatorServlet

localhost:8080/practical1_calculator_/NewServlet?txtN1=56&txtN2=34&opr=%2B

Result = 90.0

Practical 2

Aim: To validate a user by Name and password.

HTML Code: index.html

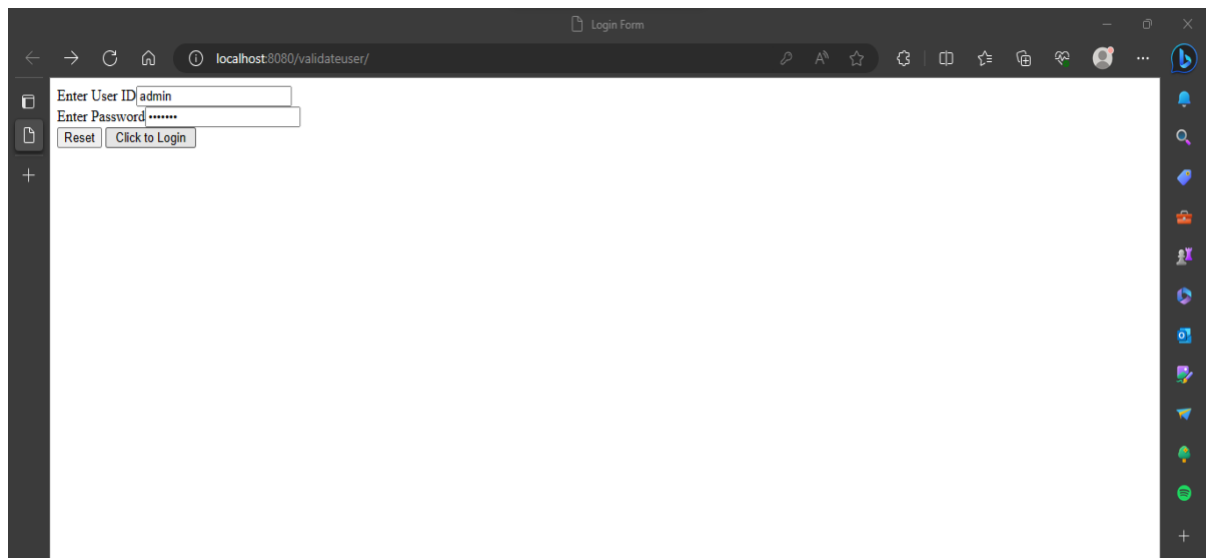
```
<html>
<head>
<title>Login Form</title>
</head>
<form action="NewServlet">
  Enter User ID<input type="text" name="txtId"><br>
  Enter Password<input type="password" name="txtPass"><br>
  <input type="reset">
  <input type="submit" value=" Click to Login ">
</form>
</html>
```

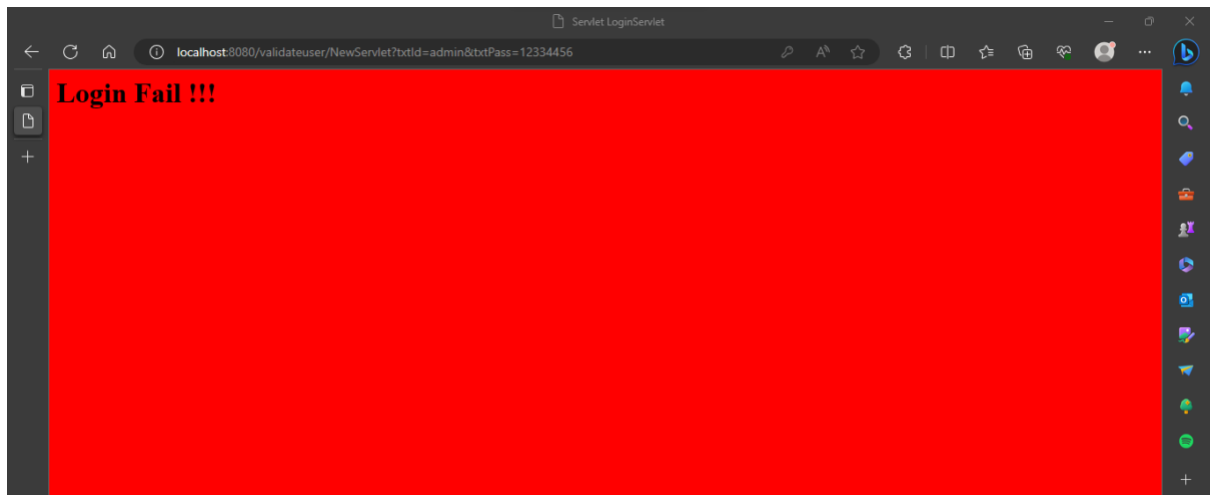
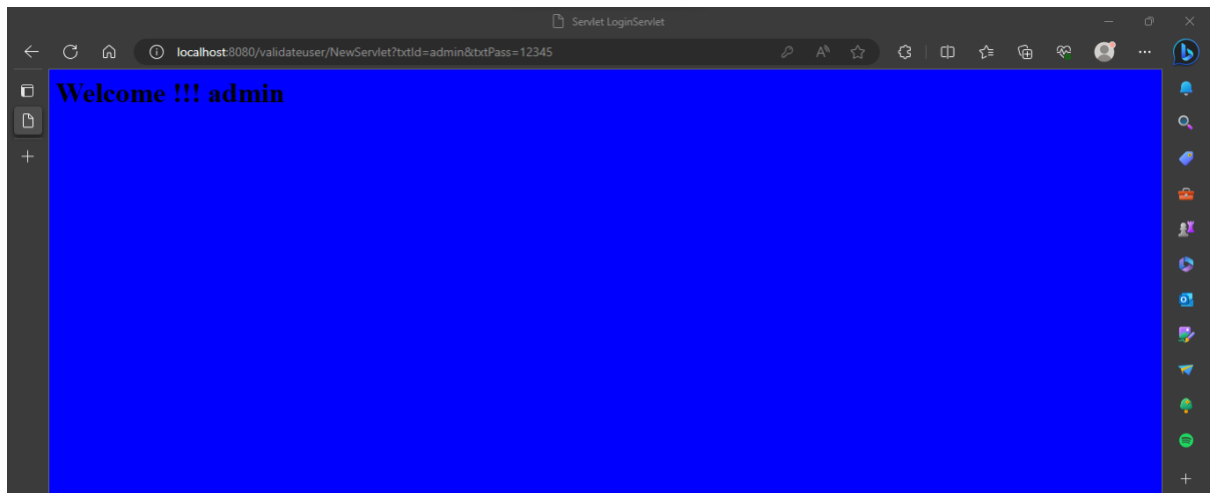
Servlet Code: NewServlet.java

```
package mypack;
import java.io.*;
import javax.servlet.ServletException;
import javax.servlet.http.*;
public class NewServlet extends HttpServlet {
  public 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("admin") &&upass.equals("12345")){  
out.println("<body bgcolor=blue >");  
out.println("<h1> Welcome !!! "+uname+"</h1>");  
}  
else{  
out.println("<body bgcolor=red >");out.println("<h1> Login Fail !!! </h1>");  
}  
out.println("</body></html>");}}
```

Output:





Practical 3

AIM: Display implicit object by JSP.

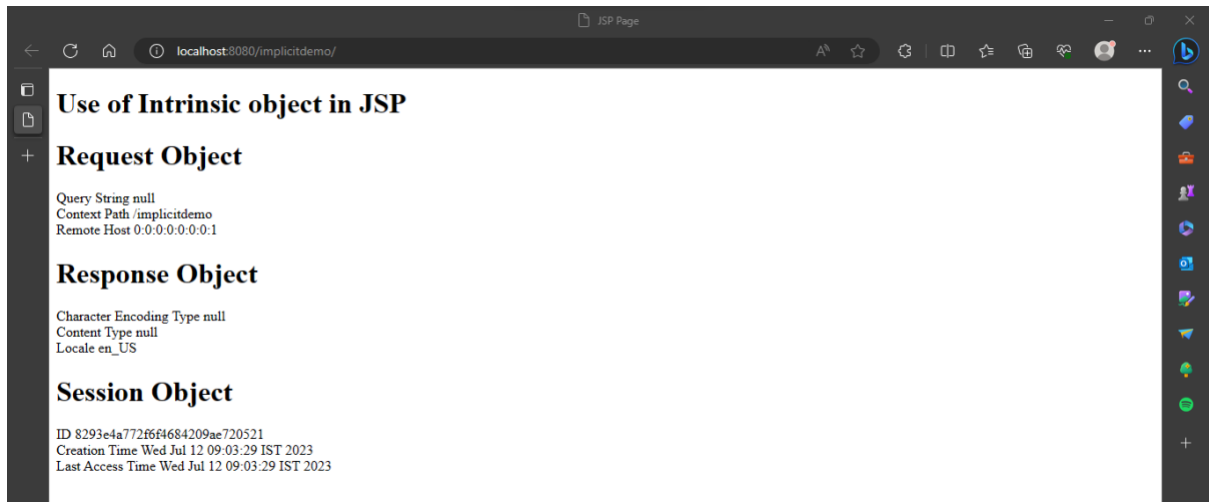
JSP Code:

```
<%@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>Use of Intrinsic object in JSP</h1>
<h1>Request Object</h1>
    Query String <%=request.getQueryString() %><br>
    Context Path <%=request.getContextPath() %><br>
    Remote Host <%=request.getRemoteHost() %><br>
<h1>Response Object</h1>
    Character Encoding Type <%=request.getCharacterEncoding() %><br>
    Content Type <%=request.getContentType() %><br>
    Locale <%=request.getLocale() %><br>
<h1>Session Object </h1>
    ID <%=session.getId() %><br>
    Creation Time <%= new java.util.Date(session.getCreationTime()) %><br>
    Last Access Time <%= new java.util.Date(session.getLastAccessedTime())
%>
```

</body>

</html>

Output:



Practical 4

Aim: To find number times user visited the page.

Html Code: index.html

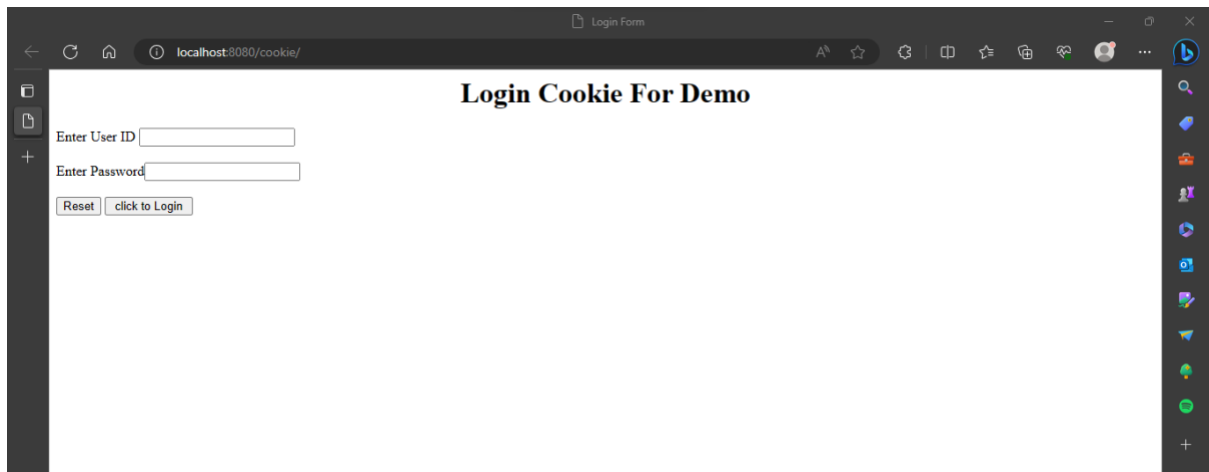
```
<html>
<head>
<title>Login Form</title><meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<form action="NewServlet">
<center><h1>Login Cookie For Demo</h1></center>
Enter User ID <input type="text" name="txtId"><br><br>
Enter Password<input type="password" name="txtPass"><br><br><input
type="reset">
<input type="submit" value=" click to Login ">
</form>
</body>
</html>
```

Java Code:NewServlet.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class NewServlet extends HttpServlet
{
static int i=1;
```

