PRINCE SHRI VENKATESHWARA PADMAVATHY ENGINEERING COLLEGE

PONMAR, CHENNAI - 600 127.

DEPARTMENT OF

INFORMATION TECHNOLOGY

(B.TECH. – V SEMESTER)

IT8511 – WEB TECHNOLOGY LABORATORY

(2022 – 2023)

NAME : _____

REGISTER NO : _____

BRANCH : _____

COURSE : _____

PRINCE SHRI VENKATESHWARA PADMAVATHY ENGINEERINGCOLLEGE

PONMAR, CHENNAI - 600 127.

BONAFIDE CERTIFICATE

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Register No **: …….**

Semester **: …….**

Branch **: ……..**

Certified that this is a Bonafide Record of practical work done by the above student in ***IT8511 – WEB TECHNOLOGY LABORATORY*** *during the year 2022 – 2023.*

Submitted for Practical Examination held on ……

Signature of Faculty In-Charge **Signature of Principal**

INTERNAL EXAMINER **EXTERNAL EXAMINER**

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Ex No: 1	CREATING A WEBPAGE WITH IMAGE MAPS AND HOTSPOTS
Date:	

AIM:

To create a webpage with the following using HTML
• To embed an image in web page
• To fix the hot spots.
• Show all the related information when a hot spot is clicked in the map

ALGORITHM:

• Create a html file with map tag.
• Set the source attribute of the img tag to the location of the image and also set the use map attribute.
• Specify an area with name, shape and href set of the appropriate value.
• Repeat step3 as many hot spots you want to put in the map.
• Create html file for each and every hot spots the user will select the particular location it shows information about it.

PROGRAM:

/*mapping.html*/

```
<html>
<head>
<title>India Map</title>
<head>

<body bgcolor="PINK">
<font face="Monotype Corsiva" color="BLUE" size="6">
<marquee direction="left" behavior="alternate">INDIA MAP
</marquee>
</font>
<hr size="6" color="RED">

<map name="pagemap">
<area shape="rect" coords="194,151,247,219" href="map1.html">
<area shape="rect" coords="291,268,384,337" href="map2.html">
<area shape="rect" coords="100,337,197,384" href="map3.html">
<area shape="rect" coords="236,543,344,577" href="map4.html">
```

```
</map>

<img src="india.bmp" usemap="#pagemap">
</body>
<font color="#ff0000" size="5">
<p><b>Hints:</b>
<i>Click on the Name of the Cities in the map to know itsdescription</i></p>
</html>
```

/*map1.html*/

```
<html>
<body bgcolor="SKYBLUE">
<font face="Monotype Corsiva" size="18" color="RED">
<center><b><i><tt>Delhi is the capital of our INDIA<br> and <br>More IT companies are
Camped at Delhi</tt></i></b></center>
<a href="mapping.html">Home Page</a>
</font>
</body>
</html>
```

/*map2.html*/

```
<html>
<body bgcolor="SKYBLUE">
<font face="Times New Roman" size="18" color="RED">
<center><b><i>Calcutta is the wealthy city in WEST BENGAL<br> and <br>it has Famous
"Sunderbans Forests"</i></b></center>
<a href="mapping.html">Home Page</a>
</font></body></html>
```

/*map3.html*/

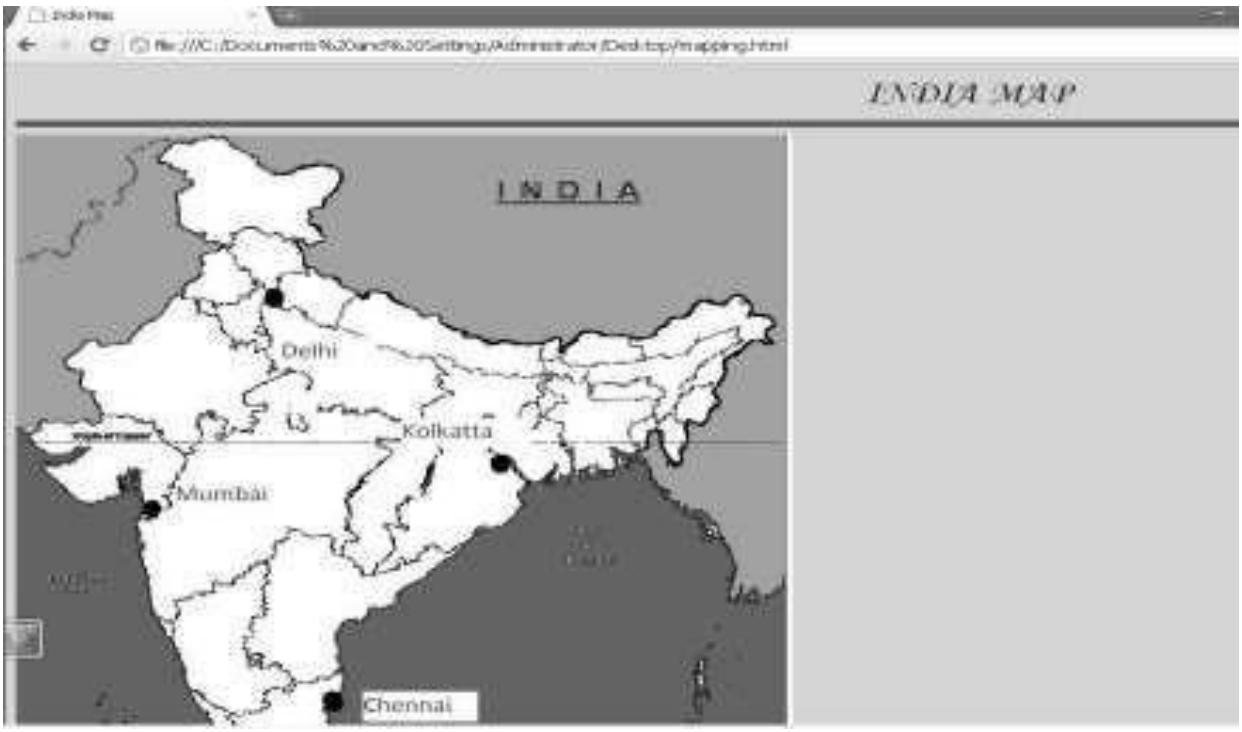
```
<html>
<body bgcolor="DARKGREEN">
<font face="Times New Roman" size="12" color="RED">
<center>MUMBAI is the capital of Maharashtra<br> and <br>it has Famous India
Gate</center>
<a href="mapping.html">Home Page</a>
</font>
</body>
</html>
```

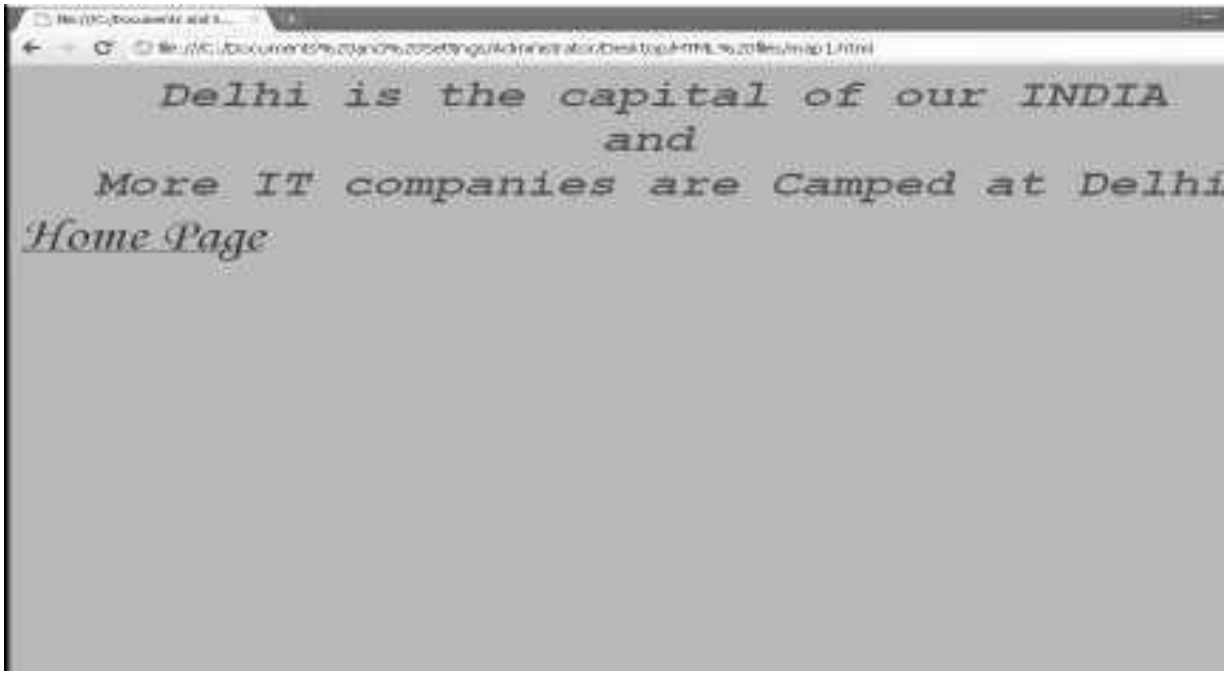
/*map4.html*/

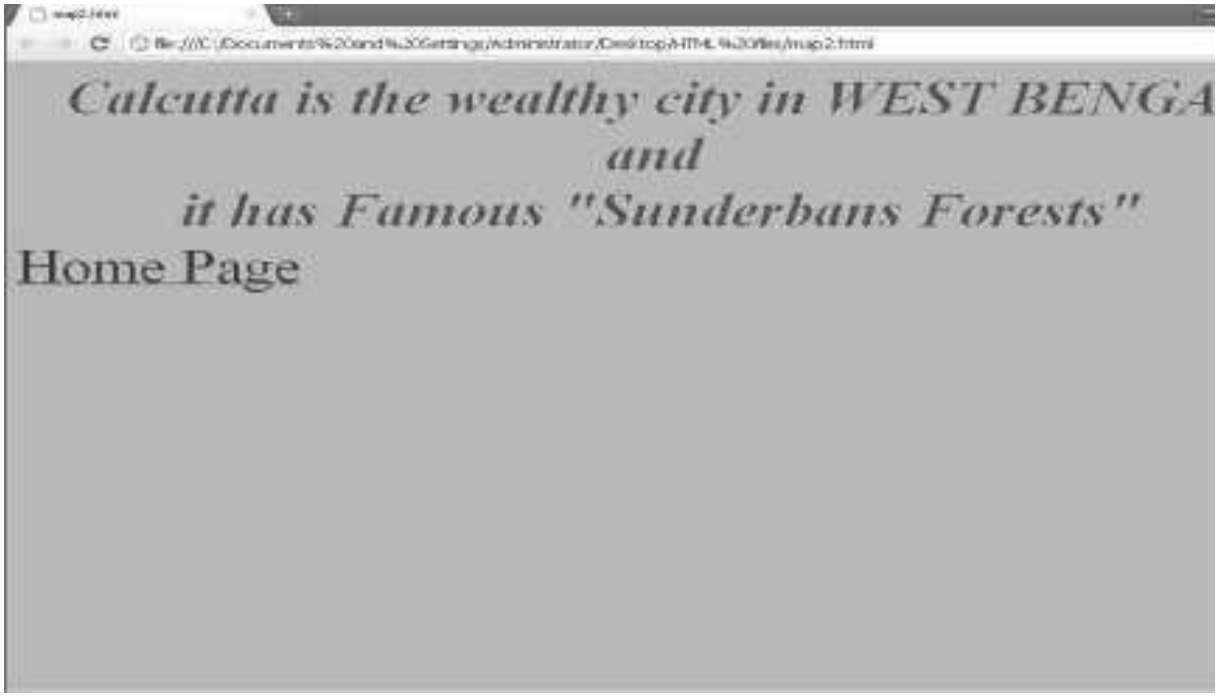
```
<html>
<body bgcolor="BLACK">
<font face="Times New Roman" size="12" color="RED">
<center>Chennai is hte capital of Tamil Nadu<br> and <br>More IT companies are camped at
```

```
Chennai</center>
<a href="mapping.html">Home Page</a>
</font></body></html>
```

OUTPUT:







RESULT:

Thus creation of an webpage using cascading style sheet has been developed successfully.