```
public void doGet (HttpServletRequest request, HttpServletResponse response)
throws IOException, ServletException
{
response.setContentType ("text/html");
PrintWriter out = response.getWriter();
String k=String.valueOf(i);
Cookie c = new Cookie ("visit", k);
response.addCookie(c) ;
int j=Integer.parseInt (c.getValue ()) ;
if (j==1)
out.println("Welcome");
else
out.println("<font color=blue> oho genious</font><br>");
out.println("You visited "+i+" times");
i++;}}
```

Output:



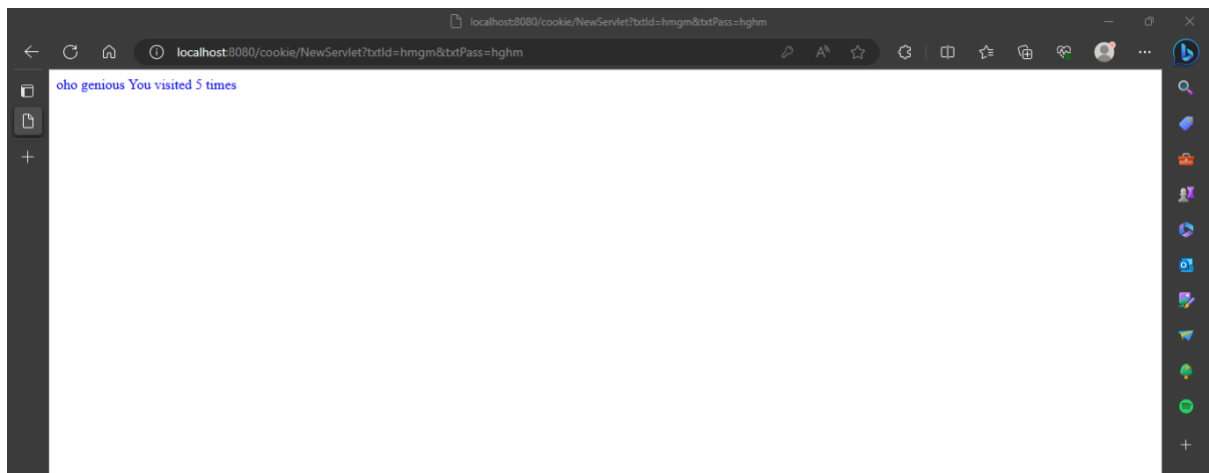
A screenshot of a web browser window displaying a login form. The browser's address bar shows the URL `localhost:8080/cookie/`. The page title is "Login Form". The main heading of the page is "Login Cookie For Demo". Below the heading, there are two input fields: "Enter User ID" and "Enter Password". Below these fields are two buttons: "Reset" and "click to Login". The browser's sidebar on the left shows a list of tabs, and the right sidebar shows a list of application icons.

localhost:8080/cookie/

Login Cookie For Demo

Enter User ID

Enter Password



A screenshot of a web browser window displaying a message. The browser's address bar shows the URL `localhost:8080/cookie/NewServlet?txtId=hmgm&txtPass=hghm`. The message displayed is "oho genius You visited 5 times". The browser's sidebar on the left shows a list of tabs, and the right sidebar shows a list of application icons.

localhost:8080/cookie/NewServlet?txtId=hmgm&txtPass=hghm

oho genius You visited 5 times

Practical 5

Aim: To update sql table by JSPb page.

HTML Code: index.html

```
<html>

<body>

<form action="UpdateEmp.jsp">

Enter Employee Number<input type="text" name="txtEno"><br>

Enter Name<input type="text" name="txtName"><br>

Enter age<input type="text" name="txtAge"><br>

Enter Salary<input type="text" name="txtSal"><br>

<input type="reset"><input type="submit">

</form>

</body>

</html>
```

JSP Code:UpdateEmp.jsp

```
<%@page contentType="text/html" import="java.sql.*" %>

<html><body>

<h1>Employee Record Update</h1>

<%

String eno=request.getParameter("txtEno");

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

String age = request.getParameter("txtAge");

String sal = request.getParameter("txtSal");

try{

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

```

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

PreparedStatement stmt = con.prepareStatement("select * from emp where empid=?");

stmt.setString(1, eno);

ResultSet rs = stmt.executeQuery();

if(rs.next()){

out.println("<h1>~~~ Employee "+name+" Exist ~~~ </h1>");

PreparedStatement pst1= con.prepareStatement("update emp set salary=? where
empid=?");

PreparedStatement pst2= con.prepareStatement("update emp set age=? where empid=?");

pst1.setString(1, sal); pst1.setString(2, eno);

pst2.setString(1, age); pst2.setString(2, eno);

pst1.executeUpdate(); pst2.executeUpdate();

}

else{

out.println("<h1>Employee Record not exist !!!!!</h1>");

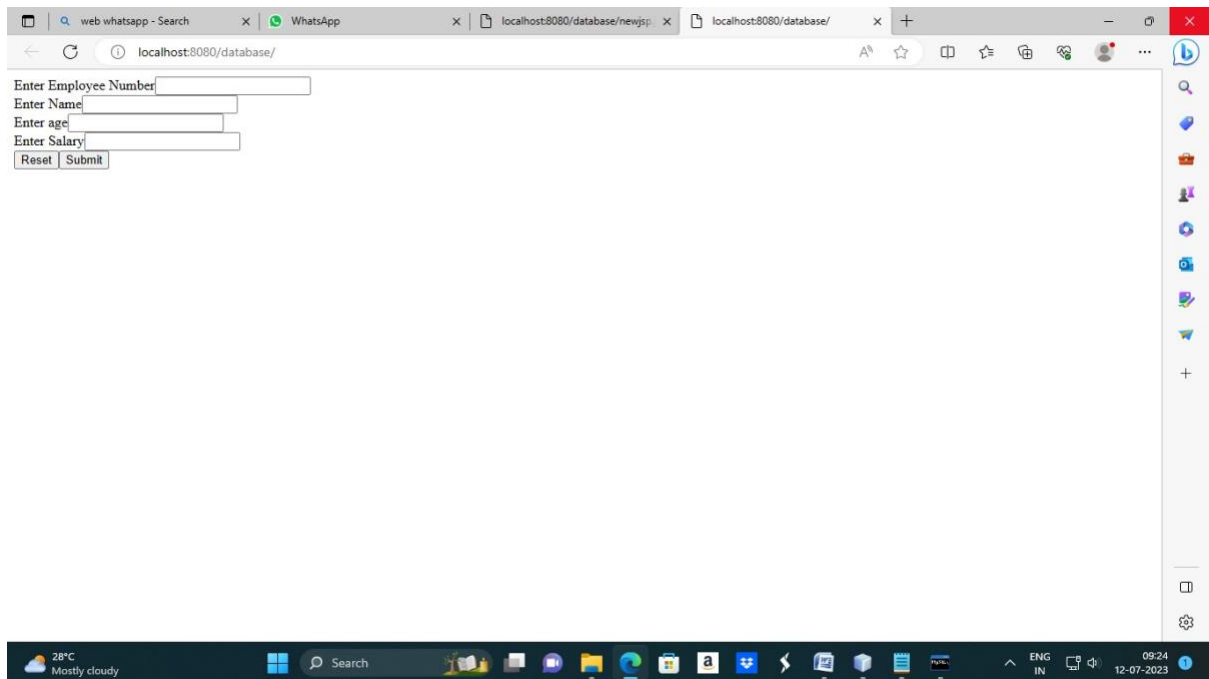
}

}catch(Exception e){out.println(e);}

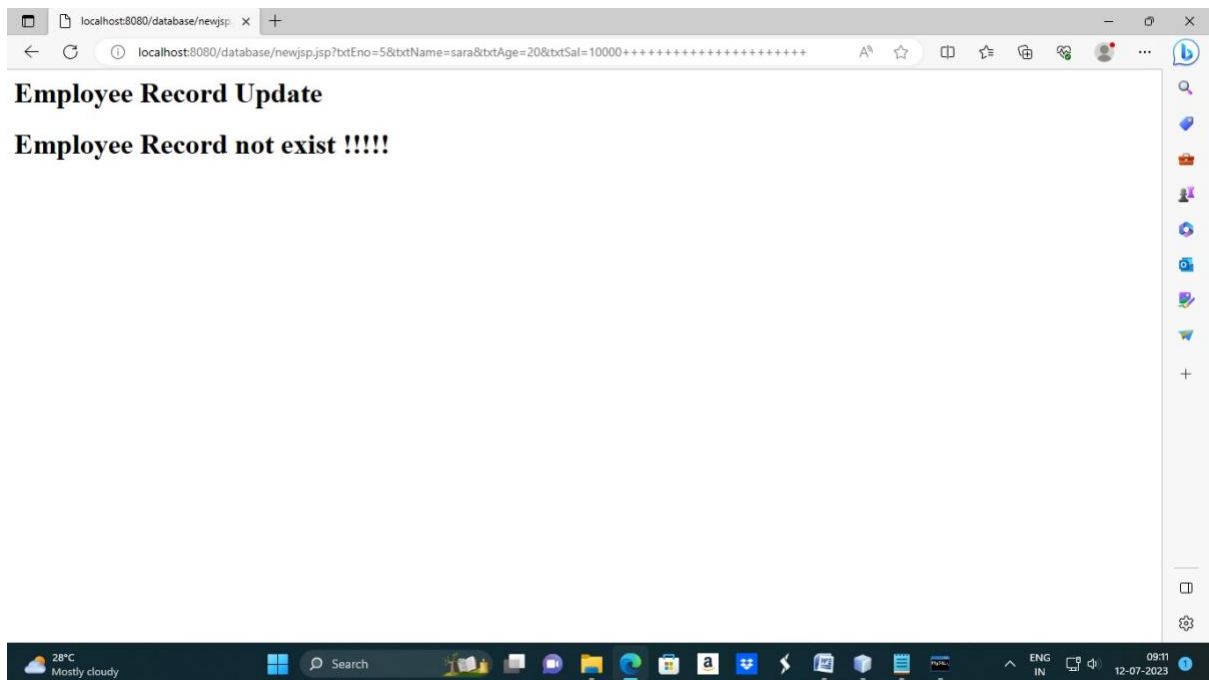
%></body></html>

```

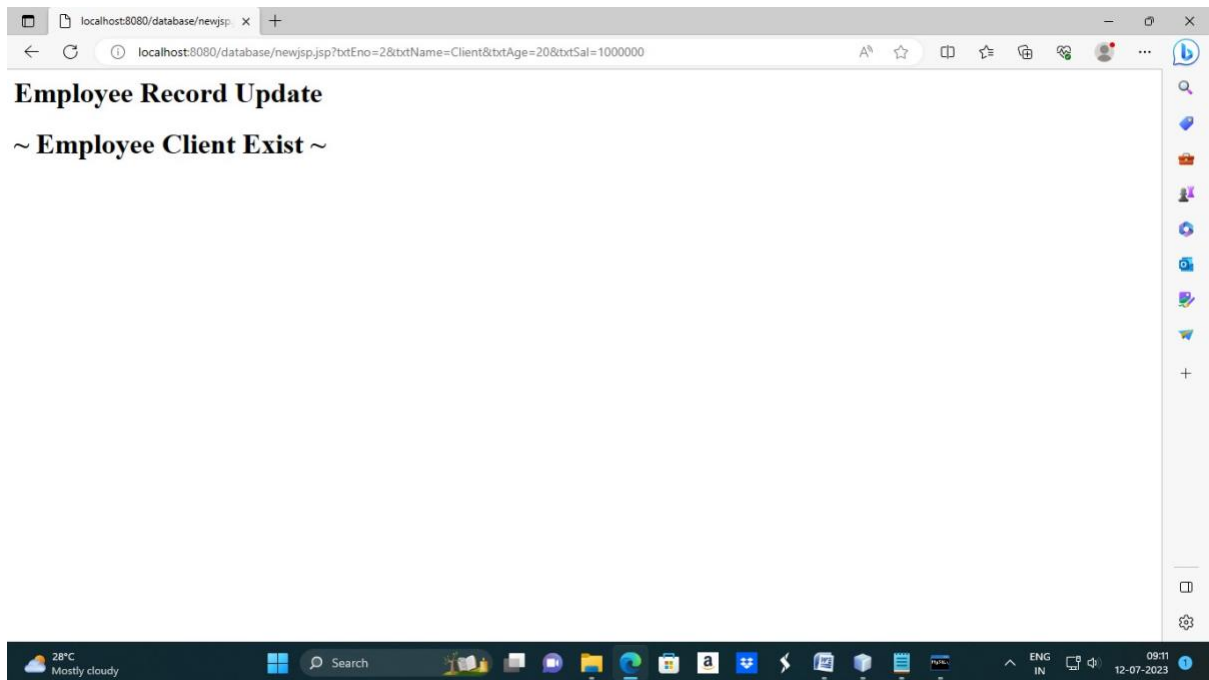
Output:



A screenshot of a web browser window displaying a form for entering employee details. The browser's address bar shows the URL `localhost:8080/database/`. The form contains four input fields labeled "Enter Employee Number", "Enter Name", "Enter age", and "Enter Salary". Below these fields are two buttons: "Reset" and "Submit". The browser's taskbar at the bottom shows the system clock as 09:24 on 12-07-2023.



A screenshot of a web browser window showing an error message. The browser's address bar displays the URL `localhost:8080/database/newjsp.jsp?txtEno=5&txtName=sara&txtAge=20&txtSal=10000+++++`. The page content consists of two lines of text: "Employee Record Update" and "Employee Record not exist !!!!!". The browser's taskbar at the bottom shows the system clock as 09:11 on 12-07-2023.



>>create database practical;

```
mysql> use practical
Database changed
```

```
mysql> create table emp(
    -> empid varchar(10),
    -> ename varchar(20),
    -> salary double,
    -> age int);
Query OK, 0 rows affected (0.07 sec)
```

```
mysql> select * from emp;
+-----+-----+-----+-----+
| empid | ename | salary | age |
+-----+-----+-----+-----+
| 1     | aaa   | 221234 | 11  |
| 2     | bbb   | 334567 | 22  |
| 3     | ccc   | 44454  | 33  |
| 4     | ddd   | 55123  | 44  |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

Practical 6

Aim: Currency converter Program.

HTML Code:index.html

```
<html>
<head>
<title>Currency Converter</title>
</head>
<body>
<form action="NewServlet">
Enter Amount <input type="text" name="amt"><br>
Select Conversion Type
<input type="radio" name="type" value="r2d" checked>Rupees to Dollar
<input type="radio" name="type" value="d2r">Dollar to Rupees<br>
<input type="reset"><input type="submit" value="CONVERT">
</form>
</body>
</html>
```

Servlet 1 code: NewServlet.java

```
package mypack;
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import javax.ejb.EJB;
import mybeans.ccbeans;
public class NewServlet extends HttpServlet {
```

```

    @EJB ccbeans obj;

    public void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();
        double amt = Double.parseDouble(request.getParameter("amt"));
        if(request.getParameter("type").equals("r2d"))
        {
            out.println("<h1>"+amt+ " Rupees = "+obj.r2Dollor(amt)+" Dollors</h1>");
        }
        if(request.getParameter("type").equals("d2r"))
        {
            out.println("<h1>"+amt+ " Dollors = "+obj.d2Rupees(amt)+" Rupees</h1>");
        }
    }
}

```

Servlet 2 Code: ccbeans.java

```

package mybeans;

import javax.ejb.Stateless;

@Stateless

public class ccbeans {

    public ccbeans(){}

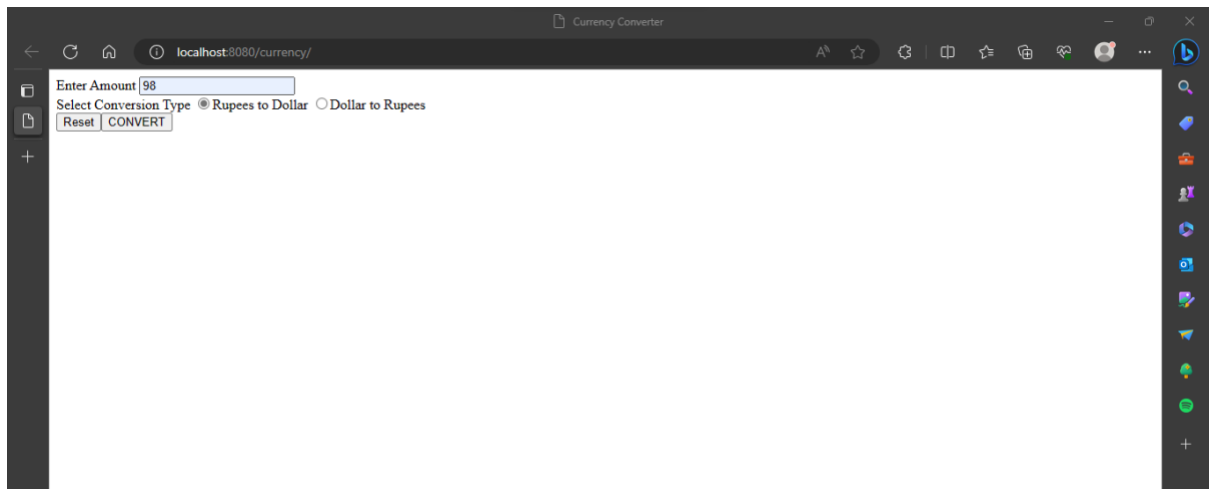
    public double r2Dollor(double r){ return r/82.04; }

    public double d2Rupees(double d) {return d*82.04;}

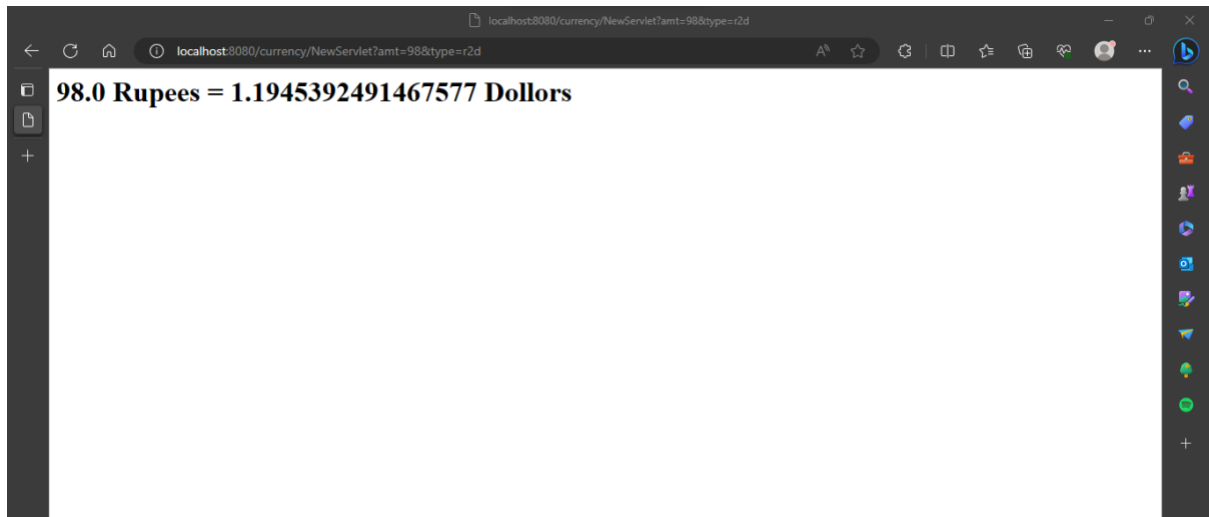
}

```

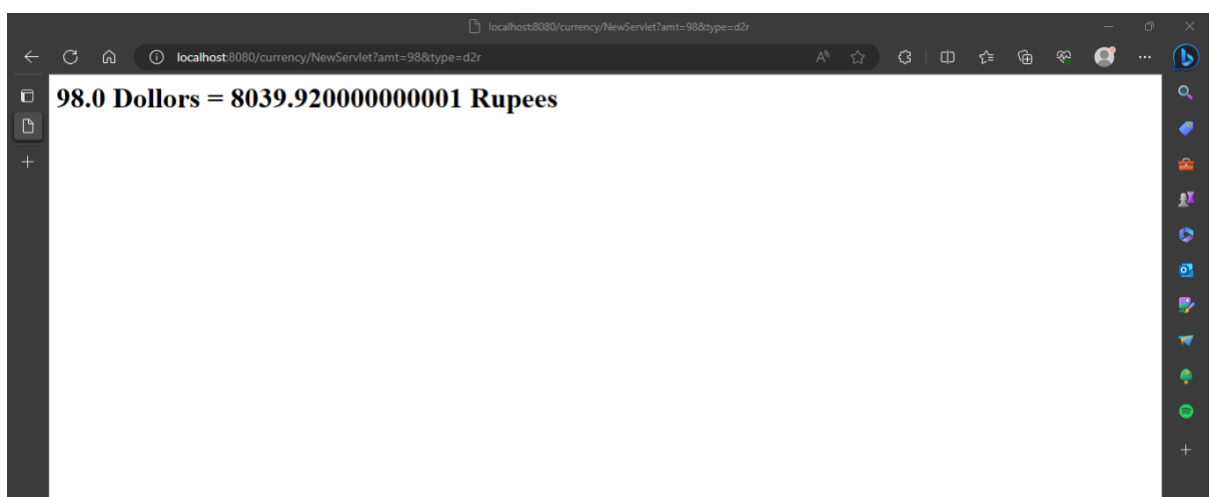
Output:



A screenshot of a web browser displaying a currency converter application. The browser's address bar shows the URL `localhost:8080/currency/`. The application interface includes a text input field labeled "Enter Amount" containing the value "98". Below the input field, there is a label "Select Conversion Type" followed by two radio buttons: "Rupees to Dollar" (which is selected) and "Dollar to Rupees". At the bottom of the form, there are two buttons: "Reset" and "CONVERT". The browser's sidebar on the left shows a file explorer view, and the right sidebar contains various utility icons.



A screenshot of the same web browser showing the result of the conversion. The address bar now displays `localhost:8080/currency/NewServlet?amt=98&type=r2d`. The main content area of the browser shows the text **98.0 Rupees = 1.1945392491467577 Dollors**. The application's sidebar and right-hand utility icons remain visible.



A screenshot of the web browser showing the result of converting 98.0 Dollars to Rupees. The address bar displays `localhost:8080/currency/NewServlet?amt=98&type=d2r`. The main content area shows the text **98.0 Dollors = 8039.920000000001 Rupees**. The application's sidebar and right-hand utility icons are still present.

Practical7

Aim::Use of Request Dispatcher to welcome user

HTML Code: index.html

```
<html>
<head>
<title>prat 1c</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body bgcolor="lightblue">
<center>
<form method="post" action="NewServlet">
    User name<input type="text" name="t1"><br>
    Password<input type="password" name="p1"><br>
<input type="submit">
</form>
</center>
</body>
</html>
```

Servlet 1 Code:NewServlet