REG NO: 411720205005

Ex No:2	CREATING A WEBPAGE WITH CASCADING STYLE SHEET
Date:	

AIM:

To create a webpage using html to embedded the style sheet.

ALGORITHM:

Step1: Create html file with the style tag, inside head tag.

Step2: Set the style such as font-family, font-size, color, left etc, for the heading

h1, h2, …h6 and respectively.

Step3: Close the head tag.

Step4: Specify the heading and information required inside the body tag.

Step5: Close the opened tag.

PROGRAM:

<! DOCTYPE html PUBLIC"-////W3C//DTD XHTML 1.0 TRANSTION//EN"http://www.w3.org/TR/html1/DTD/html1 1.dtd>

<html xmlns="http://www.w3org/1999/xhtml">

<head>

<title>Embedded style sheet</title>

<style type="text/css">

h1

{

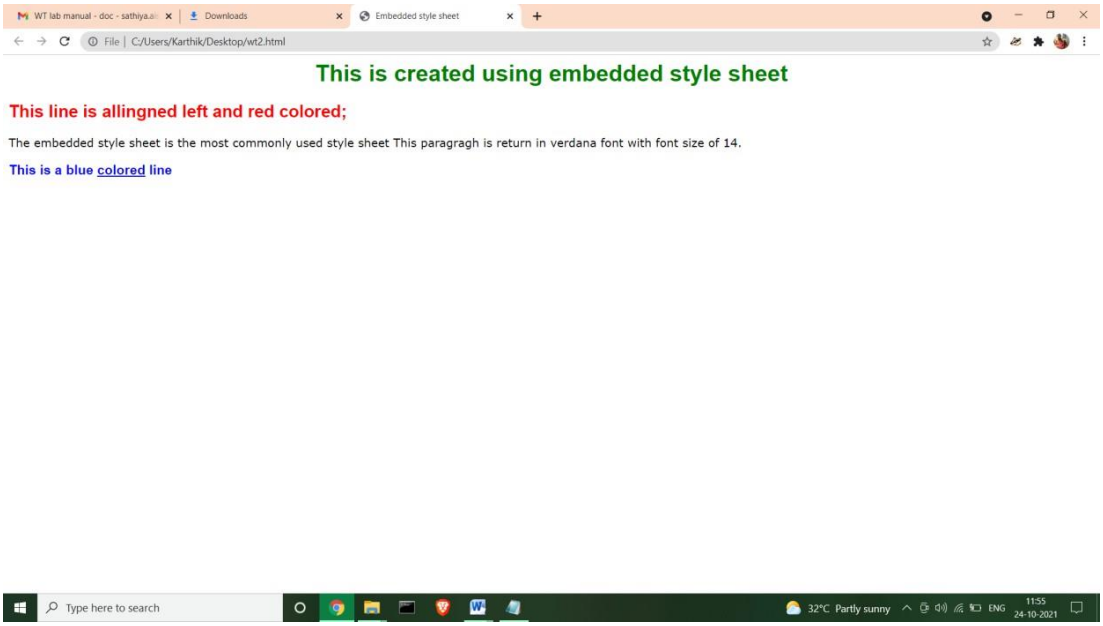
font-family:arial;

color:green;

```
}
h2
{
font-family:arial;
color:red;
left:20px
}
h3
{
font-family:arial;
color:blue;
}
p
{
font-sise:14pt;
font-family:verdana
}
</style>
</head>
<body>
<h1>
```

```
<center>This is created using embedded style sheet

</center>

</h1>

<h2>This line is allingned left and red colored;

</h2>

<p>

The embedded style sheet is the most commonly used style sheet

This paragragh is return in verdana font with font size of 14.

</p>

<h3>

This is a blue <a href="colorname.html">colored</a> line

</h3>

</body>

</html>
```

OUTPUT:



RESULT:

Thus creation of an webpage using cascading style sheet has been developed successfully.

REG NO: 411720205005

Ex No:3	VALIDATING WEB FORM CONTROLS USING DHTML
Date:	

AIM:

To develop a program for validating web form control using DHTML.

ALGORITHM:

Step1: Start the program.

Step2: Define the title within the tag.

Step3: Give the script type within the script tag.

Step4: Validate each and every column as the box with if condition.

Step5: If empty value is given or the block term is next then it is verified with certain condition.

Step6: If values is empty then a message is been displayed.

Step7: Form is designed with GUI tool is description.

Step8: All buttons are processed accordingly.

Step9: Stop the program.

PROGRAM:

//Webforms.html

```
<html>
<head>
<script type='text/javascript'>
function formValidator()
{
var firstname=document.getElementById('firstname');
var lastname=document.getElementById('lastname');
var addr=document.getElementById('addr');
var zip=document.getElementById('zip');
var Countries=document.getElementById('Countries');
var  username=document.getElementById('username');
var email=document.getElementById('email');
var dd=document.getElementById('dd');
var mm=document.getElementById('mm');
var yyyy=document.getElementById('yyyy');
var comment=document.getElementById('comment');
var password=document.getElementById('password');
if(isAlphabet(firstname,"Please enter only letters for your First name"))
{
if(isAlphabet(lastname,"Please enter only letters for your Last name"))
{
if(isNumeric(dd,"Please enter a date"))
{
if(madeSelection(mm,"Please Choose"))
{
if(isNumeric(yyyy,"Please enter a year"))
{
if(isAlphanumeric(addr,"Enter Numbers and letters only for address"))
{
if(isNumeric(zip,"please enter a valid zip code"))
{
if(madeSelection(Countries,"Please Choose"))
{
if(lengthRestriction(username,6,8))
{
if(isAlphanumeric(password,"Enter Numbers and letters only for password"))
```

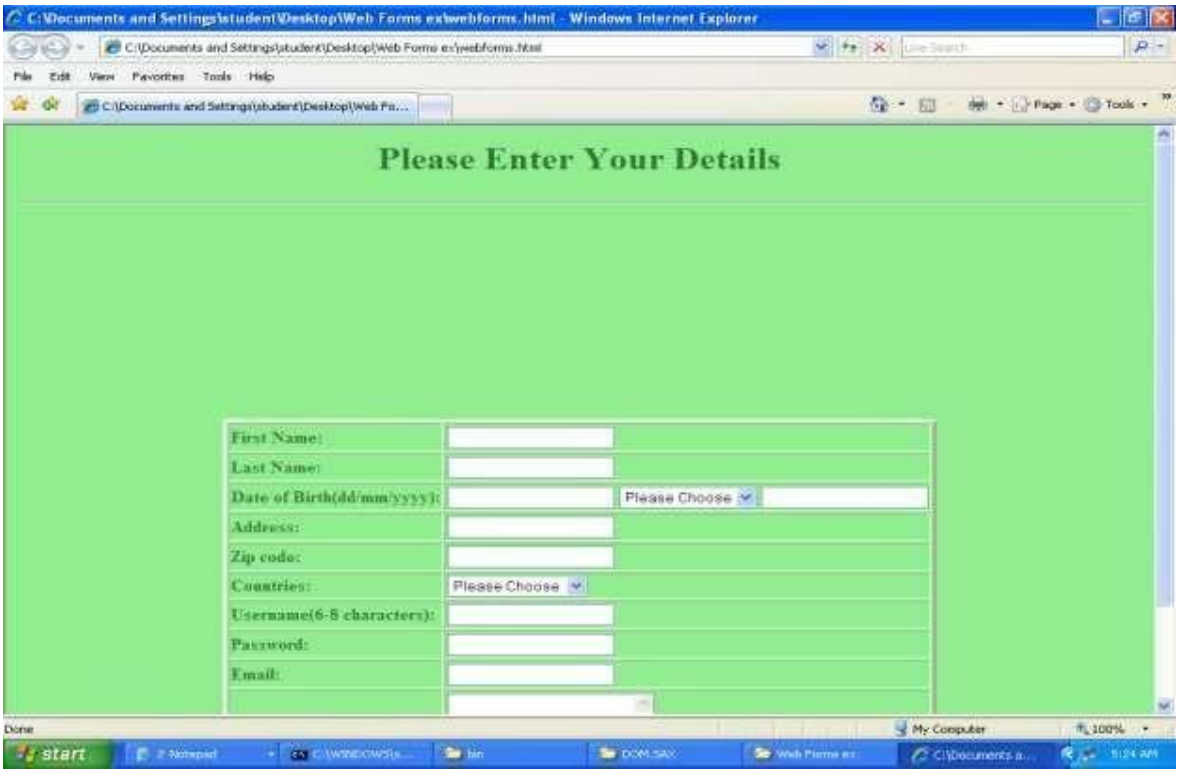
```
{
if(emailValidator(email,"Please enter a valid email address"))
{
if(notEmpty(comment,"Please fill the comment"))
{
document.write("<b><i>Thank's for submitting your details</i></b>");
alert("Successful Entry!!");
return true;
}}}}}}}}}}}
return false;
}
function notEmpty(elem,helperMsg)
{
if(elem.value.length==0)
{
alert(helperMsg);
elem.focus();
return false;
}
return true;
}
function isNumeric(elem,helperMsg)
{
var numericExpression=/^[0-9]+$/;
if(elem.value.match(numericExpression))
{
return true;
}
else
{
alert(helperMsg);
elem.focus();
return false;
}
}
function isAlphabet(elem,helperMsg)
{
var alphaExp=/^[a-zA-Z]+$/;
if(elem.value.match(alphaExp))
{
return true;
}
else
{
alert(helperMsg);
```

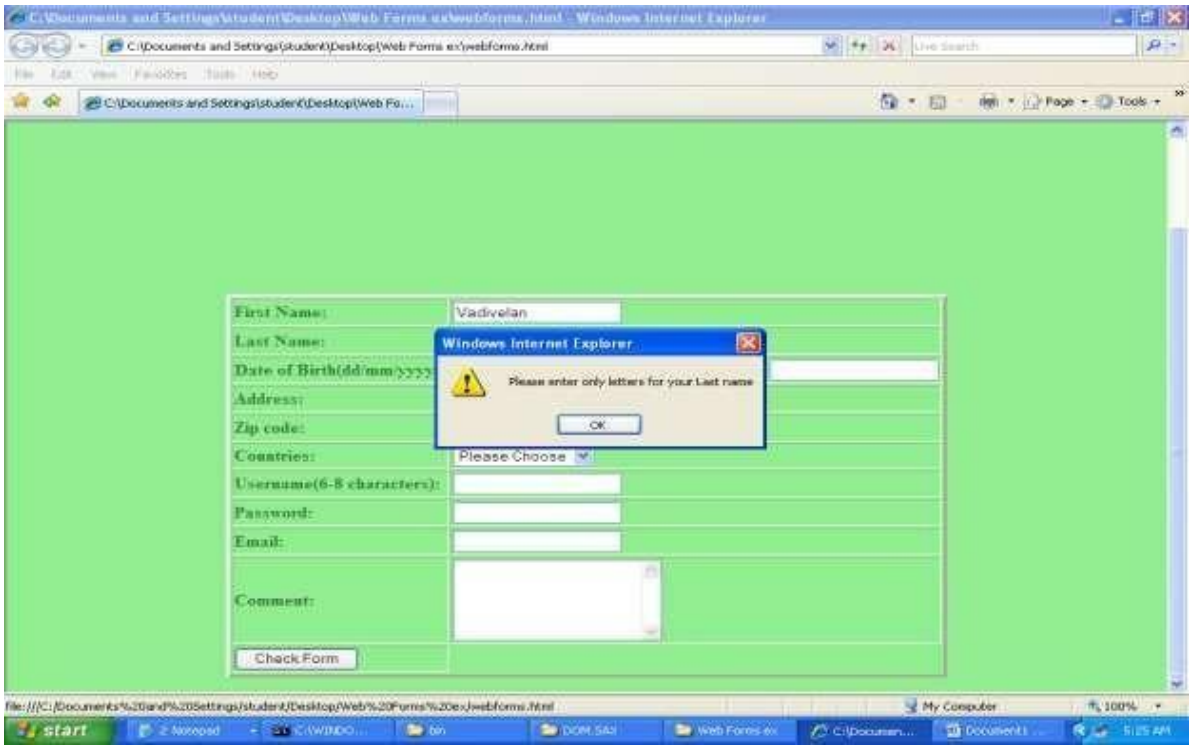
```
elem.focus();
return false;
}
}
function isAlphanumeric(elem,helperMsg)
{
var alphaExp=/^[0-9, a-z a-z, 0-9, A-Z A-Z, - 0-9 . ]+$/;
if(elem.value.match(alphaExp))
{
return true;
}
else
{
alert(helperMsg);
elem.focus();
return false;
}
}
function lengthRestriction(elem,min,max)
{
var unput=elem.value;
if(unput.length>=min&&unput.length<=max)
{
return true;
}
else
{
alert("Please enter between "+min+" and "+max+" charactters");
elem.focus();
return false;
}
}
function madeSelection(elem,helperMsg)
{
if(elem.value=="Please Choose")
{
alert(helperMsg);
elem.focus();
return false;
}
else
{
return true;
}
}
```