```
package mypack;
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.RequestDispatcher;
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 = "Checklogin", urlPatterns = {"/Checklogin"})
public class NewServlet extends HttpServlet {
    protected void processRequest(HttpServletRequest request,
        HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();
        out.println("<!DOCTYPE html>");
        out.println("<html>");
        out.println("<head>");
        out.println("<title>Servlet Checklogin</title>");
        out.println("</head>");
        out.println("<body>");
        String p=request.getParameter("p1");
        if(p.equals("root"))
        {
            RequestDispatcher rd=request.getRequestDispatcher("Welcome");
            rd.forward(request, response);
        }
        else
        {
            RequestDispatcher rd=request.getRequestDispatcher("index.html");
            out.println("Invalid Login");
        }
    }
}

```

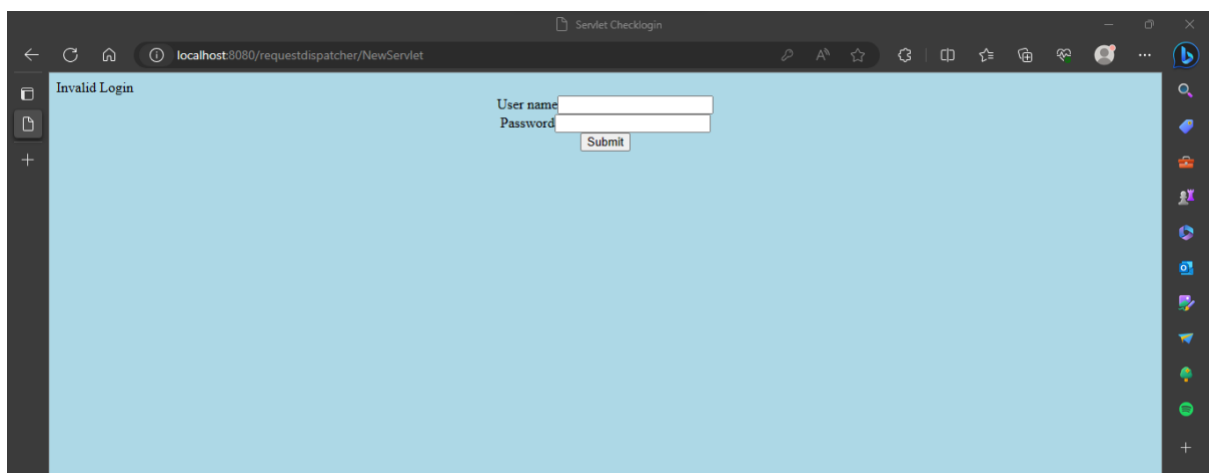
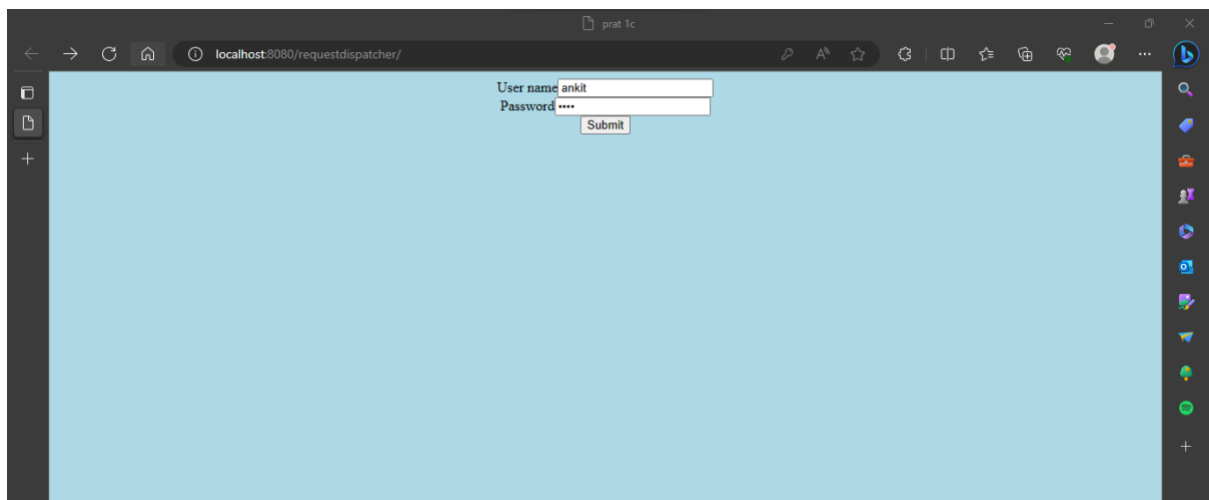
```
rd.include(request, response);  
    }  
out.println("</body>");  
out.println("</html>");  
    }  
}
```

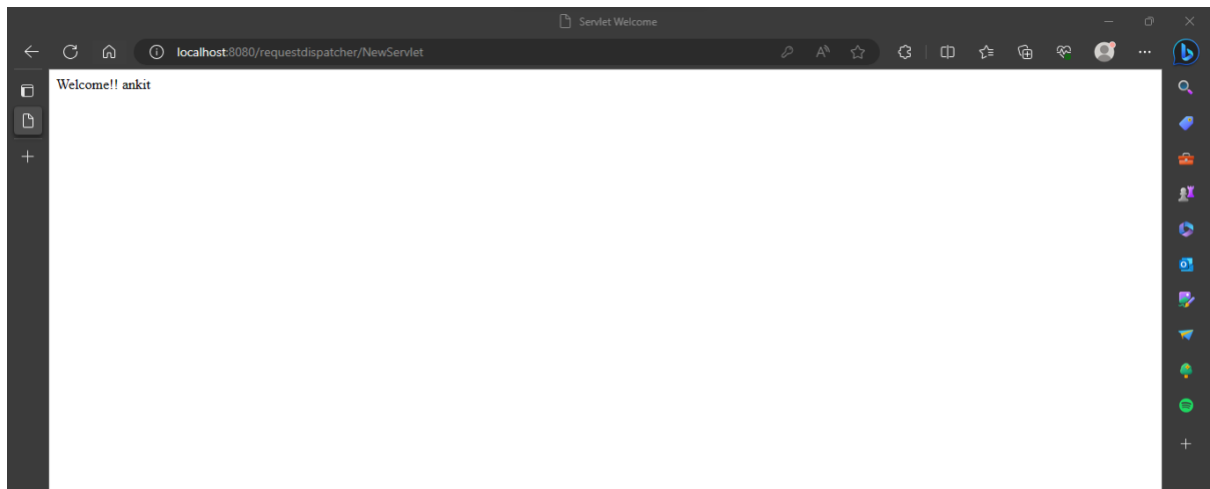
Servlet 2 Code: welcome.java

```
package mypack;  
  
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 = "Welcome", urlPatterns = {"/Welcome"})  
public class welcome extends HttpServlet {  
    protected void processRequest(HttpServletRequest request,  
        HttpServletResponse response)  
        throws ServletException, IOException {  
        response.setContentType("text/html;charset=UTF-8");  
        PrintWriter out = response.getWriter();  
  
        out.println("<!DOCTYPE html>");  
        out.println("<html>");
```

```
out.println("<head>");
out.println("<title>Servlet Welcome</title>");
out.println("</head>");
out.println("<body>");
out.println("Welcome!! "+ request.getParameter("t1"));
out.println("</body>");
out.println("</html>");
    }
}
```

Output:





Practical 8

Aim: Working with JSTL.

HTML Code: index.html

```
<html>
<head>
<title>JSP Page</title>
</head>
<body>
<h1>hello world!</h1>
<form action="newjsp.jsp">
fname:<input type="text" name="ufname"/><br>
lname:<input type="text" name="ulname"/><br>
<input type="submit" value="click"/>
</form>
</body>
</html>
```

JSP Code:newjsp.java

```
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>JSP Page</title>
</head>
<body>
<b>Welcome ${param.ulname} ${param.ufname}</b><br>
<h1>Hello World! hihihii m jsp</h1><br>
```

```
<h1>get sum maths here</h1><br>
```

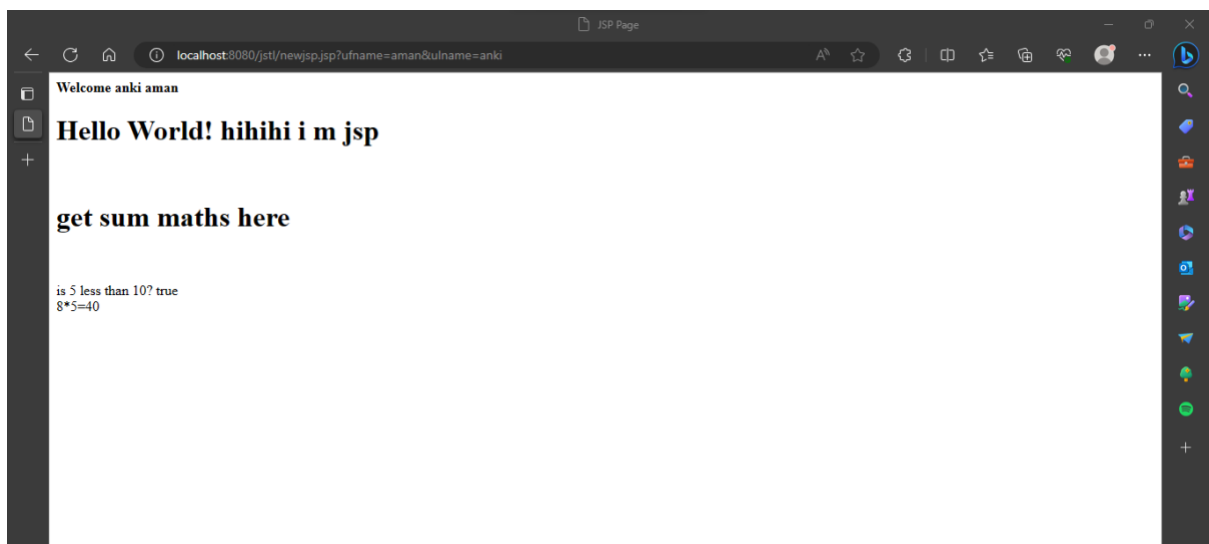
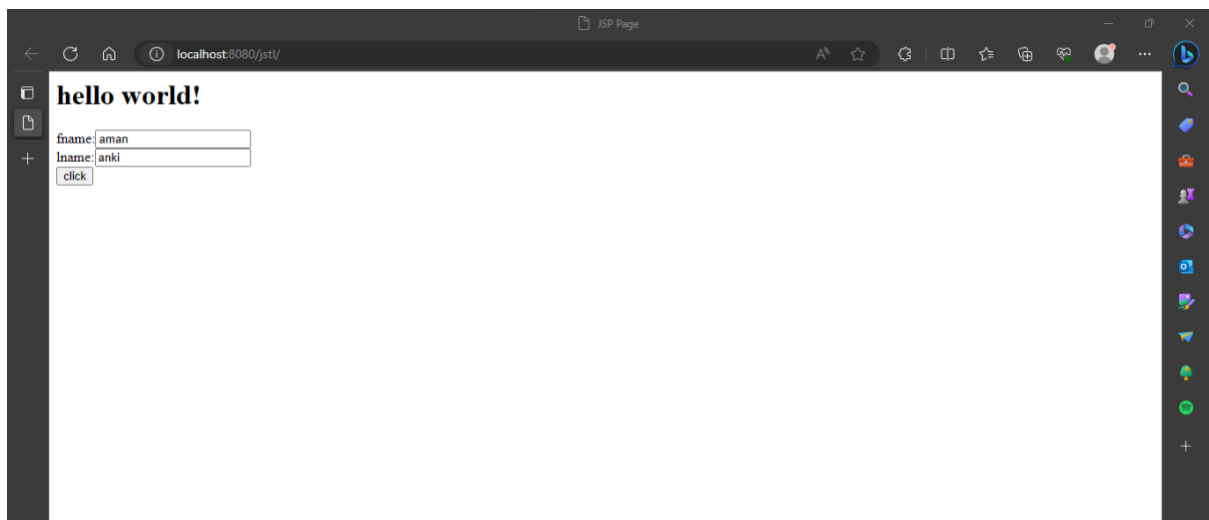
```
<p>is 5 less than 10? ${5<10}<br>
```

```
8*5=${8*5}<br></p>
```

```
</body>
```

```
</html>
```

Output:



Practical 9

Aim: To view data from database after submitting..

HTML Code: index.html

```
<html>

<body>

<form action="Newservlet" method="post">

    User name :<input type="text" name="uname"><br>
    Password :<input type="password" name="pw"><br>
    Email Id :<input type="text" name="email"><br>
    Country :<select name="coun">
        <option>select...
        <option> India
        <option> Bangladesh
        <option> Bhutan
        <option> Canada
        <option>russia
    </select><br>
    <input type="submit" value=" Register">

</form>

</body>

</html>
```

Servlet Code:NewServlet.java

```
package com.test;

import java.io.*;
import java.sql.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class Newservlet extends HttpServlet

{ public void doPost(HttpServletRequest request, HttpServletResponse
response) throws

IOException, ServletException

{ Connection con=null;

PreparedStatementps=null;

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

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

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

String country=request.getParameter("coun");

try

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

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

out.println("connection done successfully...");

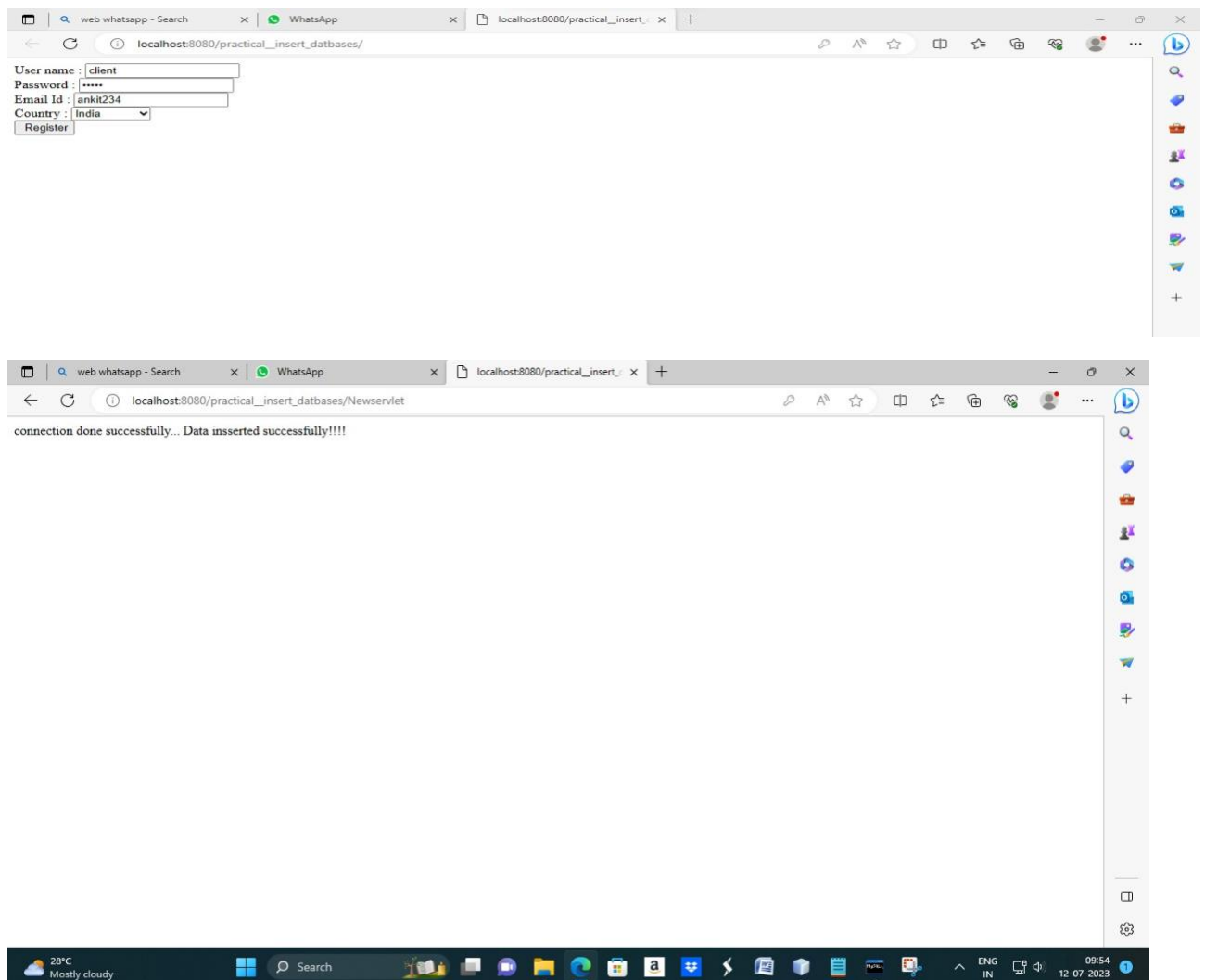
ps=con.prepareStatement("insert into user values (?, ?, ?, ?)");

ps.setString(1,uname);

ps.setString(2,pw);
```

```
ps.setString(3,email);  
ps.setString(4,country);  
ps.execute();  
out.print("Data inserted successfully!!!!");  
}  
catch(Exception e) { out.println(e); }  
out.println("<b>"+<b>");  
}  
}
```

Output:



>>create database practical;

```
mysql> use practical
Database changed
```

```
mysql> create table user(
->  uname varchar(10),
->  pw varchar(10),
->  email varchar(30),
->  country varchar(10));
Query OK, 0 rows affected (0.08 sec)
```

```
mysql> select * from user;
+-----+-----+-----+-----+
| uname | pw   | email          | country |
+-----+-----+-----+-----+
| aman  | 1234 | aman@gmail.com | india   |
+-----+-----+-----+-----+
```

```
mysql> select * from user;
+-----+-----+-----+-----+
| uname | pw       | email          | country |
+-----+-----+-----+-----+
| aman  | 1234     | aman@gmail.com | india   |
| asd   | sdvfsgdf | sdfgvsd        | India   |
| client | 12345    | ankit234       | India   |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

Practical 10

Aim: Register user in database(Room booking).

HTML CODE: index.html

```
<html>

<head>

<title></title>

</head>

<body>

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

Select A room Type

<br>

<input type="radio" id="delux" name="txtType" value="Delux">

<label for="delux">Delux</label>

<br>

<input type="radio" id="superdelux" name="txtType" value="SuperDelux">

<label for="superdelux">Super Delux</label>

<br>

<input type="radio" id="suit" name="txtType" value="Suit">

<label for="suit">Suit</label>

<br>

Enter Your Name<input type="text" name="txtCust"><br>

Enter Mobile No.<input type="tel" name="txtMob"><br>

<button type="reset">Reset</button><br><button

type="submit">Submit</button>

</form>

</body></html>
```


Servlet 1 Code: pack.java

```
package mypack;

import java.io.*;

import javax.servlet.*;

import javax.servlet.http.*;

import javax.ejb.EJB;

import myBeans.RRbeans;

public class pack extends HttpServlet {

    @EJB RRbeans obj;

    public void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException{

        PrintWriter out=response.getWriter();

        String rt=request.getParameter("txtType");

        String cn=request.getParameter("txtCust");

        String cm=request.getParameter("txtMob");

        String msg = obj.roomBook(rt, cn, cm);

        out.println(msg);

    }
}
```

Servlet 2 Code: RRbeans.java

```
package myBeans;

import javax.ejb.Stateless;

import java.sql.*;

@Stateless

public class RRbeans {

    public RRbeans(){}

    public String roomBook(String rt, String cn, String cm){
```

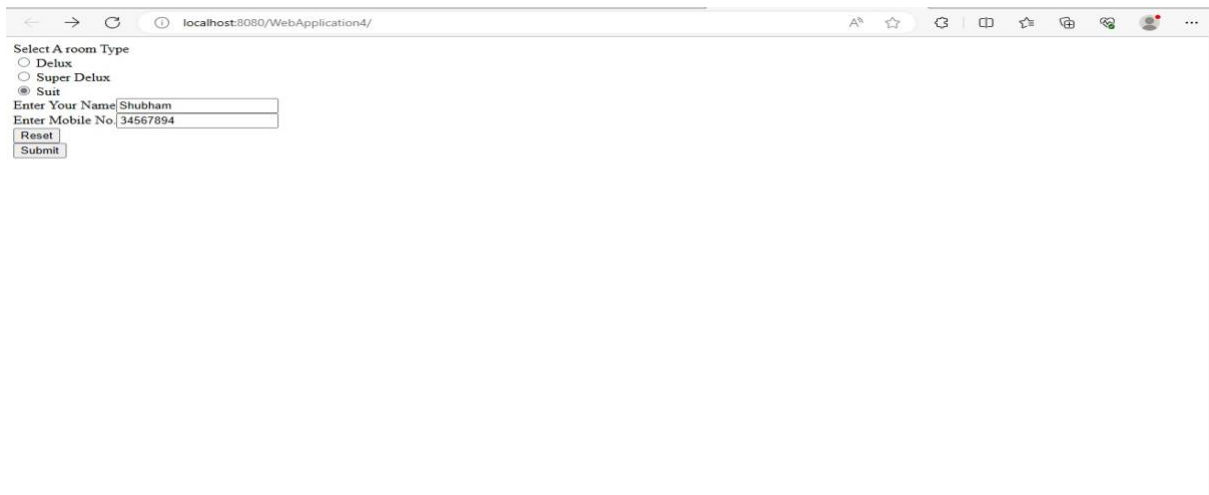
```

String msg="";
try{
Class.forName("com.mysql.jdbc.Driver");
Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/info","root","hr");
String query="select * from roombook where RoomType=? and
status='NotBooked'";
PreparedStatement pst = con.prepareStatement(query);
pst.setString(1,rt);
ResultSet rs= pst.executeQuery();
if(rs.next()){
String rno=rs.getString(1);
PreparedStatement stm1 = con.prepareStatement("update roombook set
cust=? where RoomId=? ");
PreparedStatement stm2 = con.prepareStatement("update roombook set
mob=? where RoomId=? ");
PreparedStatement stm3 = con.prepareStatement("update roombook set
status=? where RoomId=? ");
stm1.setString(1,cn); stm1.setString(2,rno);
stm2.setString(1,cm); stm2.setString(2,rno);
stm3.setString(1, "Booked"); stm3.setString(2,rno);
stm1.executeUpdate();
stm2.executeUpdate();
stm3.executeUpdate();
msg = "Room "+rno+ " Booked <br> Charges = "+rs.getString(3);
}

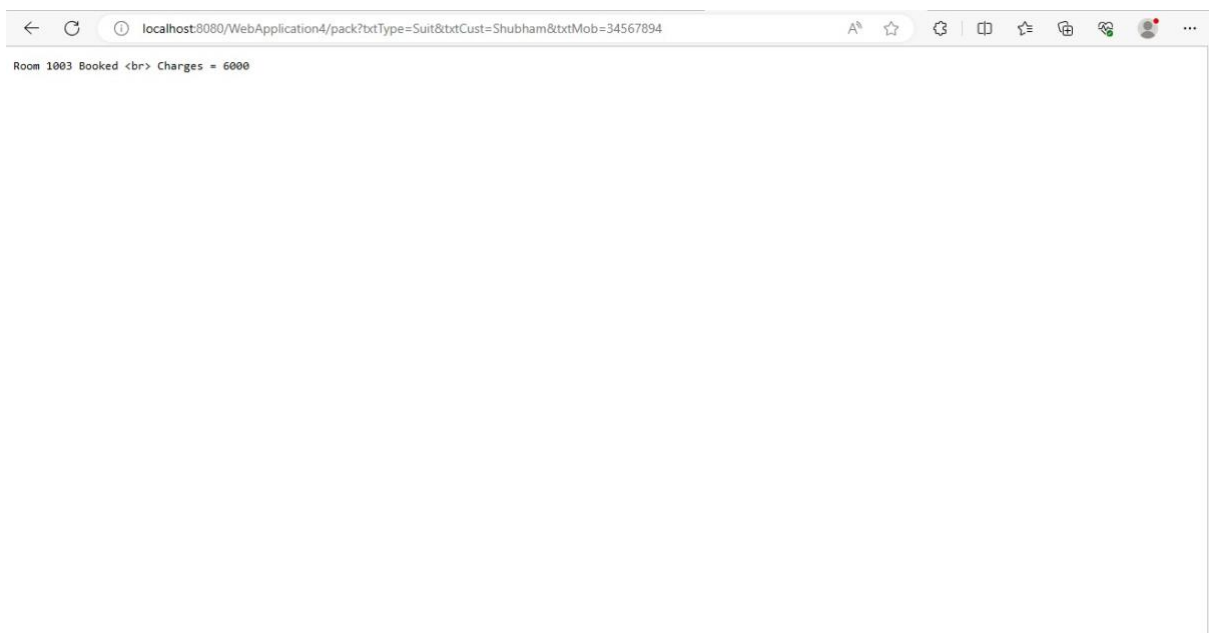
```

```
else  
{  
msg = "Room "+rt+ " currently Not available";  
}  
}catch(Exception e){msg="" +e;}  
return msg;}}
```

Output:



A screenshot of a web browser window at the address `localhost:8080/WebApplication4/`. The page contains a form for room booking. It starts with the text "Select A room Type" followed by three radio buttons: "Delux", "Super Delux", and "Suit". The "Suit" option is selected. Below the radio buttons are two text input fields: "Enter Your Name" with the value "Shubham" and "Enter Mobile No" with the value "34567894". At the bottom of the form are two buttons: "Reset" and "Submit".