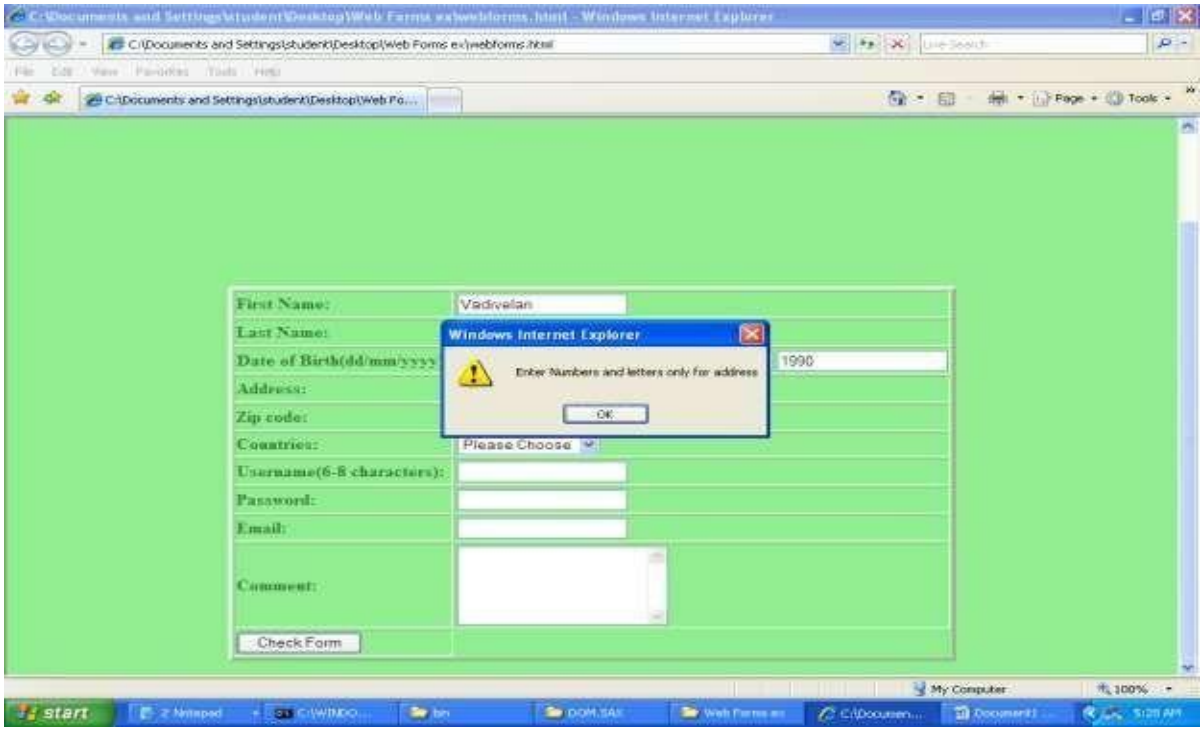
```
function emailValidator(elem,helperMsg)
{
var emailExp=/^[0-9 a-z . a-z 0-9]+\@[a-z]+\.[a-z]{2,4}$/;
if(elem.value.match(emailExp))
{
return true;
}
else
{
alert(helperMsg);
elem.focus();
return false;
}
}
</script>
<h1><center><b><font color="#347235">Please Enter YourDetails</font></b></center>
</h1>
</head>
<body bgcolor="LIGHTGREEN">
<hr>
<form onsubmit='return formValidator()' height="50%">
<table height="50%" border="3pt" align="center">
<tr><td><b><font color="#347235">First Name:</font></b></td><td><input
type='text' id='firstname'/></td></tr><br />
<tr><td><b><font color="#347235">Last Name:</font></b></td><td><input
type='text' id='lastname'/></td></tr><br />
<tr><td><b><font color="347235">Date of Birth(dd/mm/yyyy): </font></b></td><td>
<input type='text' id='dd' />
<select id='mm'>
<option>Please Choose</option>
<option value="1">Jan</option>
<option value="2">Feb</option>
<option value="3">Mar</option>
<option value="4">Apr</option>
<option value="5">May</option>
<option value="6">Jun</option>
<option value="7">Jul</option>
<option value="8">Aug</option>
<option value="9">Sep</option>
<option value="10">Oct</option>
<option value="11">Nov</option>
<option value="12">Dec</option>
</select>
<input type='text' id='yyyy' /></td></tr><br />
```

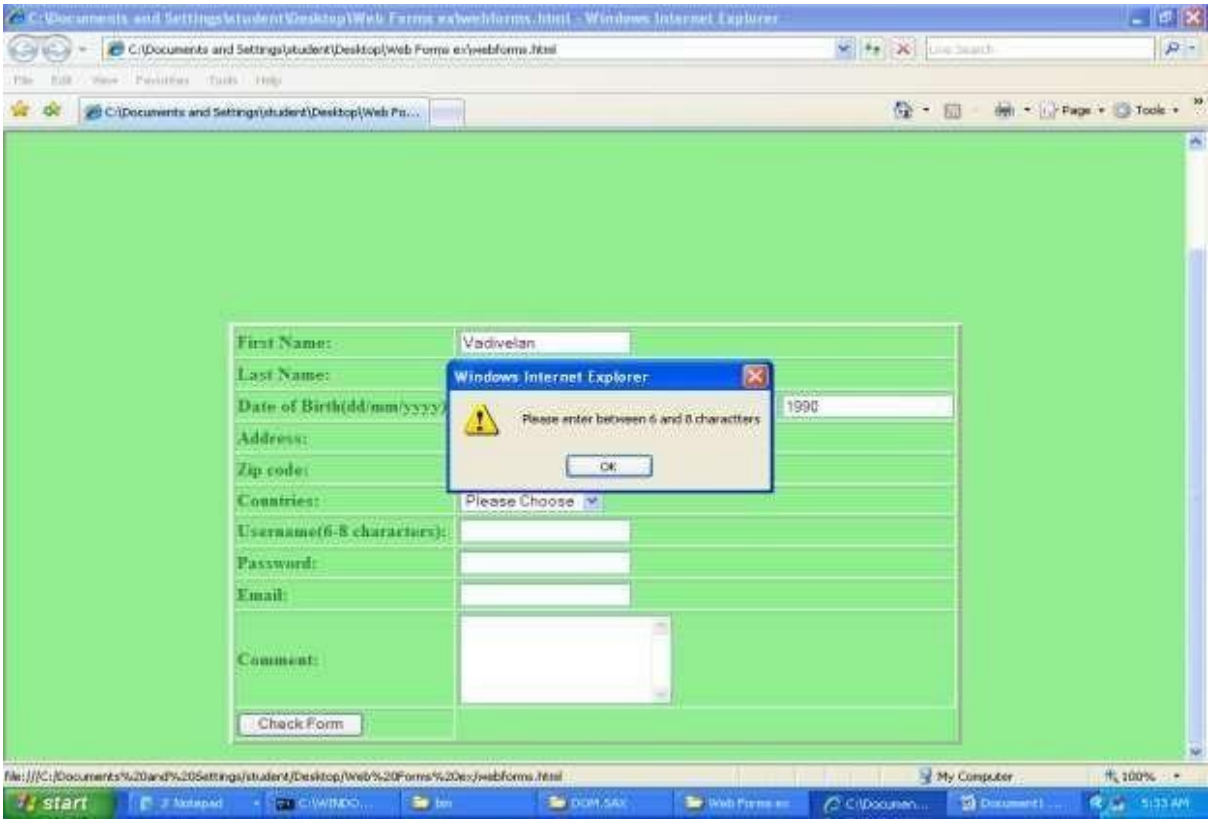
```
<tr><td><b><font color="#347235">Address:</font></b></td><td>
<inputtype='text' id='addr'/></td></tr><br />
<tr><td><b><font color="#347235">Zip code:</font></b></td><td>
<inputtype='text' id='zip'/></td></tr><br />
<tr><td><b><font color="#347235">Countries:</font></b></td><td>
<selectid='Countries'>
<option>Please Choose</option>
<option value="United Kingdom">United Kingdom</option>
<option value="Afghanistan">Afghanistan</option>
<option value="America">America</option>
<option value="India">India</option>
<option value="Tanzania">Tanzania</option>
<option value="Zimbabwe">Zimbabwe</option>
<option value="Switzerland">Switzerland</option>
</select></td></tr><br />
<tr><td><b><font color="#347235">Username(6-8 characters):</font>
</b></td><td><input type='text' id='username' /></td></tr><br />
<tr><td><b><font color="#347235">Password:</font></b></td><td>
<inputtype='password' id='password' /></td></tr><br />
<tr><td><b><font color="#347235">Email:</font></b></td><td>
<inputtype='text' id='email' /></td></tr><br />

<tr><td><b><font color="#347235">Comment:</font>
</b></td><td><textarea id='comment'cols="20"rows="5"
name="Address"></textarea></td></tr><br />
<tr><td><input type='submit' value='Check Form' /></td></tr>
</table>
</form>
</body></html>
```

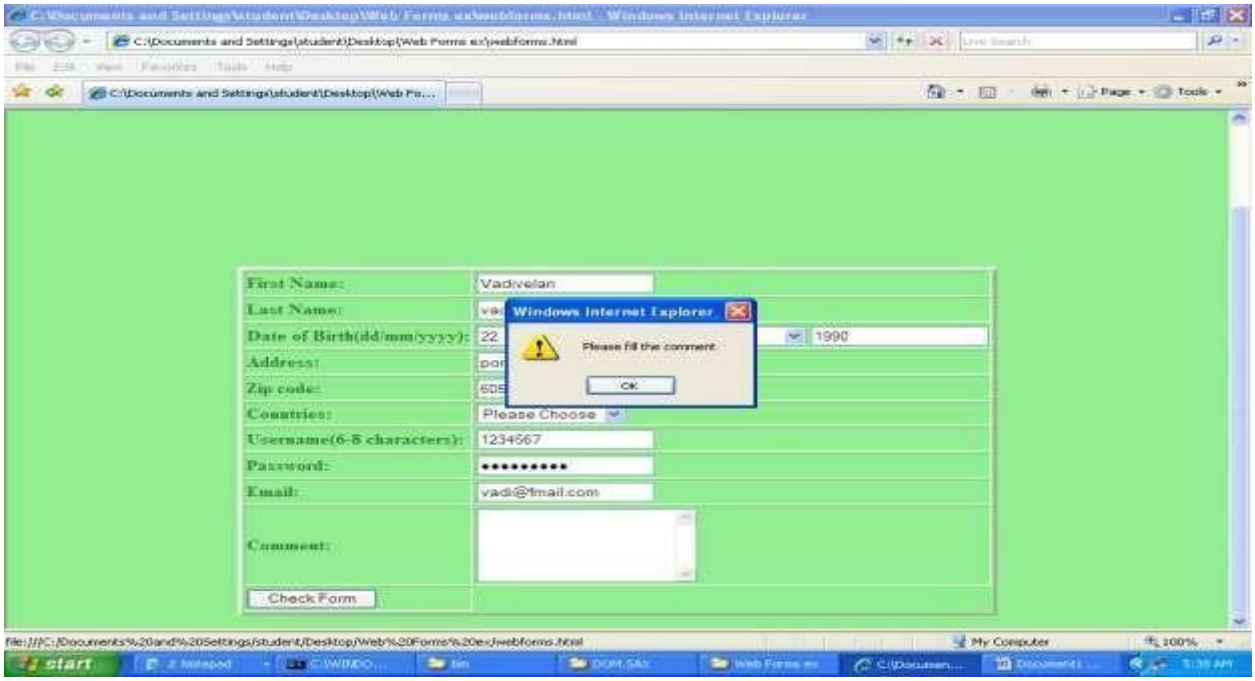
OUTPUT:


C:\Documents and Settings\student\Desktop\Web Forms ex\webforms.html - Windows Internet Explorer
Please Enter Your Details
First Name:
Last Name:
Date of Birth(dd/mm/yyyy):
Please Choose
Address:
Zip code:
Countries:
Please Choose
Username(6-8 characters):
Password:
Email:
Done
My Computer
start


First Name:
Vadivelan
Last Name:
Windows Internet Explorer
Please enter only letters for your Last name
OK
Date of Birth(dd/mm/yyyy
Address:
Zip code:
Countries:
Please Choose
Username(6-8 characters):
Password:
Email:
Comment:
Check Form
My Computer
start


First Name:
Vadivelan
Last Name:
Date of Birth(dd/mm/yyyy
1990
Address:
Zip code:
Countries:
Please Choose
Username(6-8 characters):
Password:
Email:
Comment:
Check Form
Windows Internet Explorer
Enter Numbers and letters only for address
OK


First Name:
Vadivelan
Last Name:
Date of Birth(dd/mm/yyyy)
1990
Address:
Zip code:
Countries:
Please Choose
Username(6-8 characters):
Password:
Email:
Comment:
Check Form
Windows Internet Explorer
Please enter between 6 and 8 characters
OK



RESULT:

Thus developing client side scripts for validating web from controls using DHTML has been verified.

REG NO: 411720205005

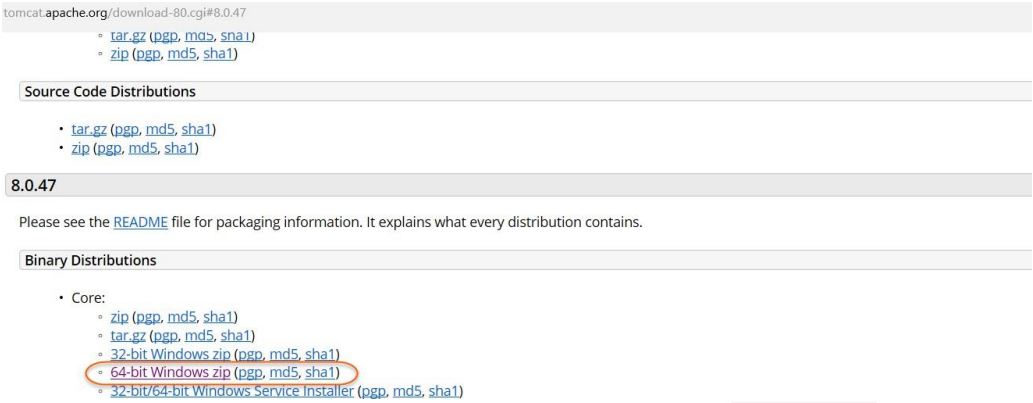
Ex No: 4	INSTALLATION OF APACHE TOMCAT WEB SERVER
Date:	

AIM:

To install apache tomcat web server

ALGORITHM:

1. Download Tomcat 8.0 at https://tomcat.apache.org/download-80.cgi#8.0.47. Select the 64-bit version for Windows:



2. Extract the zip file to a directory on your computer, e.g., c:/Tomcat8.
3. To configure Tomcat, you may define CATALINA_HOME and CATALINA_BASE environment variables in the Windows Control Panel, although this will not be required for starting and stopping Tomcat from the command line. Set the value of each environment variable to the install directory in the previous step, e.g., c:/Tomcat8.
4. While in the Control Panel environment variables definition panel, add the bin directory of Tomcat to the PATH variable. The bin directory is located in the install directory, e.g., c:/Tomcat8/bin.
5. Tomcat installation and initial configuration is complete.

RESULT:

Thus the Apache Tomcat Web Server is installed successfully.

REG NO: 411720205005

Ex No: 5	INVOKING SERVLET FROM HTML FORMS
Date:	

AIM:

To write a html program for invoking servlet using html.

ALGORITHM:

Step1: In html program, define the html, head and title tag.

Step2: Then the title is Student Information Form and close the title and head tag.

Step3: Define the body tag inside the body tag create form and table simultaneously.

Step4: The table consists of following information Roll no, Student name, Address, Phoneno and total marks.

Step5: In the servlet program, import the summary package and create a ownservlet class extends with generic servlet.

Step6: In the service method defined to request and response.

Step7: Create the object and for print writer and get writer() value.

Step8: The enumeration object get the servlet request parameter.

Step9: Create objects for string method and it is displayed another object value received get parameter of name received and displayed the value received value.

PROGRAM:

//index.html

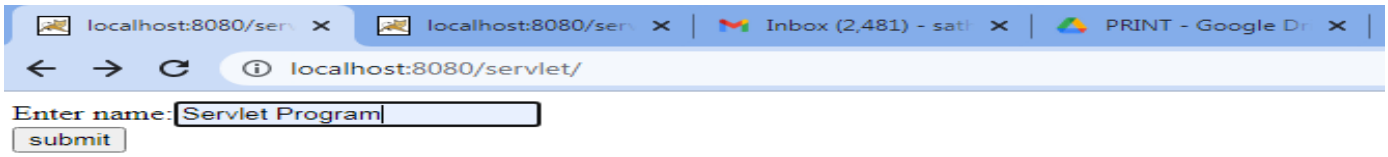
```
<form action="TestServlet" method="get">
Enter name:<input type="text" name="tf1"/> <br>
<input type="submit" value="submit"/>
</form>
```

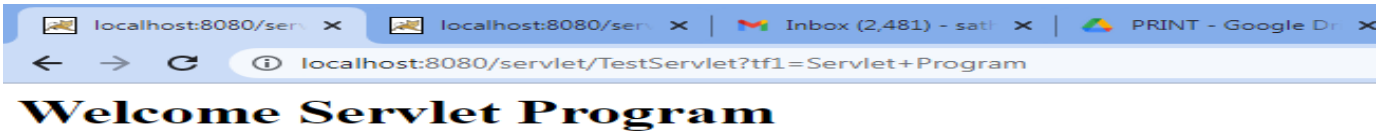
```
//TestServlet.java
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class TestServlet extends HttpServlet
{
public void doGet(HttpServletRequest req,HttpServletResponse res)throws IOException,ServletException
{
res.setContentType("text/html");
PrintWriter out=res.getWriter();
String s1=req.getParameter("tf1");
out.print("<h1>Welcome "+s1+" </h1>");
out.close();
}
}
```

//web.xml

```
<web-app>
<servlet>
<servlet-name>s1</servlet-name>
<servlet-class>TestServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>s1</servlet-name>
<url-pattern>/TestServlet</url-pattern>
</servlet-mapping>
</web-app>
```

OUTPUT:


localhost:8080/ser
localhost:8080/ser
Inbox (2,481) - sat
PRINT - Google Dr
localhost:8080/servlet/
Enter name:
Servlet Program
submit


localhost:8080/ser
localhost:8080/ser
Inbox (2,481) - sat
PRINT - Google Dr
localhost:8080/servlet/TestServlet?tf1=Servlet+Program
Welcome Servlet Program

RESULT:

Thus the invocation of servlet from HTML from has been developed successfully.

REG NO: 411720205005

Ex No: 6	ONLINE EXAMINATION
Date:	

AIM:

To write a java servlet program to conduct online examination and to display student mark list available in a database.

ALGORITHM:

Step1: Create a html file with form tag.

Step2: The form tag action=”http://localhost:8080/example/servlet/exam”.

Step3: Create two textbox(name & seat number).

Step4: The 5 question are defined into true or false model and close all tags.

Step5: Import the necessary packages and declare class, class name in exam.

Step6: Declare the connection, statement and result set object.

Step7: Use the deposit () for check the connection in JDBC:ODBC driver.

Step8: The data are inserted into corresponding table.

Step9: The update () method will update the database.

Step10: Display the table after html file compilation.

PROGRAM:

//index.jsp

```
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>Welcome to Online Examination!!!!</title>
</head>
<body>
Welcome to Online Examination!!!!
<form action="exam" method="get">
<label><p> Enter Your name Please!!<br/> <input type="text"name="name"/>
<br/>
<input type="submit" name="SUBMIT"/>
</p></label>
</form>
</body>
</html>
```

//exam.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;
public class exam extends HttpServlet {
protected void doGet(HttpServletRequest request, HttpServletResponseresponse)
   throws ServletException, IOException {
 response.setContentType("text/html");
 PrintWriter  out=response.getWriter();
 String name=request.getParameter("name");
 out.println("<html>");
        out.println("<head>");
        out.println("<title>Online Examination</title>");
        out.println("</head>");
        out.println("<body bgcolor=PINK>");
        out.println("<h2 align=center>Online Examination</h2><hr>");
        out.println("<h3 align=center> Welcome Mr."+name+"</h3><hr>");
        out.println("<h4><u>Terms and Conditions:</u></h4>");
        out.println("<ul type=disc>");
        out.println("<li>The Paper consists a set of five questions.</li>");
        out.println("<li>Every question consists of two options.</li>");
        out.println("<li>All must be answered</li></ul><hr>");
        out.println("<center><h5><u>Your Questions</u></h5></center>");
```

```
            out.println("<hr>");
            out.println("<form method=get action=exam2>");
            out.println("<p>1.Operating System is a ..... </p>");
            out.println("<input type=radio name=q1 value=0>Hardware");
            out.println("<br>");
            out.println("<input type=radio name=q1 value=1>Software");
            out.println("<hr>");
            out.println("<p>2.Developer of C Language is ..... </p>");
            out.println("<br>");
            out.println("<input type=radio name=q2 value=0>Dennis Richee");
            out.println("<br>");
            out.println("<input type=radio name=q2 value=1>James Thompson");
            out.println("<hr>");
            out.println("<p>3.Which of the following is a multitasking, multiuser, multiprocessing);
            out.println("OS..... </p>");
            out.println("<br>");
            out.println("<input type=radio name=q3 value=0>MS DOS");
            out.println("<br>");
            out.println("<input type=radio name=q3 value=1>Windows NT");
            out.println("<hr>");
            out.println("<p>4.Father of Computers is..... </p>");
            out.println("<br>");
            out.println("<input type=radio name=q4 value=1>Charles babbage");
            out.println("<br>");
            out.println("<input type=radio name=q4 value=0>Charles Dickson");
            out.println("<hr>");
            out.println("<p>5.What is the current generation of computers ?</p>");
            out.println("<br>");
            out.println("<input type=radio name=q5 value=0>Fifth");
            out.println("<br>");
            out.println("<input type=radio name=q5 value=1>Sixth");
            out.println("<hr>");
            out.println("<input type=submit value=Done>");
            out.println("</form>");
            out.println("</body>");
            out.println("</html>");
    }
    public String getServletInfo() {
        return "A Servlet of the user";
    }
}
```

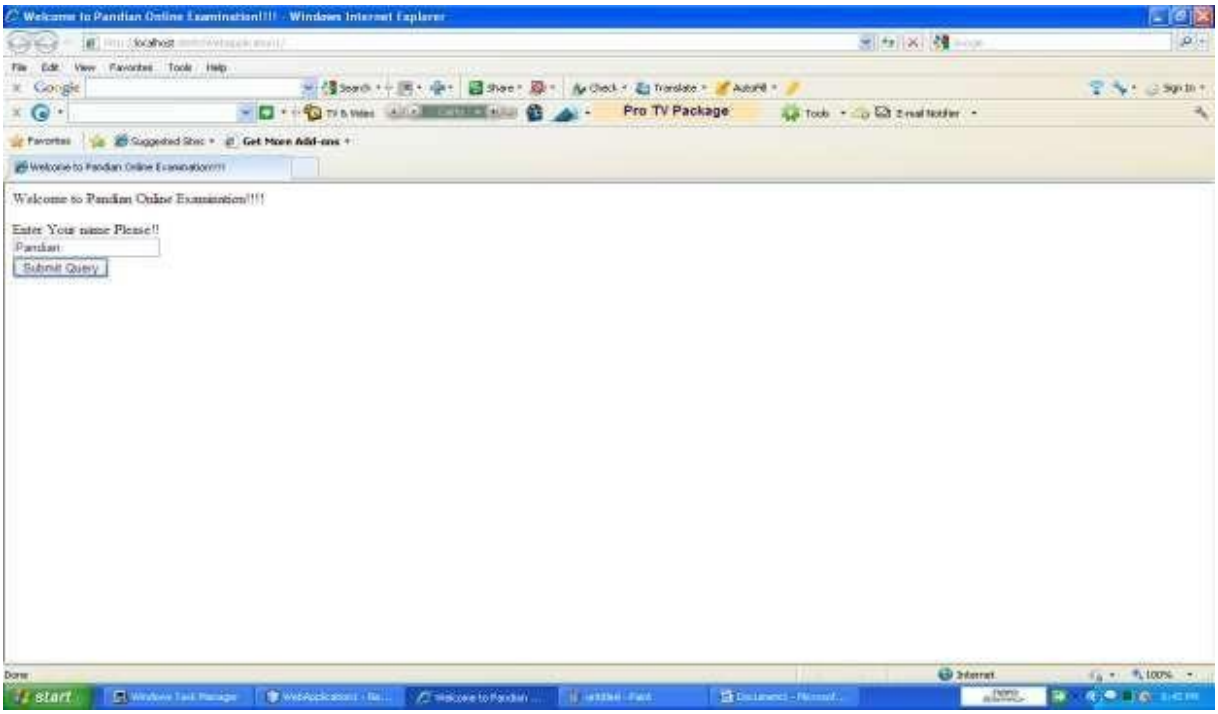
//exam2.java

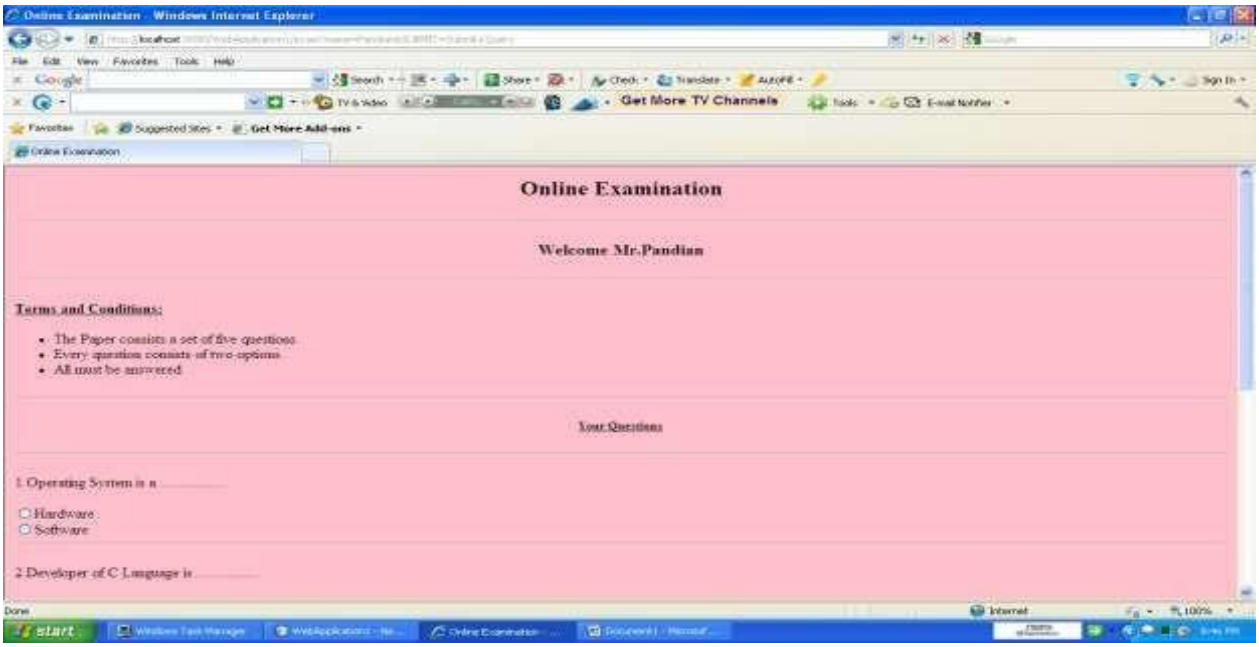
```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
```

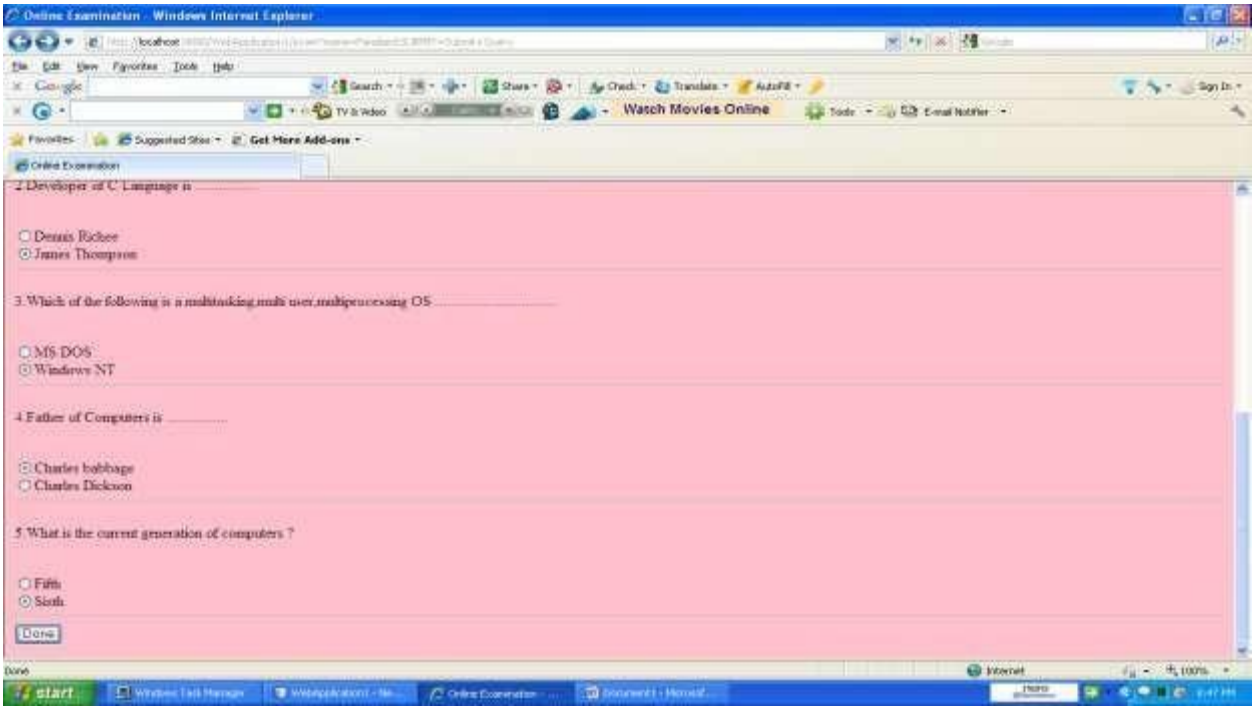
```
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class exam2 extends HttpServlet {
protected void doGet(HttpServletRequest request, HttpServletResponseresponse)
   throws ServletException, IOException {
      int count=0,j;
      response.setContentType("text/html");
      PrintWriter out=response.getWriter();
      String q1=request.getParameter("q1");
      String q2=request.getParameter("q2");
      String q3=request.getParameter("q3");
      String q4=request.getParameter("q4");
      String q5=request.getParameter("q5");
      if(q1.equals("1"))
      {
         count=count+1;
       }
      if(q2.equals("1"))
      {
         count=count+1;
       }
      if(q3.equals("1"))
      {
         count=count+1;
       }
      if(q4.equals("1"))
      {
         count=count+1;
       }
      if(q5.equals("1"))
      {
         count=count+1;
       }
      out.println("<html>");
      out.println("<head><title>Examination Results</title></head>");
      out.println("<body>");
      out.println("<h2 align=center<Online Examination</h2><hr>");
      out.println("<h3>Number of Questions answered correctly:</h3>"+count);
      if(count>=3)
      {
      out.println("<hr><h3>Congrats!!! You Have Passed!!!</h3><hr>");
      out.println("<h4><b>Try Other Tests!!</b></h4>");
       }
```

```
        else
        {
        out.println("<hr><h3>Sorry!!! You Have Failed!!!</h3><hr>");
        out.println("<h4><b>Try Again:</b></h4>");
         }
        out.println("</body>");
        out.println("</html>");
        }
public String getServletInfo() {
        return "A Servlet of the User";
    }
}
```

OUTPUT:







RESULT:

Thus the development of program in java to create three tire application by servlet has been verified successfully.

REG NO: 411720205005

Ex No : 7	XML SCHEMA FOR STUDENT DETAILS
Date:	

AIM:

To write a program for implementing student information using XML & XSL.

ALGORITHM:

Step1: The XML document reference to the XSL document.

Step2: Then create the student information in the student tag and insert the information about the student.

Step3: Close all opened tags.

Step4: In XSL document create a html file include the student information in table format.

Step5: Close the necessary tags.

PROGRAM:

//student.xml

```
<?xml version="1.0"?>
<?xml-stylesheet type="text/css" href="student.css"?>
<!DOCTYPE student SYSTEM "student.dtd">
<students>
<student>
<sno>801041</sno>
<sname>S.Soundarapandian</sname>
<dob>05/081991</dob>
<address>Neyveli</address>
<m1>80</m1>
<m2>90</m2>
<m3>95</m3>
</student>
```