A screenshot of a web browser window at the address `localhost:8080/WebApplication4/pack?txtType=Suit&txtCust=Shubham&txtMob=34567894`. The page displays the result of the booking: "Room 1003 Booked
 Charges = 6000".

- Create database info;

```
mysql> use info
Database changed
```

```
mysql> create table roombook(
-> roomid varchar(4) PRIMARY KEY,
-> roomtype varchar(20),
-> charges int(5),
-> cust varchar(20),
-> mob varchar(20),
-> status varchar(10));
Query OK, 0 rows affected (0.14 sec)
```

```
mysql> insert into roombook
-> values("1003", 'Suit', 6000, '', '', 'NotBooked');
Query OK, 1 row affected (0.03 sec)
```

```
mysql> insert into roombook
-> values("1003", 'Suit', 6000, '', '', 'NotBooked');
Query OK, 1 row affected (0.03 sec)
```

```
mysql> insert into roombook
-> values("1002", 'SuperDelux', 9000, '', '', 'NotBooked');
Query OK, 1 row affected (0.02 sec)
```

```
mysql> select * from roombook;
+-----+-----+-----+-----+-----+-----+
| roomid | roomtype | charges | cust | mob | status |
+-----+-----+-----+-----+-----+-----+
| 1001 | Delux | 5000 | | | NotBooked |
| 1002 | SuperDelux | 9000 | | | NotBooked |
| 1003 | Suit | 6000 | | | NotBooked |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> select * from roombook;
+-----+-----+-----+-----+-----+-----+
| roomid | roomtype | charges | cust | mob | status |
+-----+-----+-----+-----+-----+-----+
| 1001 | Delux | 5000 | | | NotBooked |
| 1002 | SuperDelux | 9000 | Shubham | | NotBooked |
| 1003 | Suit | 6000 | Shubham | 34567894 | Booked |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

Practical 11

Aim: Validating user by JSP.

Html code: index.html

```
<html>
<head>
<title>User Information Page</title>
</head>
<body>
<form action="validate.jsp">
Enter Your Name<input type="text" name="name" ><br>
Enter Your Age<input type="text" name="age" ><br>
Select Hobbies
<input type="checkbox" name="hob" value="Singing">Singing
<input type="checkbox" name="hob" value="Reading">Reading Books
<input type="checkbox" name="hob" value="Football">Playing Football<br>
Enter E-mail<input type="text" name="email" ><br>
Select Gender
<input type="radio" name="gender" value="male">Male
<input type="radio" name="gender" value="female">Female
<input type="radio" name="gender" value="other">Other<br>
<input type="hidden" name="error" value="">
<input type="submit" value="Submit Form">
</form>
</body>
</html>
```

JSP code: Validate.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"
import="mypack.*" %>

<html><head><title>JSP Page</title></head>

<body>

<h1>Validation Page</h1>

<jsp:useBean id="obj" scope="request"
class="mypack.CheckerBean" >

<jsp:setProperty name="obj" property="*" />

</jsp:useBean>

<%if (obj.validate())

{ %>

<jsp:forward page="successful.jsp" />

<% }

else {%>

<jsp:include page="index.html" />

<}%}%>

<%=obj.getError() %>

</body>

</html>
```

Servlet code: CheckerBean.java

```
package mypack;

public class CheckerBean {

    private String name, age, hob, email, gender, error;

    public CheckerBean(){error="";}

    public void setName(String n){name=n;}

    public void setAge(String a){age=a;}

    public void setHob(String h){hob=h;}

    public void setEmail(String e){
        email=e;
    }

    public void setGender(String g){gender=g;}

    public void setError(String e){error=e;}

    public String getName(){return name;}

    public String getAge(){return age;}

    public String getHob(){return hob;}

    public String getEmail(){return email;}

    public String getGender(){return gender;}

    public String getError(){return error;}

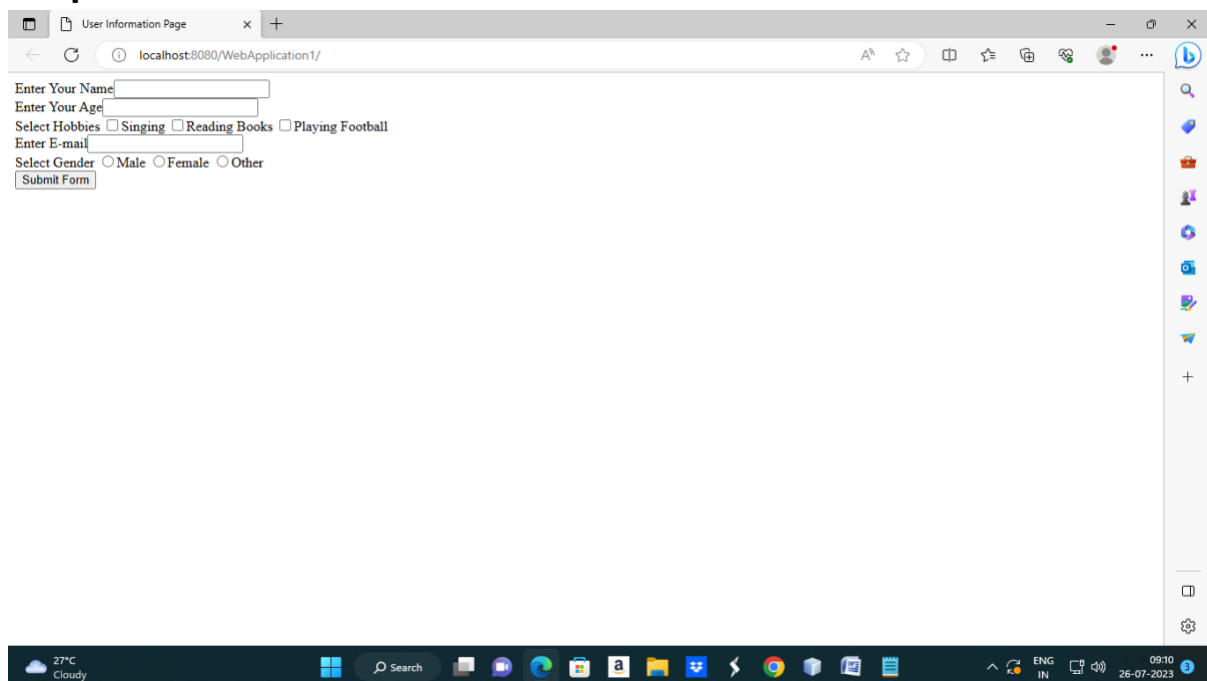
    public boolean validate(){
        boolean res=true;

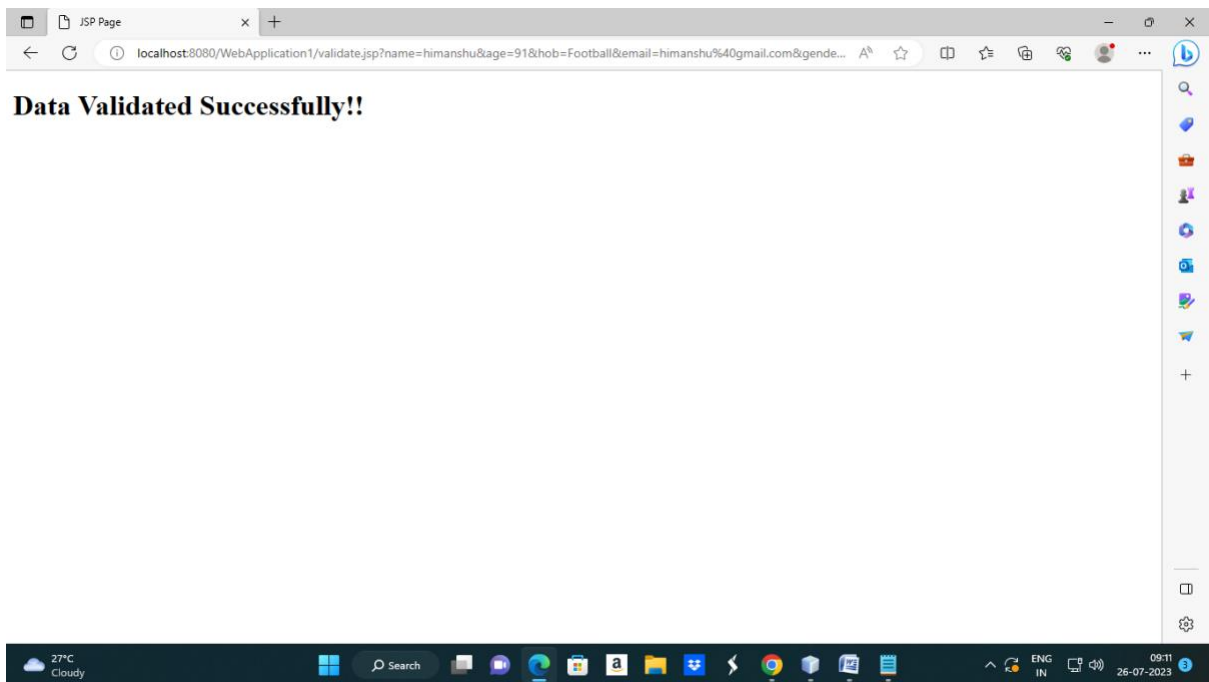
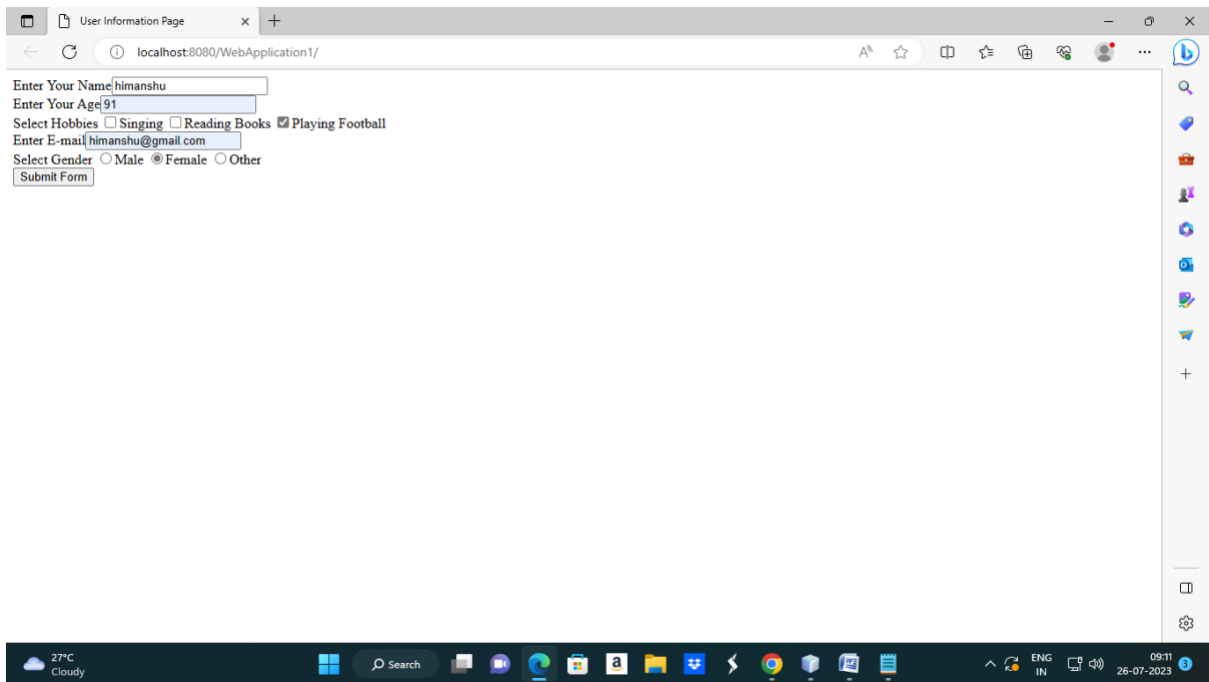
        if(name.trim().equals("")) {error+="
```

JSP2 Code: successful.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>Data Validated Successfully!!</h1>
</body>
</html>
```

Output:





Practical 12

Aim: Create a registration and login JSP application to register and authenticate the user based on username and password using JDBC.

Html code: index.html

```
<html><head><title>New User Registration Page</title></head>
<body>
<form action="register.jsp" >
<h1> New User Registration Page</h1>
Enter User Name <input type="text" name="txtName" ><br>
Enter Password <input type="password" name="txtPass1" ><br>
Re-Enter Password<input type="password" name="txtPass2" ><br>
Enter Email<input type="text" name="txtEmail" ><br>
Enter Country Name <input type="text" name="txtCon" ><br>
<input type="reset" ><input type="submit" value="REGISTER" >
</form>
</body>
</html>
```

JSP code: register.jsp

```
<%@page contentType="text/html" import="java.sql.*"%>
<html><body>
<h1>Registration JSP Page</h1>
<%
String uname=request.getParameter("txtName");
String pass1 = request.getParameter("txtPass1");
String pass2 = request.getParameter("txtPass2");
String email = request.getParameter("txtEmail");
String ctry = request.getParameter("txtCon");
if(pass1.equals(pass2)){
try{
Class.forName("com.mysql.jdbc.Driver");
Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/test","r
oot","hr");
PreparedStatementstmt = con.prepareStatement("insert into
register values (?, ?, ?, ?, ?)");
stmt.setString(1, uname); stmt.setString(2, pass1);
stmt.setString(3, pass2); stmt.setString(4, email); stmt.setString(5,
ctry);
int row = stmt.executeUpdate();
if(row==1) { out.println("Registration Successful"); }
else {
out.println("Registration FFFFFAAIIILLLL !!!!!");
```

```
%><jsp:include page="index.html" ></jsp:include>
<%
}
}catch(Exception e){out.println(e);}
}
else
{
out.println("<h1>Password Mismatch</h1>");
%>
<jsp:include page="index.html" ></jsp:include>
<% }
%>
</body>
</html>
```

Output:

➤ create database test;

```
mysql> create table register(  
  -> uname char(10),  
  -> pass1 int(10),  
  -> pass2 int(10),  
  -> email varchar(20),  
  -> ctry char(20));  
Query OK, 0 rows affected (0.07 sec)
```

```
mysql> insert into register values('taus','9987','9987','taus@gmail.com','india');  
Query OK, 1 row affected (0.04 sec)  
  
mysql> select * from register;  
+-----+-----+-----+-----+-----+  
| uname | pass1 | pass2 | email          | ctry |  
+-----+-----+-----+-----+-----+  
| taus  | 9987  | 9987  | taus@gmail.com | india |  
+-----+-----+-----+-----+-----+  
1 row in set (0.00 sec)
```

New User Registration Page

Enter User Name

Enter Password

Re-Enter Password

Enter Email

Enter Country Name

Registration JSP Page

Registration Successful

```
mysql> select * from register;  
+-----+-----+-----+-----+-----+  
| uname | pass1 | pass2 | email          | ctry |  
+-----+-----+-----+-----+-----+  
| taus  | 9987  | 9987  | taus@gmail.com | india |  
+-----+-----+-----+-----+-----+  
1 row in set (0.00 sec)
```

Practical 13

Aim: Create a servlet application to Uploading File.

Code:

HTML CODE: index.html

```
<html>

<body>

<form action="fileservletapp" method="post"
enctype="multipart/form-data">

    Select File to Upload:<input type="file" name="file"
id="file">

<br>

    Destination <input type="text" value="/tmp"
name="destination">


<input type="submit" value="Upload file" name="upload"
id="upload">

</form>

</body>

</html>
```

Servlet code: NewServlet.java

```
package test;

import java.io.*;

import javax.servlet.*;

import javax.servlet.annotation.MultipartConfig;

import javax.servlet.http.*;

@MultipartConfig

public class NewServlet extends HttpServlet {

    @Override

    public void

    doPost(HttpServletRequest req, HttpServletResponse res)

    throws ServletException,

    IOException

    {

        res.setContentType("text/html");

        PrintWriter out = res.getWriter();

        String path=req.getParameter("destination");

        Part filePart=req.getPart("file");

        String filename=filePart.getSubmittedFileName();

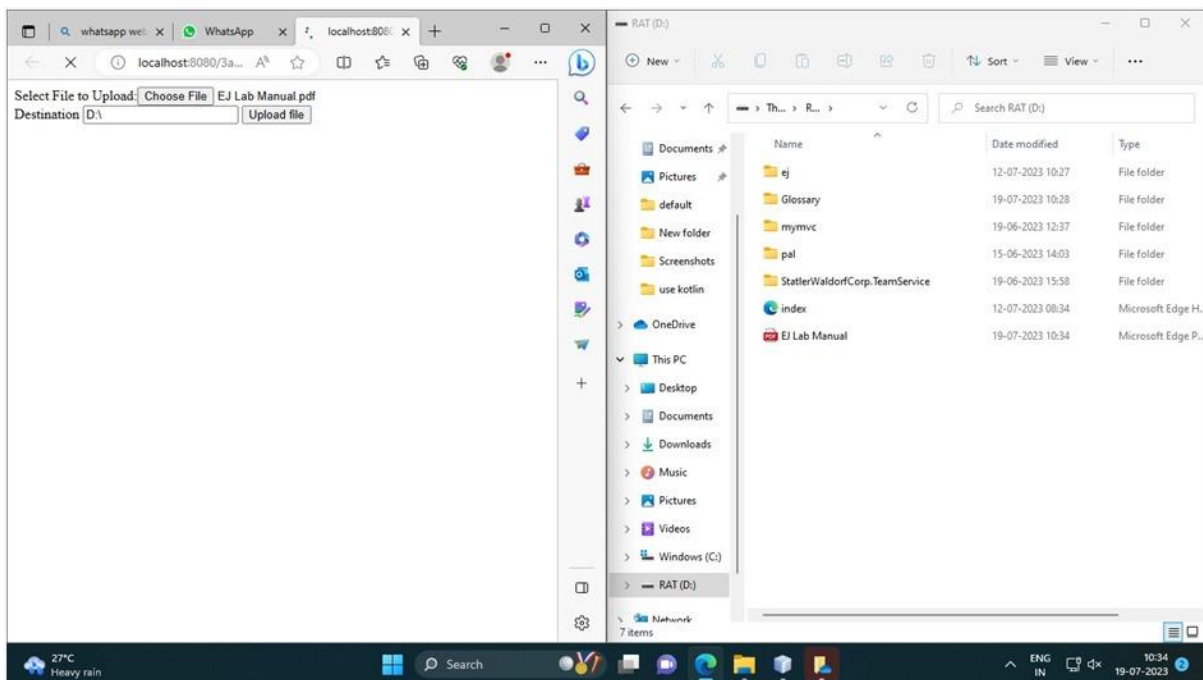
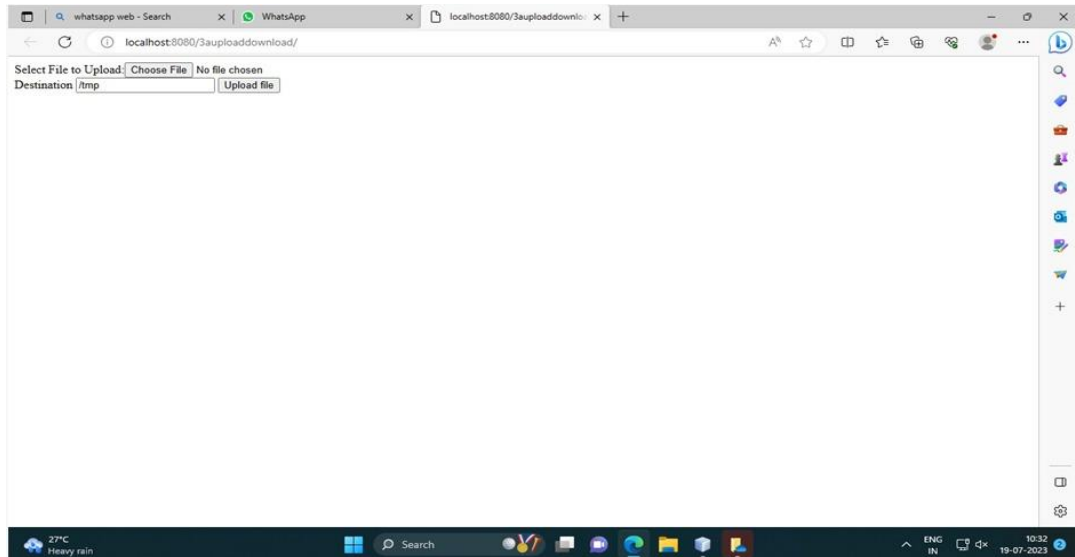
        out.print("<br><br><hr> file name: "+filename);

        OutputStream os=null;

        InputStream is=null;
```

```
try {  
    os=new FileOutputStream(new  
    File(path+File.separator+filename));  
    is=filePart.getInputStream();  
    int read=0;  
  
    while ((read = is.read()) != -1) {  
        os.write(read);  
    }  
    out.println("<br>file uploaded sucessfully...!!!");  
}  
catch(FileNotFoundException e){out.print(e);}  
}}
```


Output:



Practical 14

Aim: To download a file:

HTML CODE: index.html

```
<html>
<head>
<title>File Download Page</title>
</head>
<body>
<h1>File Download Application</h1>
Click <a
href="DownloadServlet?filename=ejm.pdf.pdf">Sample
Chapter</a>
<br/><br/>
Click <a href="DownloadServlet?filename=index.html">Table
Of Contents</a>
</body>
</html>
```

Servlet CODE:DownloadServlet.java

```
package filedownloadapp;
import java.io.IOException;
import java.io.InputStream;
import java.io.PrintWriter;
```

```
import javax.servlet.ServletContext;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class DownloadServlet extends HttpServlet {
    @Override
    public void doGet(HttpServletRequest request,
        HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("APPLICATION/OCTET-STREAM");
        String filename = request.getParameter("filename");
        ServletContext context = getServletContext();
        PrintWriter out;

        //ServletOutputStream out = response.getOutputStream();
        // any of the two works

        try (InputStream is = context.getResourceAsStream("/") +
            filename)) {
            //ServletOutputStream out =
            response.getOutputStream(); // any of the two works

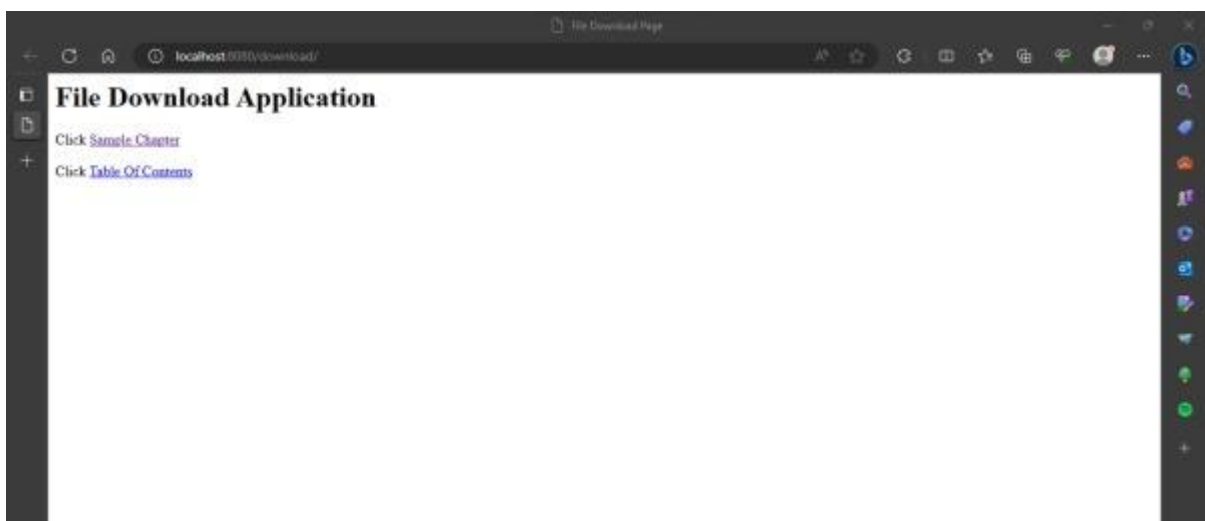
            out = response.getWriter();

            response.setHeader("Content-Disposition", "attachment;
                filename=\"" + filename + "\""); //
```

//if comment this statement then it will ask you about the editor with which you want to open the file