```
<student>
<sno>801049</sno>
<sname>R.Vadivelan</sname>
<dob>22/07/1990</dob>
<address>Pondicherry</address>
<m1>90</m1>
<m2>95</m2>
<m3>80</m3>
</student>
<student>
<sno>801037</sno>
<sname>R.Satheesh</sname>
<dob>21/01/1991</dob>
<address>Kanyakumari</address>
<m1>80</m1>
<m2>90</m2>
<m3>95</m3>
</student>
</students>
```

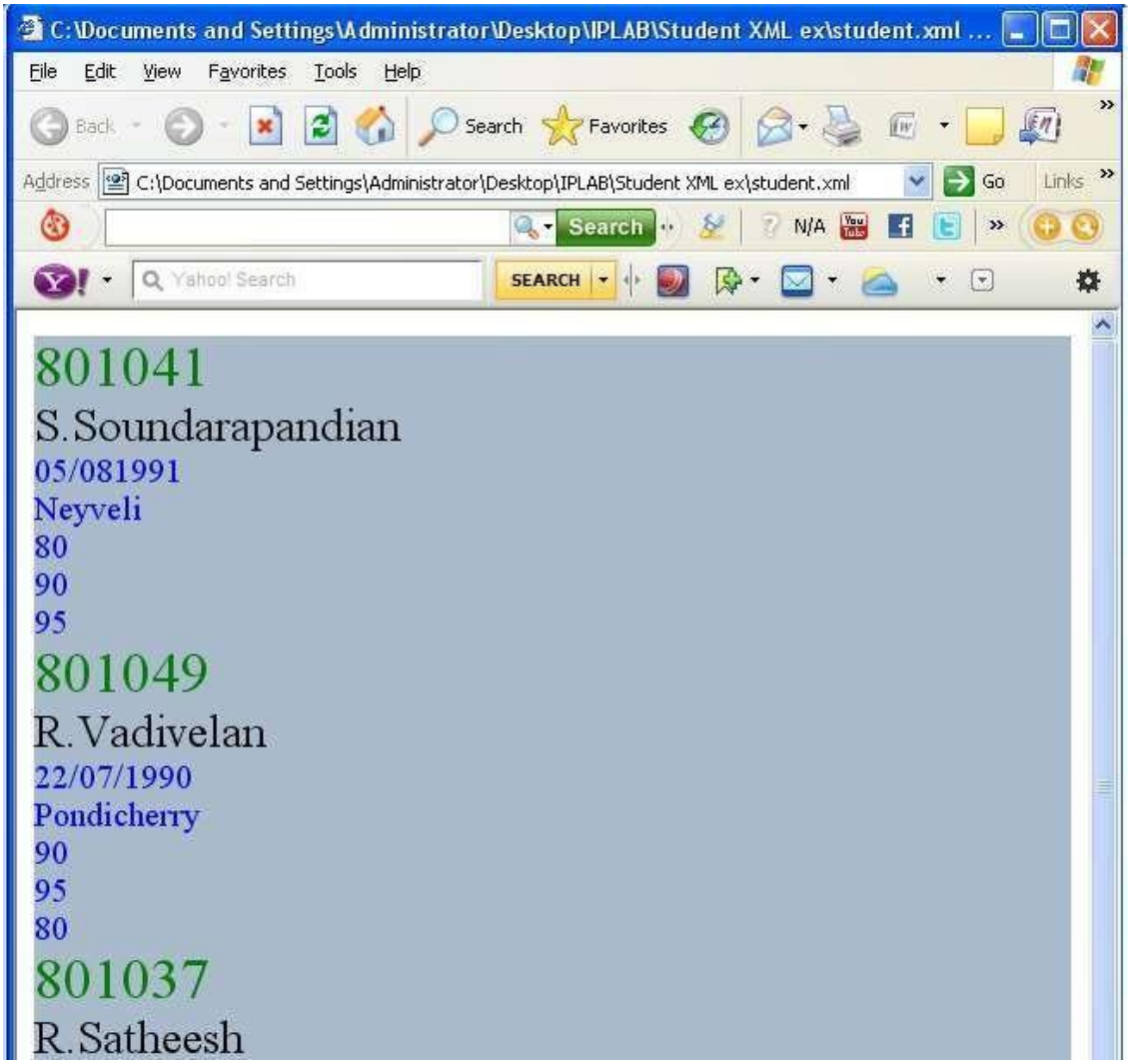
//student.css

```
Student {  background.color:#aabbcc;width:100%;}
Sno { display:block; color:GREEN; font.size:25pt; }
Sname { display:block; color:BLACK; font.size:20pt; }
Dob { display:block; color:BLUE; font.size:15pt; }
Address { display:block; color:BLUE; font.size:15pt; }
m1 { display:block; color:BLUE; font.size:15pt; }
m2 { display:block; color:BLUE; font.size:15pt; }
m3 { display:block; color:BLUE; font.size:15pt;}
```

//student.dtd`

```
<?xml version="1.0"?>
<!ELEMENT students (student+)>
<!ELEMENT student (sno,sname,dob,address,m1,m2,m3)>
<!ELEMENT sno (#PCDATA)>
<!ELEMENT sname (#PCDATA)>
<!ELEMENT dob (#PCDATA)>
<!ELEMENT address (#PCDATA)>
<!ELEMENT m1 (#PCDATA)>
<!ELEMENT m2 (#PCDATA)>
<!ELEMENT m3 (#PCDATA)>
```

OUTPUT:



RESULT:

Thus the creation of XSL document using Xml has been verified successfully.

Ex No : 8a	XML - DOM PARSING
Date:	

AIM:

To write a program for implementing student information XML document and check whether it is well formed or not using DOM.

ALGORITHM:

Step 1: In java program, import the necessary package and declare the class parsing-DOM demo.

Step 2: In main function display: enter the name of the XML document and get the input from the buffer reader object.

Step 3: Then create a file object and assign to buffered reader value.

Step 4: If the input source is filename, then it is well formed otherwise it is not well formed.

Step 5: In XML program create the student information and the java file anddisplay the output.

PROGRAM:

//DOMCountEle.java

```
import org.w3c.dom.*;
import javax.xml.parsers.*;
import java.io.*;
public class DOMCountEle
{
public static void main(String[] args)
{
try
{
```

```
BufferedReader bf=new BufferedReader(new InputStreamReader(System.in));
System.out.print("Enter File name: ");
String xmlfile=bf.readLine();
File file=new File(xmlfile);
if(file.exists())
{
DocumentBuilderFactory factory=DocumentBuilderFactory.newInstance();
//create the Builder and parse the file
Document doc=factory.newDocumentBuilder().parse(xmlfile);
System.out.print("Enter the Element Name: ");
String element=bf.readLine();
NodeList nodes=doc.getElementsByTagName(element); System.out.println("XML
Document Contains "+nodes.getLength()+"Elements.");
}
else
{
System.out.println("File Not Found!");
}
}
catch(Exception ex)
{
System.out.println(ex);
}
}
}
```

//employee-deails.xml

```
<?xml version="1.0"?>
<Employee-Detail>
<Employee>
<Emp-Id>801041</Emp-Id>
<Emp-Name>S.Soundarapandian</Emp-Name>
<Emp-E-mail>s.soundarapandian@hotmail.com</Emp-E-mail>
</Employee>
<Employee>
<Emp-Id>801049</Emp-Id>
<Emp-Name>R.Vadivelan</Emp-Name>
<Emp-E-mail>vadivelanvrs@gmail.com</Emp-E-mail>
</Employee>
<Employee>
<Emp-Id>801037</Emp-Id>
<Emp-Name>R.Satheesh</Emp-Name>
<Emp-E-mail>satheeshcse37@gmail.com</Emp-E-mail>
</Employee>
```

</Employee-Detail>

OUTPUT:

Enter the File name: employee-detail.xml
Enter the Element name: Emp-Id
XML Document Contains 3 Elements

RESULT:

Thus the creation of program using DOM has been verified successfully.

Ex No : 8b	SAX PARSING
Date:	

AIM:

To write a program for student information XML document is well-formed or not using SAX.

ALGORITHM:

Step 1: In java program, input the necessary packages and declare the classname as parsing- SAXDEMO.

Step 2: In the main function display the “Enter the XML document name” manage and get the buffered reader object.

Step 3: A new file is created and it exists then it is well formed, otherwise its not wellformed.

Step 4: Else file is not passed message will be displayed.

Step 5: In XML document create the student information.

PROGRAM:

//SAX.java

```
import java.io.*;
import org.xml.sax.*;
import org.xml.sax.helpers.*;

public class SAX
{
public static void main(String[] args) throws IOException
{
try
{
```

```
System.out.println("Enter the Name of XML Document");
BufferedReader input=new BufferedReader(new InputStreamReader (System.in));
String filename=input.readLine();
File fp=new File(filename);
if(fp.exists())
{
try
{
XMLReader reader=XMLReaderFactory.createXMLReader();
reader.parse(filename);
System.out.println(filename +"is Well-Formed.");
}
catch(Exception e)
{
System.out.println(filename +"is not Well-Formed.");
System.exit(0);
}
}
else
{
System.out.println(filename +" File is not Present! ");
}
}
catch(IOException ex)
{
ex.printStackTrace();
}
}
}
```

OUTPUT:

```
Enter the name of XML Document
employee-detail.xml
employee-detail.xml is well-Formed
```

RESULT:

Thus developing a document using SAX has been successfully completed.

REG NO: 411720205005

Ex No : 9	PROGRAMS USING AJAX
Date:	

AIM:

To write a program using AJAX.

ALGORITHM:

Step 1: Create an XHTML document (AjaxDemo.html) with the following:

i. Insert some images.

ii. Call the function getContent() with respect to the onmouseover event.

iii. Call the function clearContent() with respect to the onmouseout event.

Step 2: Within this XHTML document, insert AJAX based JavaScript.

i. Create the object for ActiveXObject

ii. Create the object for XML HttpRequest

iii. AJAX send the request with the use of send() and open() methods.

iv. The response is obtained with the use of responseTextProperty.

Step 3: AJAX call the function displayProfile() with respect to the event onreadystatechange.

Step 4: Run the program

PROGRAM:

Ajaxdemo.html

```
<html> <head> <title>Ajax Demo...</title>
<style type="text/css">   .box{border:1px solid blue;padding:10px} </style>
<script type="text/javascript">
var req;
function getContent(url)
{
 if(window.ActiveXObject)
  req=new ActiveXObject("Microsoft.XMLHTTP");
 else if(window.XMLHttpRequest)
req=new XMLHttpRequest();
 req.onreadystatechange=diplayProfile;
 req.open('POST',url,true);

req.send(null);
}
function diplayProfile()
{
 if(req.readyState==4)
   document.getElementById('contentArea').innerHTML=req.responseText;
 }
function clearContent()
{  document.getElementById('contentArea').innerHTML=''; }
</script> </head> <body bgcolor="cyan">
<h1>Mouse over the image for More Information</h1>
<img src="sachin.jpg" height="95" width="80" onmouseover='getContent("sachin.html")'
onmouseout='clearContent()'/>
<img src="dravid.jpg" height="95" width="80" onmouseover='getContent("dravid.html")'
onmouseout='clearContent()'/>
<img src="kohli.jpg" height="95" width="80" onmouseover='getContent("kohli.html")'
onmouseout='clearContent()'/>
<img src="raina.jpg" height="95" width="80" onmouseover='getContent("raina.html")'
onmouseout='clearContent()'/>
<img src="yuvi.jpg" height="95" width="80" onmouseover='getContent("yuvi.html")'
onmouseout='clearContent()'/>
<img src="veeru.jpg" height="95" width="80" onmouseover='getContent("veeru.html")'
onmouseout='clearContent()'/>
<img src="dhoni.jpg" height="95" width="80" onmouseover='getContent("dhoni.html")'
onmouseout='clearContent()'/>
<div class="box" id="contentArea"/> </body> </html>
```

sachin.html

```
<html> <body> <b>Full name:</b> Sachin Ramesh Tendulkar<br/><br/>

<b>Born:</b> April 24, 1973, Bombay (now Mumbai), Maharashtra<br/><br/>

<b>Major teams:</b> India, Asia XI, Mumbai, Mumbai Indians, Yorkshire<br/><br/>

<b>Nickname:</b> Tendlya, Little Master<br/><br/>

<b>Playing role:</b> Top-order batsman<br/><br/>

<b>Batting style:</b> Right-hand bat<br/><br/>

<b>Bowling style:</b> Right-arm offbreak, Legbreak googly </body></html>
```

dravid.html

```
<html> <body> <b>Full name:</b> Rahul Sharad Dravid<br/><br/>

<b>Born:</b> January 11, 1973, Indore, Madhya Pradesh <br/><br/>

<b>Major teams:</b> India, Scotland, Asia XI, ICC World XI, Karnataka, Kent,

Marylebone Cricket Club, Rajasthan Royals, Royal Challengers Bangalore<br/><br/>

<b>Nickname:</b> The Wall<br/><br/> <b>Playing role:</b> Top-order batsman<br/><br/>

<b>Batting style:</b> Right-hand bat<br/><br/> <b>Bowling style:</b> Right-arm offbreak

</body> </html>
```

kohli.html

```
<html> <body> <b>Full name:</b> Virat Kohli<br/><br/>

<b>Born:</b>November 5, 1988, Delhi<br/><br/>

<b>Major teams:</b>India, Delhi, India Red, India Under-19s, Royal Challengers Bangalore<br/><br/>
<b>Playing role:</b>Middle-order batsman<br/><br/>

<b>Batting style:</b>Right-hand bat<br/><br/> <b>Bowling style:</b>Right-arm medium

</body> </html>
```

raina.html

```
<html> <body> <b>Full name:</b> Suresh Kumar Raina<br/><br/>

<b>Born:</b>November 27, 1986, Muradnagar, Ghaziabad, Uttar Pradesh<br/><br/>

<b>Major teams:</b>India, Chennai Super Kings, India Blue, India Under-19s, Indian Board President's XI, Rajasthan Cricket Association President's XI, Uttar Pradesh, Uttar Pradesh Under-16s<br/><br/>
<b>Playing role:</b>Middle-order batsman<br/><br/>

<b>Batting style:</b>Left-hand bat<br/><br/> <b>Bowling style:</b> Right-arm offbreak

</body> </html>
```

yuvi.html

```
<html> <body> <b>Full name:</b>Yuvraj Singh<br/><br/>

<b>Born:</b>December 12, 1981, Chandigarh<br/><br/>

<b>Major teams:</b>India, Asia XI, Kings XI Punjab, Pune Warriors, Punjab, Yorkshire<br/><br/>
<b>Playing role:</b>Middle-order batsman<br/><br/>

<b>Batting style:</b>Left-hand bat<br/><br/> <b>Bowling style:</b>Slow left-arm orthodox

</body>  </html>
```

veeru.html

```
<html> <body> <b>Full name:</b>Virender Sehwag<br/><br/>

<b>Born:</b>October 20, 1978, Delhi<br/><br/>

<b>Major teams:</b>India, Asia XI, Delhi, Delhi Daredevils, ICC World XI, India Blue, Leicestershire, Rajasthan Cricket Association President's XI<br/><br/>

<b>Playing role:</b>Top-order batsman<br/><br/>

<b>Batting style:</b>Right-hand bat<br/><br/>

<b>Bowling style:</b>Right-arm offbreak </body>  </html>
```

dhoni.html

```
<html> <body bgcolor="cyan"> <b>Full name:</b> Mahendra Singh Dhoni<br/><br/>
<b>Born:</b>July 7, 1981, Ranchi, Bihar (now Jharkhand)<br/><br/>
<b>Major teams:</b>India, Asia XI, Bihar, Chennai Super Kings, Jharkhand<br/><br/>
<b>Playing role:</b>Wicketkeeper batsman<br/><br/>
<b>Batting style:</b>Right-hand bat<br/><br/>
<b>Bowling style:</b>Right-arm medium </body> </html>
```

OUTPUT

RESULT

Thus the program of displaying cricket players information using Ajax is successfully executed and the output is verified.

Ex No : 10	AIRLINE SERVICE AND TRAVEL AGENT USING WEB SERVICES AND DATABASE
Date:	

AIM:

To write a program for airline service and travel agent using web services and database.

ALGORITHM:

Step 1: Create a database using Ms Acsess for travel agency

Step 2: Create JSP for different airlines:

- Airline.jsp
- Kingfisher.jsp and
- SpiceJet.jsp

Step 3: Execute the application

PROGRAM:

Database used: MS Access

index.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!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=UTF-8">
      <title>Travel Agency</title>
   </head>
   <body>
      <center><h1>Travel Easy</h1>
         <h3> - A Smarter way to travel</h3>
         <br><br>
```

```
<b> Enter your Details</b>
<form name="index" action="AirlineList.jsp" method="post">
  <br>
  <table cellpadding="6" cellspacing="6">
    <tr>
      <td><b>From</b></td>
      <td><input type="text" name="txt_from"</td>
    </tr>
    <tr>
      <td><b>To</b></td>
      <td><input type="text" name="txt_to"</td>
    </tr>
    <tr>
      <td><b>Date of Journey</b></td>
      <td><input type="text" name="txt_depart"</td>
    </tr>
    <tr>
      <td><b>Number of Passengers</b></td>
      <td><input type="text" name="txt_no"</td>
    </tr>
  <tr>
    <td><b>Type of Flight</b></td>
      <td><input type="Radio" name="group1" value="domestic">Domestic Flights</td
  </tr>
  <tr>
    <td></td>
    <td><input type="Radio" name="group1" value="international">International Flights</td>
  </tr>
  <tr>
    <td><b>Select desired Airlines</b></td>
    <td>
      <select name="airline">
        <option>Kingfisher</option>
        <option>SpiceJet</option>
      </select>
    </td>
  </tr>
  </table>
  <br><br>
  <input type="Submit" name="Submit" value="Find Flights">
</form>

  </center>
 </body>
</html>
```

airlinelist.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!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=UTF-8">
      <title>Domestic Flights</title>
   </head>
   <body>
      <center><h1>Travel Easy</h1>
         <h3> - A Smarter way to travel</h3>
      </center>
      <br><br>
      <%@ page language="java" %>
      <%@ page import ="java.sql.*" %>
      <%@ page import = "java.util.Date,java.text.SimpleDateFormat,java.text.ParseException"%>
      <%
         String type = request.getParameter("group1");
         String from= request.getParameter("txt_from");
         String to = request.getParameter("txt_to");
         String depart= request.getParameter("txt_depart");
         String ret = request.getParameter("txt_return");
         String no = request.getParameter("txt_no");
         String airline = request.getParameter("airline");
         Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
         String sTable = type;
         String sSql = "SELECT * FROM "  sTable  " WHERE From='" from "' and TO='" to "' and DepartDate='"
depart "' and SeatCapacity>=" no "";
         String sDBQ = "d:/"  airline ".mdb";

         String database = "jdbc:odbc:Driver={Microsoft Access Driver
(*.mdb)};DBQ="  sDBQ  ";DriverID=22;READONLY=true";
         Connection cn = null;
         Statement st = null;
         ResultSet rs = null;
         try {
            cn = DriverManager.getConnection( database ,"","");
            st = cn.createStatement();
            rs = st.executeQuery( sSql );
            ResultSetMetaData rsmd = rs.getMetaData();
            String s1,s2,s3,s4,s5,s6,s7,s8;
            int i=1;
            String flight_no[] = new String[100];
            //out.println("<form name='AirlLine' action=" method='post'><b>" i " .
" rs.getString(1)  "</b><br><br>");
            out.println("<h3><b>" airline  " Flights</b></h3><br>");
```

```
out.println("<table cellspacing=20 cellpaddinng=15>");
out.println("<tr><th>Flight No</th><th>From</th><th>To</th><th>Departure Date</th><th>Arrival
Date</th><th>Start Time</th>");
out.println("<th>Reach Time</th><th>Seats Remaining</th></tr>");
while(rs.next())
{
s1 = rs.getString(1);
flight_no[i] = s1;
s2 = rs.getString(2);
s3 = rs.getString(3);
s4 = rs.getString(4);
s5 = rs.getString(5);
s6 = rs.getString(6);
s7 = rs.getString(7);
s8 = rs.getString(8);
out.println("<tr><td>" s1 "</td>");
out.println("<td>" s2 "</td>");
out.println("<td>" s3 "</td>");
out.println("<td>" s4 "</td>");
out.println("<td>" s5 "</td>");
out.println("<td>" s6 "</td>");
out.println("<td>" s7 "</td>");
out.println("<td>" s8 "</td></tr>");
i  ;
}
out.println("</table>");
if(i==1)
{
   out.println("<br><center><b>Sorry!! No flights scheudle available</b></center><br>");
}
else
{
   out.println("<form name='AirlineList' action='" airline ".jsp' method='post'>");
   out.println("<br><table><tr><td>Select Flight</td><td>");
   out.println("<select name='flight_no'>");
   for(int temp=1;temp<i;temp  )
   {
      out.println("<option>" flight_no[temp] "</option>");
   }
   out.println("</select></td></tr><tr></tr>");
   out.println("<tr><td><input type='hidden' name='no' value='" no "'</td>");
   out.println("<td><input type='hidden' name='air_type' value='" type "'</td></tr>");
   for(int j=1;j<=Integer.parseInt(no);j )
   {
      out.println("<tr><th>Passenger " j  " details</th></tr>");
      out.println("<tr></tr>");
      out.println("<tr><td>Name</td><td><input type='text' name='pas" j "_name'</td></tr>");
      out.println("<tr><td>Age</td><td><input type='text' name='pas" j "_age'</td></tr>");
      out.println("<tr><td>Sex</td><td><input type='text' name='pas" j "_sex'</td></tr>");
```

```
                out.println("<tr></tr>");
            }
            out.println("</table><br><br><input type='Submit' name='Submit' value='Book Now'/></form>");
          }
          //out.println("<input name ='submit' value='Submit' type='submit'/>");
        }
        finally {
          try { if( null != rs ) rs.close(); } catch( Exception ex ) {}
          try { if( null != st ) st.close(); } catch( Exception ex ) {}
          try { if( null != cn ) cn.close(); } catch( Exception ex ) {}
            }

    %>
  </body>
</html>
```

Kingfisher.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!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=UTF-8">
    <title>Kingfisher Airlines</title>
  </head>
  <body>
    <%@ page language="java" %>
    <%@ page import ="java.sql.*" %>
    <%
      String s = request.getParameter("no");
      out.println("<h1><center>Kingfisher Airlines</h1><br><h3>- Have a nice trip!!!</h3></center><br>");
      out.println("<br><br>Your Booking Details");
      out.println("<br><br><table cellspacing=10 cellpaddin=10>");
      Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
      String sTable = request.getParameter("air_type");
      String sSql = "SELECT * FROM "  sTable  " WHERE FlightNo='" request.getParameter("flight_no") "'";
      String sDBQ = "d:/kingfisher.mdb";

      String database = "jdbc:odbc:Driver={Microsoft Access Driver
(*.mdb)};DBQ="  sDBQ  ";DriverID=22;READONLY=true";
      Connection cn = null;
      Statement st = null;
      ResultSet rs = null;
      String name,age,sex,flightno,from,to,departure,arrival,starttime,reachtime,seat;
      out.println("<tr><th>Name</th><th>Age</th><th>Sex</th><th>Flight
No</th><th>From</th><th>To</th><th>Departure Date</th><th>Arrival Date</th><th>Start Time</th><th>Reach
```

```
Time</th><th>Seat No</th></tr>");
          try
          {
           cn = DriverManager.getConnection( database ,"","");
           st = cn.createStatement();
           rs = st.executeQuery( sSql );
           ResultSetMetaData rsmd = rs.getMetaData();
           int seat1=1;
           while(rs.next())
           {
              flightno = rs.getString(1);
              from = rs.getString(2);
              to = rs.getString(3);
              departure = rs.getString(4);
              arrival = rs.getString(5);
              starttime = rs.getString(6);
              reachtime = rs.getString(7);
              seat = rs.getString(8);
              seat1 = Integer.parseInt(seat);
              for(int i=1;i<=Integer.parseInt(s);i  )
          {
             name= request.getParameter("pas" i "_name");
             age = request.getParameter("pas" i "_age");
             sex = request.getParameter("pas" i "_sex");
             flightno = request.getParameter("flight_no");

             out.println("<tr><td>" name "</td><td>" age "</td><td>" sex "</td>");
             out.println("<td>" flightno "</td><td>" from "</td><td>" to "</td><td>" departure "</td>");
             out.println("<td>" arrival "</td><td>" starttime "</td><td>" reachtime "</td><td>" seat1 "</td>");
             seat1--;
            }

           }
           Connection cn1 = null;
          Statement st1 = null;
          ResultSet rs1 = null;
         try
         {
          sSql = "update " sTable " set SeatCapacity=" seat1 " WHERE FlightNo='"
request.getParameter("flight_no") "'";
          rs1 = st.executeQuery( sSql );
          }
         catch(Exception e)
         {
          }

          }
          finally {
             try { if( null != rs ) rs.close(); } catch( Exception ex ) {}
```

```
            try { if( null != st ) st.close(); } catch( Exception ex ) {}
            try { if( null != cn ) cn.close(); } catch( Exception ex ) {}
               }
      %>
   </body>
</html>
```

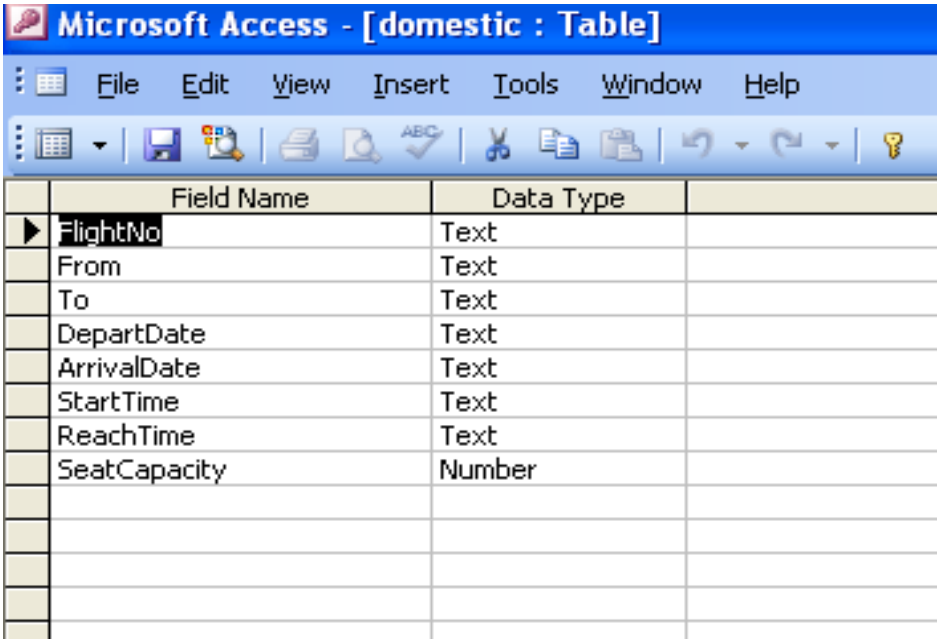
SpiceJet.jsp

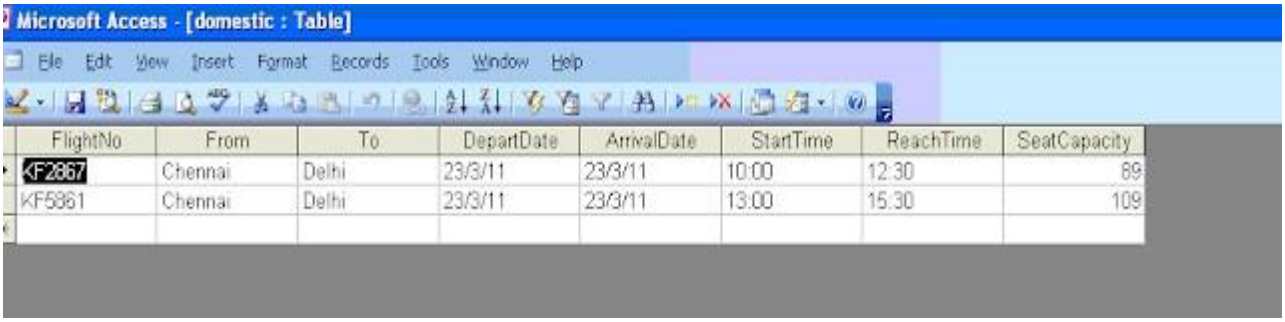
```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
  "http://www.w3.org/TR/html4/loose.dtd">

<html>
   <head>
      <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
      <title>SpiceJet Airlines</title>
   </head>
   <body>
      <%@ page language="java" %>
      <%@ page import ="java.sql.*" %>
      <%
         String s = request.getParameter("no");
         out.println("<h1><center>SpiceJet Airlines</h1><br><h3>- Have a nice trip!!!</h3></center><br>");
         out.println("<br><br>Your Booking Details");
         out.println("<br><br><table cellspacing=10 cellpaddin=10>");
         Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
         String sTable = request.getParameter("air_type");
         String sSql = "SELECT * FROM "  sTable  " WHERE FlightNo='" request.getParameter("flight_no") "'";
         String sDBQ = "d:/SpiceJet.mdb";

         String database = "jdbc:odbc:Driver={Microsoft Access Driver
(*.mdb)};DBQ="  sDBQ  ";DriverID=22;READONLY=true";
         Connection cn = null;
         Statement st = null;
         ResultSet rs = null;
         String name,age,sex,flightno,from,to,departure,arrival,starttime,reachtime,seat;
         out.println("<tr><th>Name</th><th>Age</th><th>Sex</th><th>Flight
No</th><th>From</th><th>To</th><th>Departure Date</th><th>Arrival Date</th><th>Start Time</th><th>Reach
Time</th><th>Seat No</th></tr>");
         try
         {
          cn = DriverManager.getConnection( database ,"","");
          st = cn.createStatement();
          rs = st.executeQuery( sSql );
          ResultSetMetaData rsmd = rs.getMetaData();
          int seat1=1;
          while(rs.next())
```

```
            {
               flightno = rs.getString(1);
               from = rs.getString(2);
               to = rs.getString(3);
               departure = rs.getString(4);
               arrival = rs.getString(5);
               starttime = rs.getString(6);
               reachtime = rs.getString(7);
               seat = rs.getString(8);
               seat1 = Integer.parseInt(seat);
               for(int i=1;i<=Integer.parseInt(s);i  )
           {
              name= request.getParameter("pas" i "_name");
              age = request.getParameter("pas" i "_age");
              sex = request.getParameter("pas" i "_sex");
              flightno = request.getParameter("flight_no");

              out.println("<tr><td>" name "</td><td>" age "</td><td>" sex "</td>");
              out.println("<td>" flightno "</td><td>" from "</td><td>" to "</td><td>" departure "</td>");


              out.println("<td>" arrival "</td><td>" starttime "</td><td>" reachtime "</td><td>" seat1 "</td>");
              seat1--;
             }

            }
            Connection cn1 = null;
           Statement st1 = null;
           ResultSet rs1 = null;
          try
          {
           sSql = "update "  sTable  " set SeatCapacity=" seat1 " WHERE FlightNo='"
request.getParameter("flight_no") "'";
           rs1 = st.executeQuery( sSql );
           }
          catch(Exception e)
          {
           }

           }
           finally {
              try { if( null != rs ) rs.close(); } catch( Exception ex ) {}
              try { if( null != st ) st.close(); } catch( Exception ex ) {}
              try { if( null != cn ) cn.close(); } catch( Exception ex ) {}
                  }
      %>
   </body>
</html>
```

Screenshots

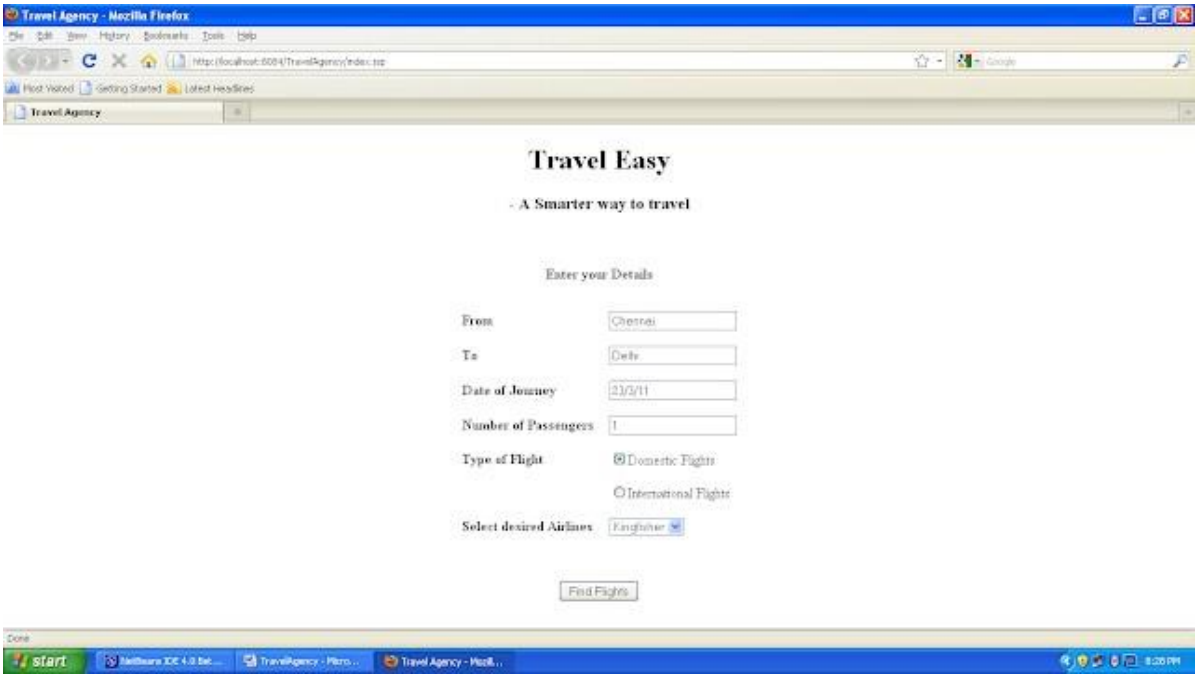
Database



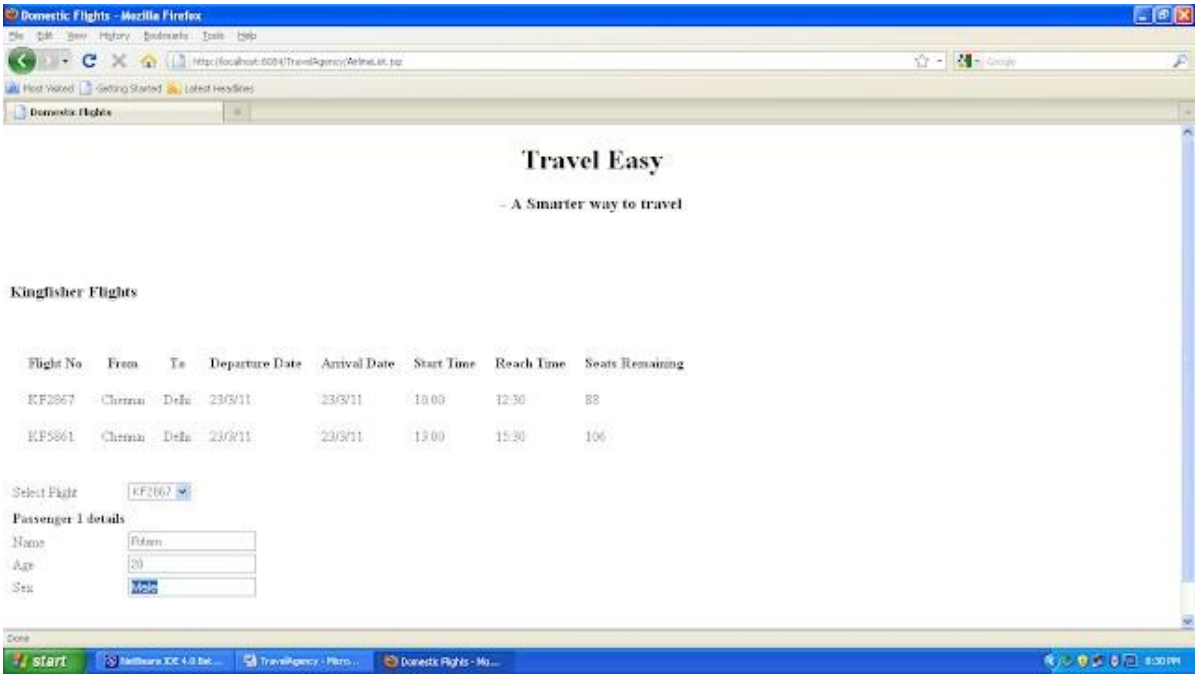


OUTPUT

index.jsp



airlinelist.jsp



Kingfisher.jsp

RESULT:

Thus the airline application was implemented using Web services and Database.