```
int i;  
while ((i=is.read()) != -1) {  
out.write(i);  
} }  
out.close();  
}  
}
```

Output:



Practical 15

Aim: To Create Quiz using Servlet.

Html code: index.html

Code:

```
<html>
<head>
<title>Quiz Application</title>
</head>
<body>
<h1>Welcome to Quiz Servlet </h1>
<h1><a href="NewServlet" >CLICK TO START QUIZ</a></h1>
</body>
</html>
```

Servlet1 Code:NewServlet.java

Code:

```
package test;
import java.io.*;
import java.sql.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class NewServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse
response)
```

```
throws ServletException, IOException {
response.setContentType("text/html;charset=UTF-8");
PrintWriter out = response.getWriter();
out.println("<form action=showresult>");
try {
Class.forName("com.mysql.jdbc.Driver");
Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/qadb","
root","hr");
Statement stmt = con.createStatement();
ResultSet res = stmt.executeQuery("select * from quiz");
out.println("<table border=1 >");
int qno=0;
while(res.next()){
qno++;
out.println("<tr><td>"+res.getString(1)+"</td>");
out.println("<td>"+res.getString(2)+"</td></tr>");
out.println("<tr><td><input type=radio
name="+qno+"value="+res.getString(3)+"></td><td>"+res.getString(
3)+"</td></tr>");
out.println("<tr><td><input type=radio
name="+qno+"value="+res.getString(4)+"></td><td>"+res.getString(
4)+"</td></tr>");
out.println("<tr><td><input type=radio
name="+qno+"value="+res.getString(5)+"></td><td>"+res.getString(
5)+"</td></tr>");
```

```

out.println("<tr><td><input type=radio
name="+qno+"value="+res.getString(6)+"></td><td>"+res.getString(
6)+"</td></tr>");
}
}
catch(Exception e)
{out.println(e);}
out.println("</table>");
out.println("<input type=reset >");
out.println("<input type=submit value=SUBMIT >");
out.println("</form>");
}
}

```

Servlet2 code:showresult.java

Code:

```

package test;

import java.io.*;
import java.sql.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class showresult extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse
response)

throws ServletException, IOException {

```

```
response.setContentType("text/html;charset=UTF-8");
PrintWriter out = response.getWriter();
try {
    Class.forName("com.mysql.jdbc.Driver");
    Connection con =
    DriverManager.getConnection("jdbc:mysql://localhost:3306/qadb",
    root,"hr");
    Statement stmt = con.createStatement();
    ResultSet res = stmt.executeQuery("select ans from quiz");
    int count =0, qno=0;
    while(res.next()){
        if(res.getString(1).equals(request.getParameter(">"+(++qno))))
        {    count++;
            out.println("<h1>Correct </h1>");
        }
        else {
            out.println("<h1>Incorrect </h1>");
        }
    }
    out.println("<h1>Your Score is "+count+" </h1>");
}
catch(Exception e) {
    out.println(e);
}}
```


SQL commands

```
mysql> create database qadb;  
Query OK, 1 row affected (0.05 sec)
```

```
mysql> use qadb;  
Database changed
```

```
mysql> create table quiz(  
  -> qno varchar(5) PRIMARY KEY,  
  -> question varchar(100),  
  -> op1 varchar(50),  
  -> op2 varchar(50),  
  -> op3 varchar(50),  
  -> op4 varchar(50),  
  -> ans varchar(50));  
Query OK, 0 rows affected (0.11 sec)
```

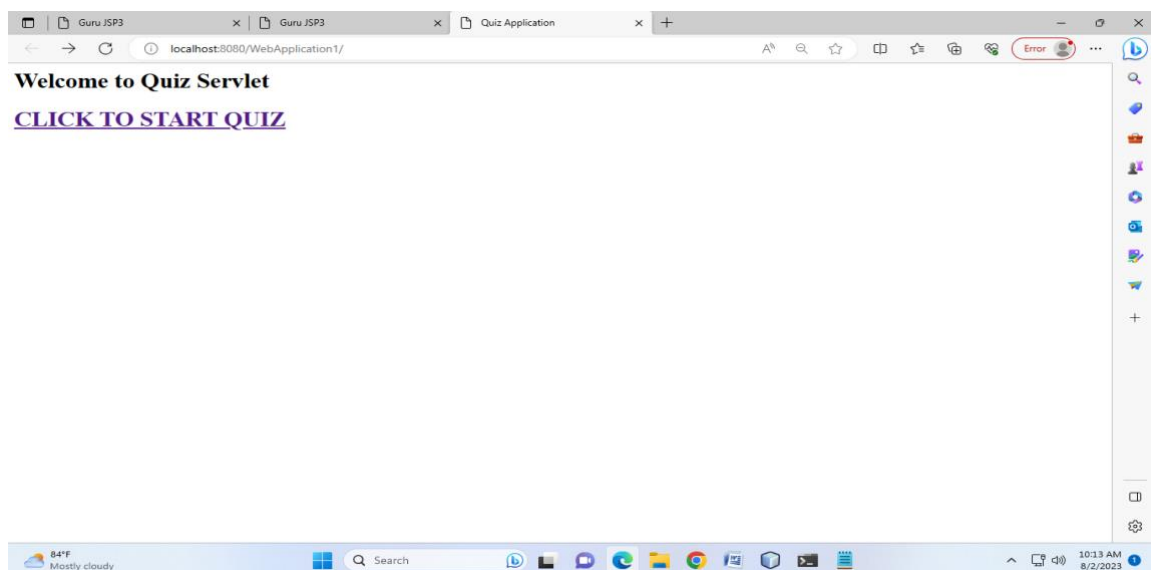
```
mysql> insert into quiz  
-> values('001','what is the capital of india','New Delhi','chennai','mumbai','kolkata','New Delhi');  
Query OK, 1 row affected (0.05 sec)  
  
mysql> insert into quiz  
-> Values('002','who was the first president of india??','Dr Rajendra prasad','Dr s Radhakrishana','Ram Nath Movind','vv giri','Dr Rajendra prasad');  
Query OK, 1 row affected (0.03 sec)  
  
mysql> insert into quiz  
-> Values('003','what is ORM','Object Ration Mean','object Rotation measure',  
  -> 'object Realetion mapping','oracle request management','object relation mapping');  
Query OK, 1 row affected (0.03 sec)  
  
mysql> insert into quiz  
-> Values('004','Unit of energy____','Dozen','kilo meter','joule','hertz','joule');  
Query OK, 1 row affected (0.03 sec)  
  
mysql> insert into quiz  
-> values('005','___ is the smallest memory unit.','bit','byte','Byte','Giga Byte','bit');  
Query OK, 1 row affected (0.04 sec)
```

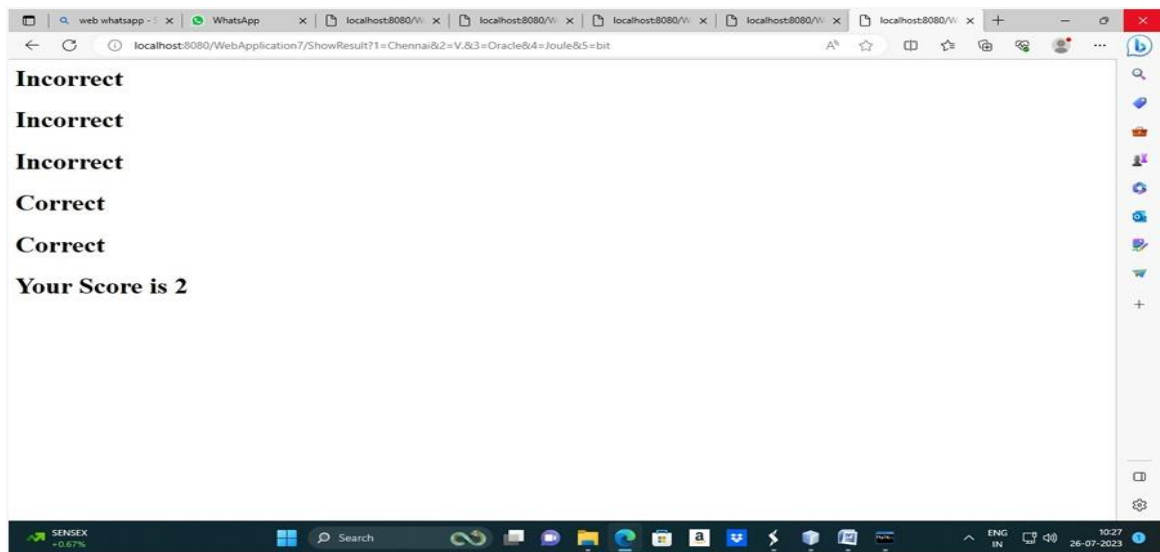
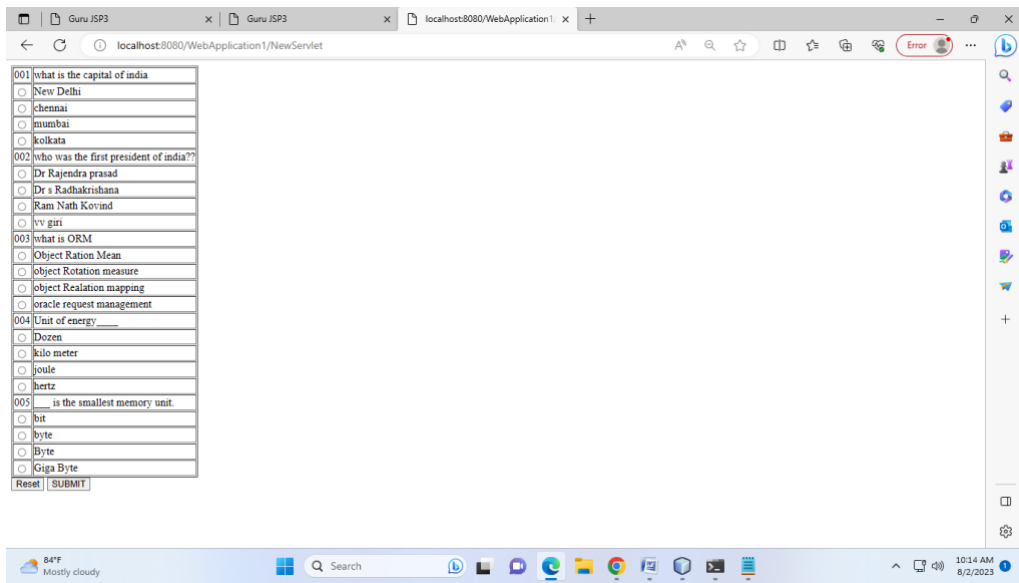
```
mysql> select * from quiz;
```

qno	question	op1	op2	op3	op4	ans
001	what is the capital of india	New Delhi	chennai	mumbai	kolkata	New Delhi
002	who was the first president of india??	Dr Rajendra prasad	Dr s Radhakrishana	Ram Nath Movind	vv giri	Dr Rajendra prasad
003	what is ORM	Object Ration Mean	object Rotation measure	object Realetion mapping	oracle request management	object relation mapping
004	Unit of energy____	Dozen	kilo meter	joule	hertz	joule
005	___ is the smallest memory unit.	bit	byte	Byte	Giga Byte	bit

5 rows in set (0.00 sec)

Output:





Practical 16

Aim: Expression language by using JSP.

JSP code: newjsp.jsp

Code:

```
<%@ page language="java" contentType="text/html;
charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html;
charset=ISO-8859-1">
<title>Guru JSP3</title>
</head>
<body>
<%! int week=8; %>
<% switch(week){
case 1:
out.println("Sunday");
    break;
case 2:
out.println("Monday");
```

```
        break;
case 3:
out.println("Tuesday");
        break;
case 4:
out.println("wednesday");
        break;
case 5:
out.println("Thursday");
        break;
case 6:
out.println("Friday");
        break;
case 7:
out.println("Saturday");
        break;
default:
out.println("Invalid Input");
break;}
%>
</body>
</html>
```

Output:

