LIST OF EXPERIMENTS

Ex No: 1	CREATING A WEBPAGE USING IMAGE MAP
Date:	

AIM:

To create a web page with the following using HTML:

i) To embed an image map in a web page.

ii) To fix the hot spots.

iii) Show all the related information when the hot spots are clicked.

ALGORITHM:

Step 1: Open notepad and type the HTML coding for homepage home.html which has an image map using <MAP> tag and create some hotspots

Step 2: Hotspots are created by including a link at required coordinate position using <a> tag which directs to its corresponding webpages

Step 3: Write the coding for all the link webpages

Step 4: Run the home.html in suitable web browser

Step 5: Display output.

PROGRAM:

HOME.HTML

```
<html>
<head>
<title>Home - States of India!!!</title>
</head>
<body bgcolor="gold">
<h1><u><center>Republic of India</center></u></h1>
<p>
India is the Seventh Largest country in the world by geographical area, the second most Populous country with over 1.3 billion people, India is a vast South Asian country with diverse terrain – from Himalayan peaks to Indian Ocean coastline – and history reaching back 5 millennia. . India is a federal constitutional republic with a parliamentary democracy consisting of 28 states and 7 Union Territories.
</p>
<center>
<img align="center" width="275" height="290" alt="India" src="IndiaMap.jpg"
usemap="#india" ismap="ismap">
<map name="india">
<area shape="circle" coords="100,200,10" href="ANDHRAPRADESH.html" alt="Learn about andra">
<area shape="circle" coords="70,275,10" href="KERALA.html" alt="Learn about kerala">
<area shape="circle" coords="70,210,20" href=" KARNATAKA.html" alt="Learn about karnataka">
<area shape="circle" coords="100,250,20" href="TAMILNADU.html" alt="Learn about tamilnadu">
</map></center>
```

```
<h2> Features</h2>
<ul>
<li><b>Population</b> - 1.252 billion (2013).
<li><b>Capital</b> - New Delhi
<li><b>Largest City</b> - Mumbai
<li><b>Currency</b> - Indian Rupee
<li><b>Time Format</b> - IST (UTC + 5:30)
<li><b>National Sport</b> - Hockey
<li><b>Current PM</b> - Narendra Modi
<li><b>Current President</b> - Pranab Mukherjee
</li>
</ul>
<h2><b>To view details of southern states please click on the specified area in the map!</b>
</h2>
</body>
</html>
```

TAMILNADU.HTML

```
<html>
<head><title>Tamil Nadu - India</title></head>
<body bgcolor="palegreen">
<h1><center>Tamil Nadu</center></h1>
<h3>is one of the 28 states of India. Its capital and largest city is Chennai.
 Tamil Nadu lies in the southernmost part of the Indian Peninsula and
 It is bordered by the States of Puducherry, Kerala, Karnataka, Andhra Pradesh
</h3><h3>
<ul>
<li>Districts<i> - 32</i>
<li>Capital City<i> - Chennai</i>
<li>Largest City<i> - Chennai</i>
<li>Governor<i> - Konijeti Rosaiah</i>
<li>Chief Minister<i> - Jayalalithaa</i>
<li>Population<i> - 72,138,958</i>
<li>Tourist spots<i> - Mamallapuran, Ooty, Kodaikanal, Marina,
 Mudurai Meenakshi Amman Temple, Thanjavur etc.,</i>
</ul>
<a href="Home.html">back</a>
</body>
</html>
```

ANDRAPRADESH.HTML

```
<html>
<head><title>Andhra Pradesh - India</title></head>
<body bgcolor="tan">
<h1><center>Andhra Pradesh</center></h1>
<h3>A.P., is a state situated on the southeastern coast of India. It is
 India's fourth largest state by area and fifth largest by population.</h3>
```

```
<h3>
<ul>
<li>Districts<i> - 23</i>
<li>Capital City<i> - Hyderabad</i>
<li>Largest City<i> - Hyderabad</i>
<li>Governor<i> - E. S. L. Narasimhan</i>
<li>Chief Minister<i> - N. Kiran Kumar Reddy</i>
<li>Population<i> - 78,323,330</i>
<li>Tourist spots<i> - Tirumala Tirupati, Charminar, Golconda Fort,
 Chandragiri, Chowmahalla Place, Falaknuma Palace etc.,</i>
</ul>
<a href="Home.html">back</a>
</body>
</html>
```

KARNATAKA.HTML

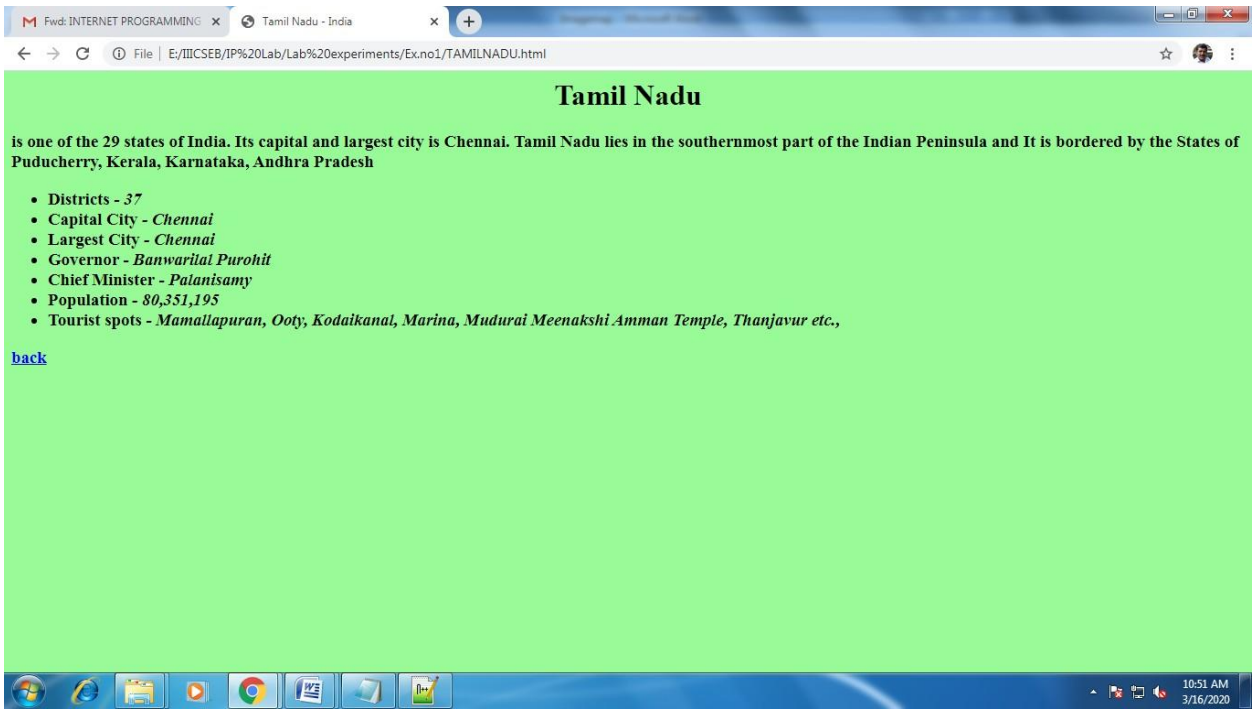
```
<html>
<head><title>Karnataka - India</title></head>
<body bgcolor="wheat">
<h1><center>Karnataka</center></h1>
<h3>
<ul>
<li>Districts<i> - 30</i>
<li>Capital City<i> - Bangalore</i>
<li>Largest City<i> - Bangalore</i>
<li>Governor<i>- Vajubhai Vala</i>
<li>Chief Minister<i> - Siddaramaiah (INC)</i>
<li>Population<i> -    61,130,704</i>
<li>Tourist spots<i> - Gol Gumbaz, Mysore Palace, Keshava Temple etc.,</i>
</ul>
</h3>
<a href="Home.html">back</a>
</body>
</html>
```

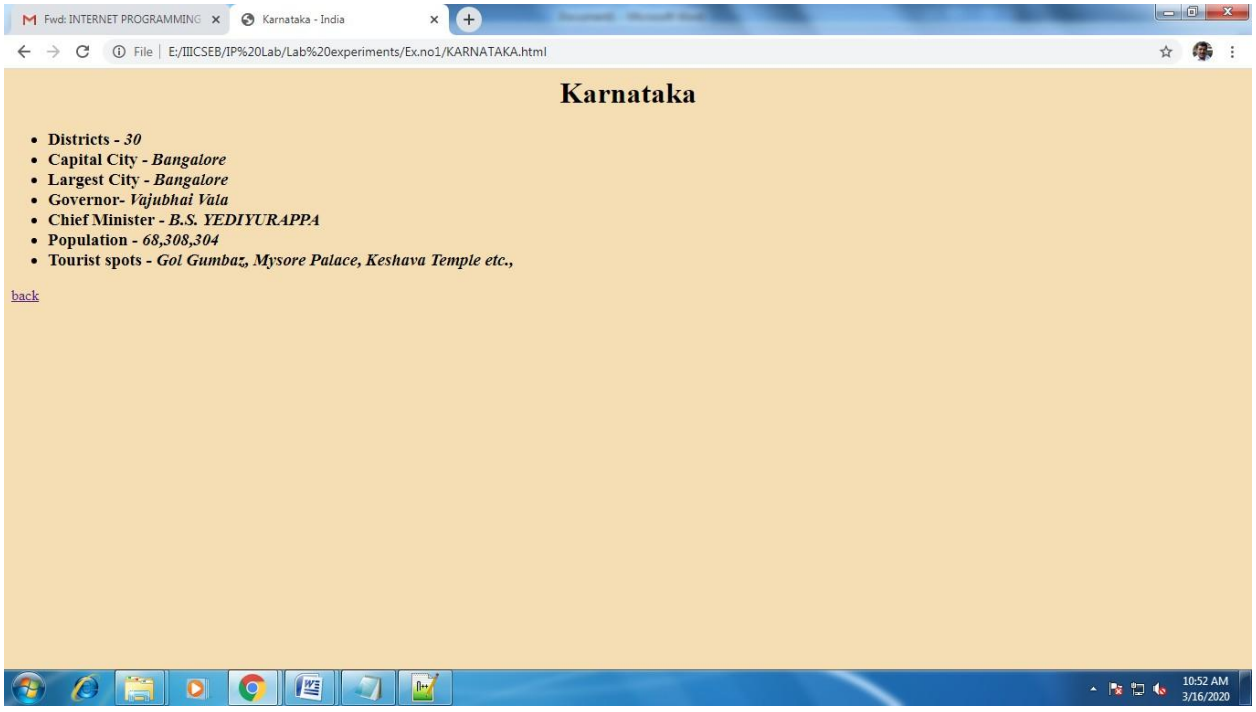
KERALA.HTML

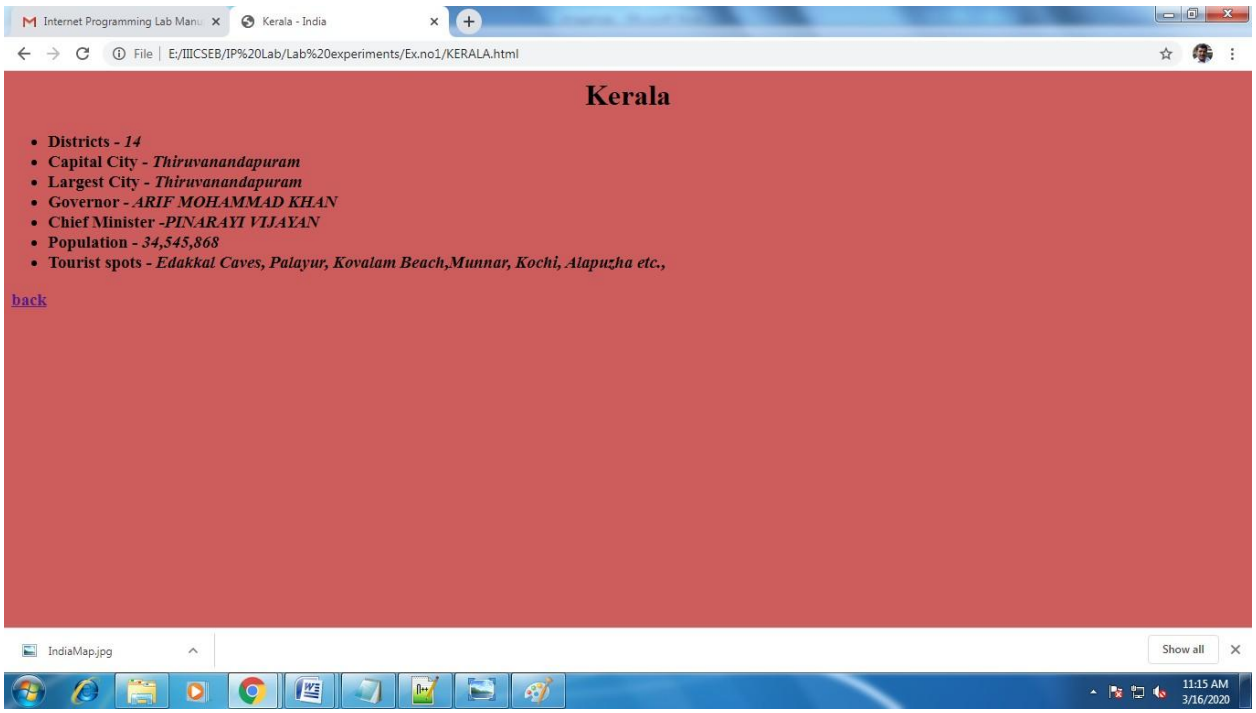
```
<html>
<head><title>Kerala - India</title></head>
<body bgcolor="indianred">
<h1><center>Kerala</center></h1>
<h3>
<ul>
<li>Districts<i> - 14</i>
<li>Capital City<i> - Thiruvanandapuram</i>
<li>Largest City<i> - Thiruvanandapuram</i>
<li>Governor<i> - P.Sathasivam</i>
<li>Chief Minister<i> -Oommen Chandy </i>
```

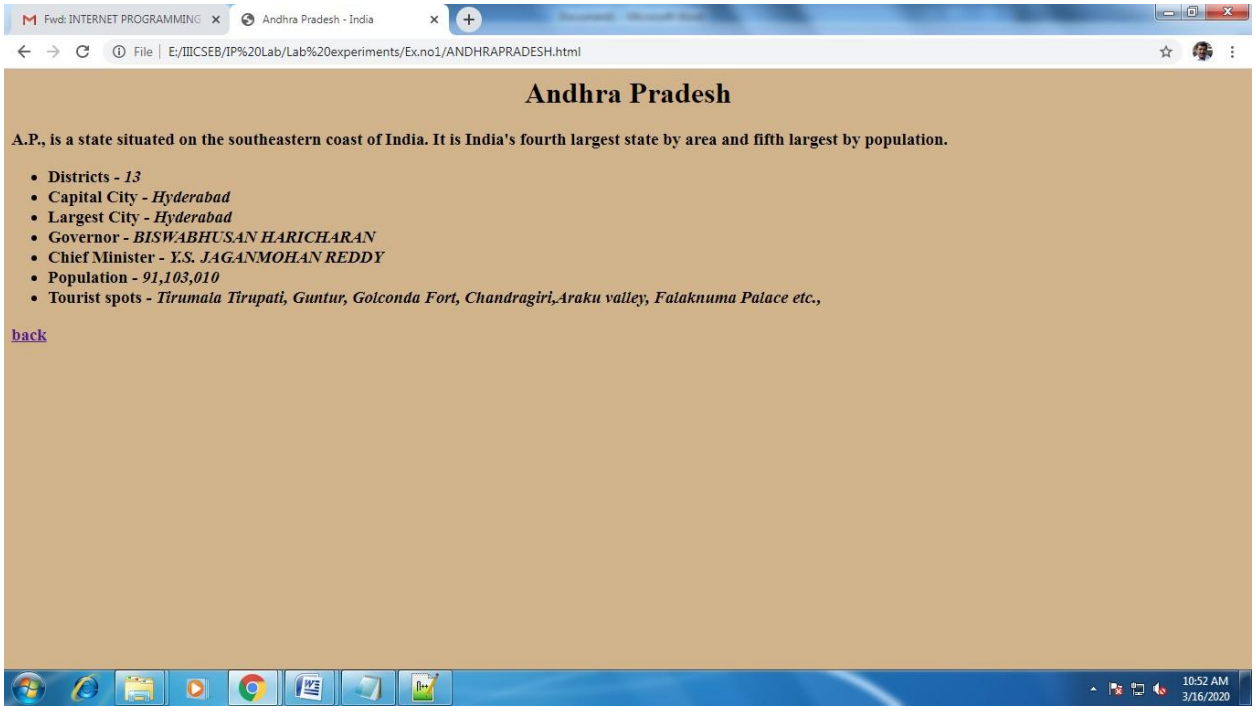
```
<li>Population<i> - 33,387,677</i>
<li>Tourist spots<i> - Edakkal Caves, Palayur, Kovalam Beach,Munnar, Kochi, Alapuzha
etc.,</i>
</ul>
<a href="Home.html">back</a>
</h3>
</body>
</html>
```

OUTPUT:


Fwd: INTERNET PROGRAMMING
Tamil Nadu - India
File | E:/IIICSEB/IP%20Lab/Lab%20experiments/Ex.no1/TAMILNADU.html
Tamil Nadu
is one of the 29 states of India. Its capital and largest city is Chennai. Tamil Nadu lies in the southernmost part of the Indian Peninsula and It is bordered by the States of Puducherry, Kerala, Karnataka, Andhra Pradesh
Districts - 37
Capital City - Chennai
Largest City - Chennai
Governor - Banwarilal Purohit
Chief Minister - Palanisamy
Population - 80,351,195
Tourist spots - Mamallapuran, Ooty, Kodaikanal, Marina, Mudurai Meenakshi Amman Temple, Thanjavur etc.,
back
10:51 AM
3/16/2020


Fwd: INTERNET PROGRAMMING
Karnataka - India
File | E:/IIICSEB/IP%20Lab/Lab%20experiments/Ex.no1/KARNATAKA.html
Karnataka
Districts - 30
Capital City - Bangalore
Largest City - Bangalore
Governor- Vajubhai Vala
Chief Minister - B.S. YEDIYURAPPA
Population - 68,308,304
Tourist spots - Gol Gumbaz, Mysore Palace, Keshava Temple etc.,
back
10:52 AM
3/16/2020





RESULT:

Thus a webpage with given specifications was created and its output was verified.

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

AIM:

Create a web page with the following:

a) Cascading style sheets.
b) Embedded style sheets.
c) Inline style sheets.

ALGORITHM:

For Internal Style sheets,
Use <style> tag with required styling options of CSS defined within the <head> tag of the main page.
Use selectors when multiple styling is to be applied on same element at different places.
Save and run the html page defined with internal CSS.
For External Style sheets,
Open notepad and type CSS code with appropriate styling and save the file with .css extension
Use anchor tag <a> to link to the created *css file* in <head> field of html page.
Save and run the html page defined to link to external style sheet.

HTML CODING:

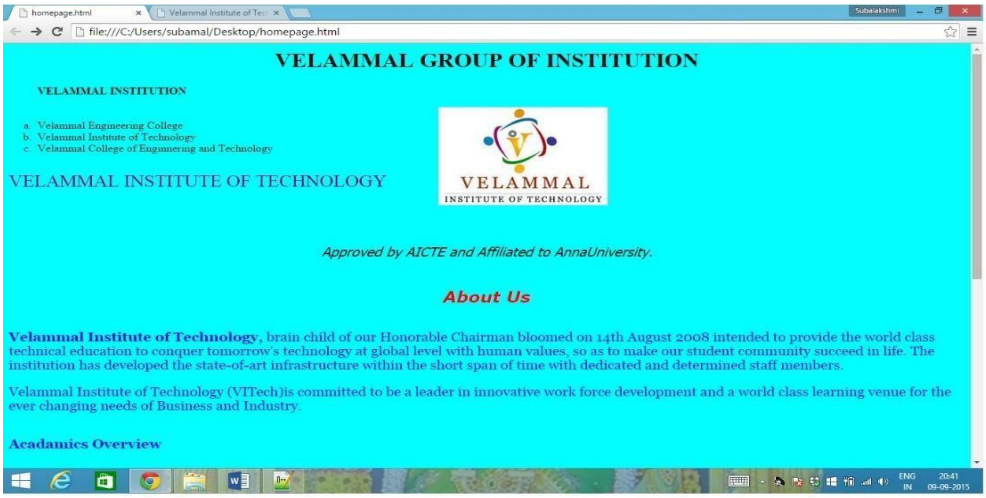
HOMEPAGE.HTML

```
<html>
<head><h1><center>TAGORE GROUP OF INSTITUTIONS</center></h1>
<title>
</title>
<link rel="stylesheet" href="XYZ.css" type="text/css">
<style type="text/css">
.vid{font-family:verdana;font-style:italic;color:red;text-align:center}
.ani{font-family:tahoma;font-style:italic;font-size:20;text-align:center;}
font{font-family:georgia;color:blue;font-size:20}
ul{list-style-type:circle}
</style>
</head>
<body bgcolor="cyan">
<ol style="list-style-type:lower-alpha">
<b>TAGORE GROUPS</b><br><br><br>
<li>Jerusalem college of engineering
<li>Tagore engineering college
<li>Tagore medical college
</ol>
<p style="font-size:20pt;color:purple">Tagore Group of Institutions</p>
<br><br>
<p class="ani">Approved by AICTE and Autonomous.<br><br></p>
```

```
<h2 class="vid">About Us</h2>
<img src="C:\Users\subamal\Desktop\img.jpg"/>
<br>
<font><strong>Jerusalem college of engineering, </strong> brain child of our Honorable Chairman bloomed on 14th August 2008 intended to provide the world class technical education to conquer tomorrow's technology at global level with human values, so as to make our student community succeed in life.
The institution has developed the state-of-art infrastructure within the short span of time with dedicated and determined staff members. </p>
<p>JCE is committed to be a leader in innovative work force development and a world class learning venue for the ever changing needs of Business and Industry.
&amp;nbsp;&amp;nbsp;&amp;nbsp;&amp;nbsp;&amp;nbsp; &amp;nbsp;</font><br>
<br>
<font>
<h2> Acadamics Overview</h2>
<h2><strong>UG B.E/B.TECH PROGRAM</strong></h2>
<ul>
<li>Computer Science and Engineering</li>
<li>Electronics and Communication Engineering</li>
<li>Cyber Security</li>
<li>Information Technology</li>
<li>Electrical and Electronics Engineering </li>
</ul>
</font>
<h3>PG PROGRAMME:</h3>
<div ><br /></div>
<table><tr>
<td><strong>PG PROGRAMME:</strong></td>
</tr>
<tr>
<td><strong>MBA (Master of Business Administration)</strong></td>
<td><strong>2yrs</strong></td>
</tr>
<tr>
<td><strong>M.E Computer Science and Engineering </strong></td>
<td><strong>2yrs</strong></td>
</tr>
<tr>
<td><strong>M.E Embedded System Technologies</strong></td>
<td><strong>2yrs</strong></td>
</tr>
</table>
<br /><br /><table >
<tr>
<td><strong>MBA (Master of Business Administration)</strong></td>
```

```
</tr>
<tr>
<td>Year of Establishment:</td>
<td><strong>2009</strong></td>
</tr>
<tr>
<td>Membership in:</td>
<td><strong>MMA</strong></td>
</tr>
<tr>
<td>Courses offered:</td>
<td ><strong>MBA
        (Intake 60)</strong></td>
</tr>
<tr>
<td>Collaborations:</td>
<td ><strong>MOU with MSE</strong></td>
</tr>
</table>
<br/>
    MBA (Master of Business Administration)
</table>
</body>
</html>
```

OUTPUT:



RESULT:

Thus a webpage with following specifications are developed using different style sheet and its output was verified.

Ex No: 3 Date:	CREDIT CARD VALIDATION USING JAVASCRIPT

AIM:

To write a program to validate the Registration, user login, user profile and payment by credit card pages using JavaScript.

PROCEDURE:

- **Home page:**

Main.html:

```
<html>
  <frameset rows="25%,*">
   <frame src="top.html" name="top" scrolling ="no" frameborder ="0">
   <frameset cols="25%,75%">
   <frame src="left.html" name="left" scrolling ="no" frameborder ="0">
   <frame src="right.html" name="right" scrolling ="auto" frameborder ="0">
   </frameset>
   </frameset>
</html>
```

Top.html

```
<html>
<body bgcolor="pink">
<br><br>
<marquee><h1 align=”center”><b><u>ONLINE BOOK STORAGE </u> </b> </h1>
</marquee>
</body>
</html>
```

Right.html

```
<html>
<body>
<br><br><br><br><br>
<h2 align="center">
<b><p> welcome to online book storage. Press login if you are having id otherwise press registration.
</p></b></h2>
</body> </html>
```

Left.html

```
<html>
<body bgcolor="pink">
<h3>
<ul>
<li><a href="login.html" target="right"><font color="black">
LOGIN</font></a></li><br><br>
<li><a href="profile.html" target="right"><font color="black"> USER
PROFILE</font></a></li><br><br>
<li><a href="catalog.html" target="right"><font color="black"> BOOKS
CATALOG</font></a></li><br><br>
<li><a href="scart.html" target="right"><font color="black"> SHOPPING
CART</font></a></li><br><br>
<li><a href="payment.html" target="right"><font color="black">
PAYMENT</font></a></li><br><br>
<br><br>
</ul>
</body>
</html>
```

Registration and User Login

Login.html

```
<html>
<body bgcolor="pink"><br><br><br>
<script language="javascript">
function validate()
{
var flag=1;
 if(document.myform.id.value==""|| document.myform.pwd.value=="")
{
alert("Login Id and Password must be filled")
flag=0;
}
if(flag==1)
{
alert("VALID INPUT");
window.open("catalog.html","right");
}
else
{
alert("INVALID INPUT");
} }
</script>
<form name="myform">
<div align="center"><pre>
LOGIN ID:<input type="text" name="id"><br>
PASSWORD:<input type="password" name="pwd"><br><br></pre>
<input type="button" value="ok" onClick="validate()">    
<input type="reset" value="clear" >
</div>
</form>
</body>
</html>
```

User Profile Page

Profile.html

```
<html>
<body bgcolor="pink"><br><br>
<script type="text/javascript">
function validate()
{
var flag=1;
if(document.myform.name.value==""|| document.myform.addr.value==""||
document.myform.phno.value==""|| document.myform.id.value==""||
document.myform.pwd.value=="")
{
flag=0;
}
alert("Enter all the details");
var str=document.myform.phno.value;
var x=new RegExp("\\d","g");
if(!(str.match(x)))
{
if(!(str.length==10))
flag=0;
}
var str1=document.myform.id.value;
var x1=new RegExp("^[A-Z][a-zA-Z]+$","g");
if(!(str1.match(x1)))
{
flag=0;
alert("Invalid UserID");
}
var str1=document.myform.pwd.value;
var x1=new RegExp("^[A-Z][a-zA- Z]+$","g"); if(!(str1.match(x1)))
{
```

```
if(flag==1)
{

flag=0;
alert("Invalid password");
}
alert("VALID INPUT");
window.self.location.href="login.html";
}
else
{
alert("INVALID INPUT");
document.myform.focus();
<br><br>
}
}
</script>
<form name="myform">
<div align="center"><pre>
NAME:<input      type="text"      name="name"><br>
ADDRESS :<input type="type" name="addr"><br>
CONTACT NUMBER:<input type="text" name="phno"><br>
LOGINID :<input type="text" name="id"><br>

PASSWORD:<input type="password" name="pwd"></pre><br><br>
</div>
<div align="center">
<input type="button" value="ok" onClick="validate()">   
<input type="reset" value="clear">
</form></body></html>
```

Shopping Cart

Catalog.html

```
<html>
<body bgcolor="pink"><br><br><br>
<script
   language="javascript">
   function validate()
    {
      var flag=1;
     if(document.myform.id.value==""|| document.myform.title.value==""||
      document.myform.no.value==""|| document.myform.cost.value=="")
         {
           flag=0;
         }
      str=document.myform.title.value;
      var str1=document.myform.cost.value;
      if(!((str=="c"&& str1==444) || (str=="jsp" && str1==555)))
                  {
                   flag=0;
                   }
  if(flag==1)
            {
                alert("VALID INPUT");
                 }
else
{
   alert("INVALID INPUT");

   document. myform.focus();
    }
  </script>
  <form name="myform" action="scart.html"target="right">
  <div align="center"><pre>
  LOGIN   ID:<input   type="text"   name="id"><br>
  TITLE   :<input   type="text"   name="title"><br>
```

```
NO.OF BOOKS:<input type="text" name="no"><br>
COST OF BOOK:<input type="text"name="cost"><br>
</pre><br><br>
</div>
<br><br>
<div align="center">
<input type="submit" value="ok" onClick="validate()">     
<input type="reset" value="clear">
</form>
</body>
</html>
```

Payment of Credit Card

Payment.html

```
<html>
<body bgcolor="pink"><br><br><br>
<script language="javascript">
function validate()
{
var flag=1;
if(document.myform.id.value==""||      document.myform.pwd.value==""||
document.myform.amount.value==""|| document.myform.num.value=="")
{
flag=0;
}
var str=document.myform.amount.value; var x=new RegExp("\\d","g");
if(!(str.match(x)))
{

flag=0;
}
var str1=document.myform.num.value; var
x1=new RegExp("\\d","g");

if(!(str.match(x1)))
{
```

```
flag=0;
}
if(flag==1)
{
alert("VALID INPUT");
window.self.location.href="order.html";
}
else
{
alert("INVALID INPUT");
document.myform.focus();
}
}
</script>
<form name="myform">
<div align="center"><pre>
LOGIN ID:<input type="text" name="id"><br>
PASSWORD:<input type="password" name="pwd"><br>
AMOUNT:<input type="text" name="amount"><br>
CREDIT CARD NUMBER:<input type="PASSWORD" name="num"><br></pre><br><br>
</div>
<br><br>
<div align="center">
<input type="button" value="ok" onClick="validate()">    
<input type="reset" value="clear" >
</form>
</body>
</html>
```

Order Confirmation

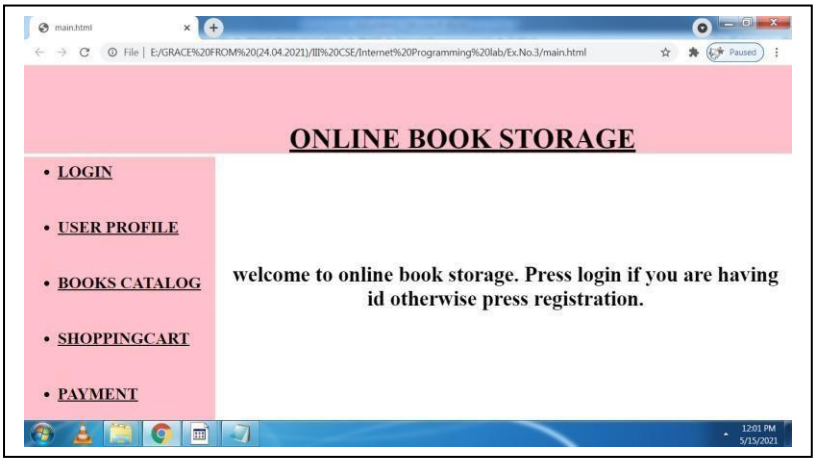
Order.html

```
<html>
 <head><title>order conformation</title><M/head>
<body bgcolor="cyan">
<center>
<h1><b>AMAZON</h1>
```

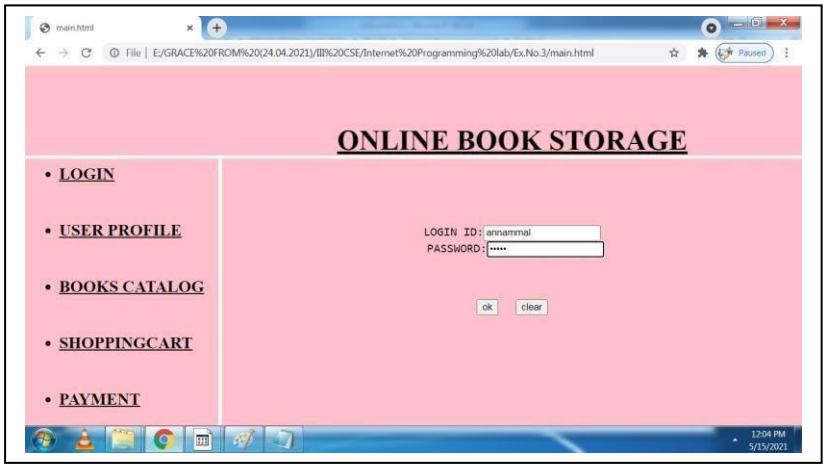
```
<pre><strong>
<b>Your order Is Conformed
</strong></pre>
<h2><b>THANK YOU</h2>
</center>
</body>
</html>
```

OUTPUT

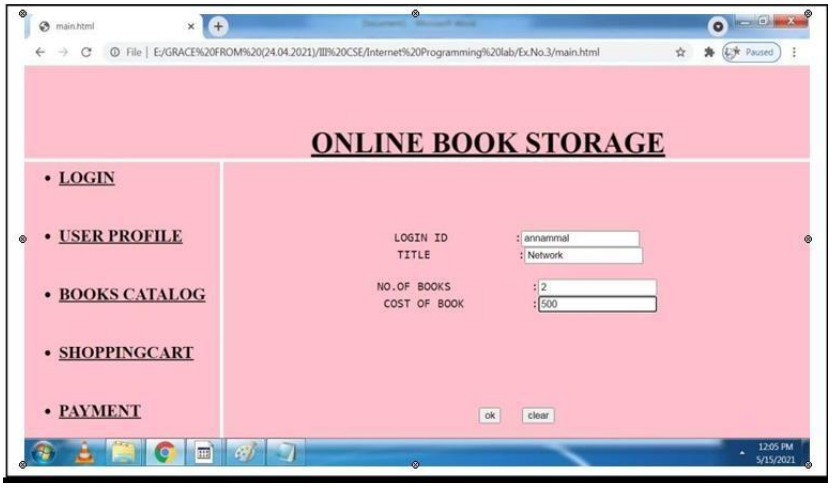
Main.html



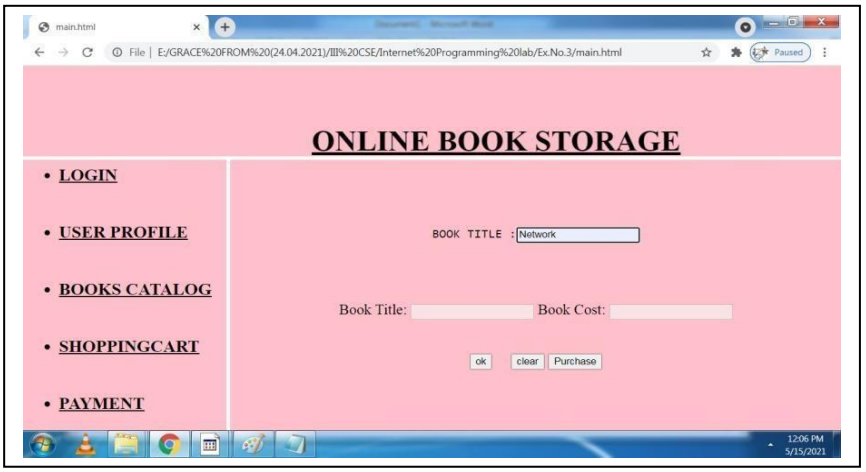
Login.html



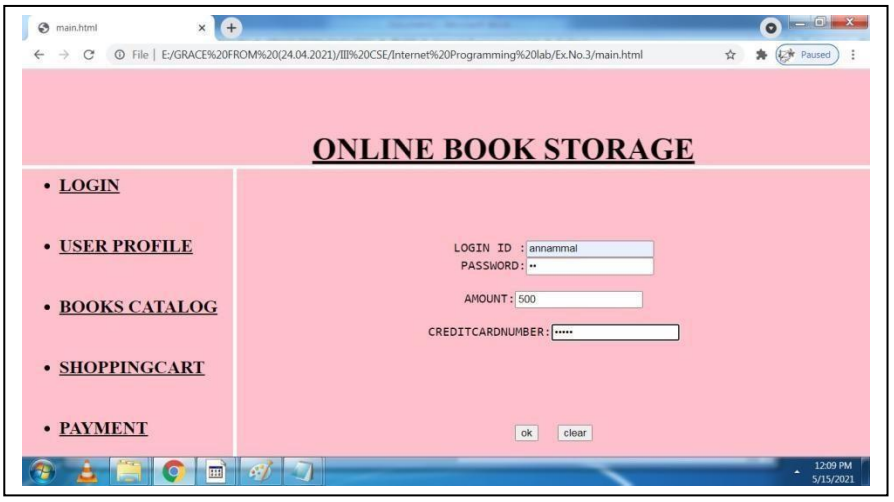
Catalog.html



Scart.html



Payment.html



Order.html

RESULT:

Thus the program was executed successfully.

Ex.No.4 (a)	INVOKING SERVLETS FROM HTML FORM
Date:	

AIM:

To write a Java program to invoke servlets from HTML form.

ALGORITHM:

- Start the program.
- Create the form as ResponseDemoServlet with textfield,submit
- Button and reset button.
- The class ResponseDemoServlet implements the interface servlet.
- Create the out object for the PrintWriter class and call the method
- Getwriter as response.getwriter.
- Display the server port, server name, protocol, character encoding, content length.
- Create the class as enumeration with parameters as object.
- Stop the program.

SOURCE CODE:

Client Page:

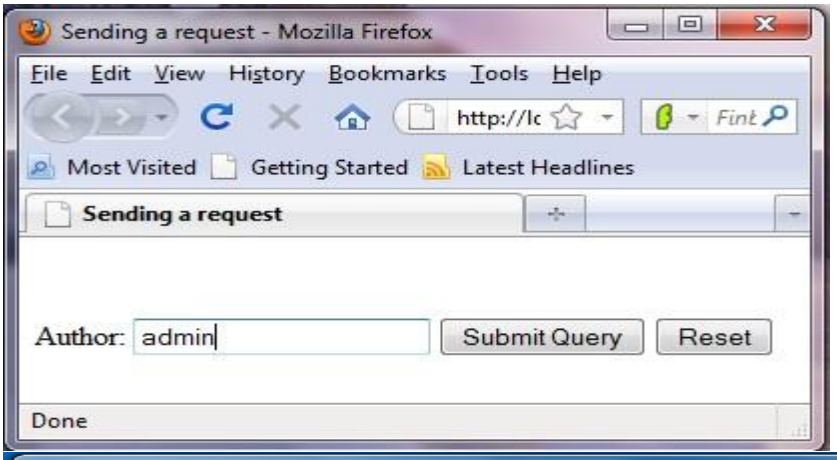
```
<HTML>
<HEAD>
<TITLE>Sending a request</TITLE>
</HEAD>
<BODY>
<FORM ACTION= ResponseDemoServlet METHOD="POST">
<BR><BR>
Author: <INPUT TYPE="TEXT" NAME="Author">
<INPUT TYPE="SUBMIT" NAME="Submit">
<INPUT TYPE="RESET" VALUE="Reset">
</FORM>
</BODY>
</HTML>
```

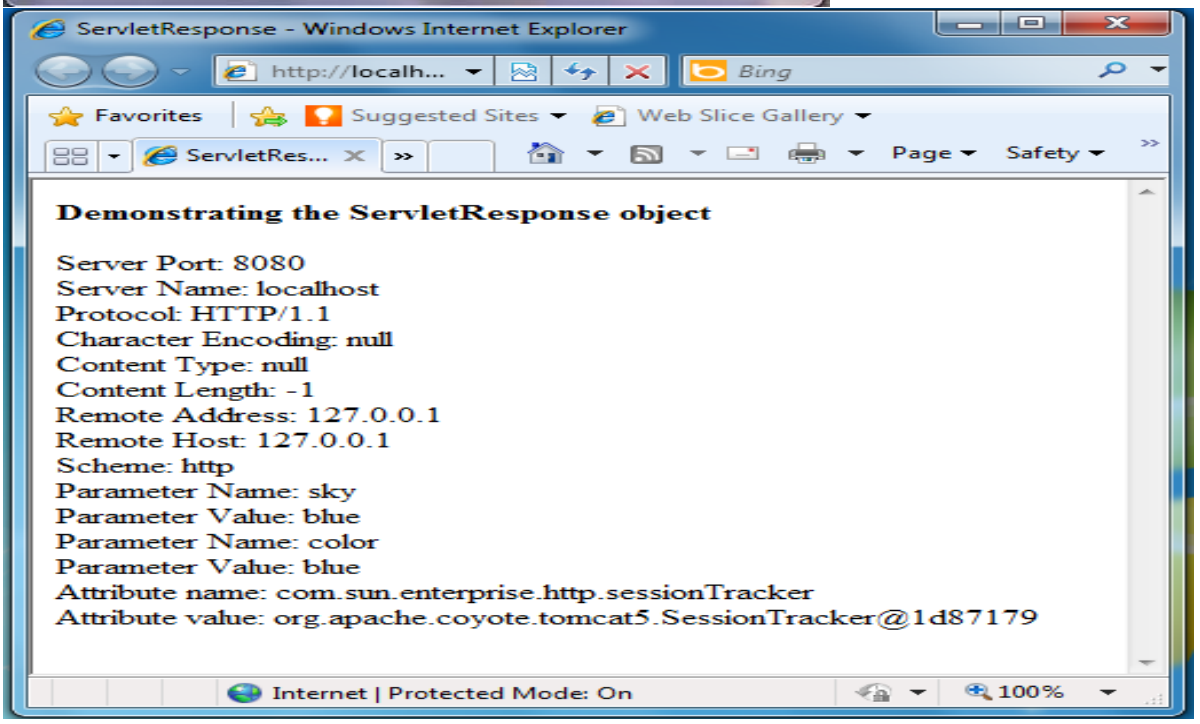
Server Page:

```
importjavax.servlet.*;        importjava.io.PrintWriter;
importjava.io.IOException;
importjava.util.Enumeration;
public class ResponseDemoServlet implements Servlet {
public void init(ServletConfigconfig) throws ServletException {
```

```
} public void destroy() { }
public void service(ServletRequest request, ServletResponse response)
throwsServletException, IOException {
PrintWriter out = response.getWriter();
out.println("<HTML>");
out.println("<HEAD>");
out.println("<TITLE>");
out.println("ServletResponse");
out.println("</TITLE>");
out.println("</HEAD>");
out.println("<BODY>");
out.println("<B>Demonstrating the ServletResponse object</B>");
out.println("<BR>");
out.println("<BR>Server Port: " + request.getServerPort()); out.println("<BR>Server
Name: " + request.getServerName()); out.println("<BR>Protocol: " +
request.getProtocol()); out.println("<BR>Character Encoding: " +
request.getCharacterEncoding()); out.println("<BR>Content Type: " +
request.getContentType()); out.println("<BR>Content Length: " +
request.getContentLength()); out.println("<BR>Remote Address: " +
request.getRemoteAddr()); out.println("<BR>Remote Host: " + request.getRemoteHost());
out.println("<BR>Scheme: " + request.getScheme());
Enumeration parameters = request.getParameterNames(); while
(parameters.hasMoreElements()) {
String parameterName = (String) parameters.nextElement();
out.println("<br>Parameter Name: " + parameterName);
out.println("<br>Parameter Value: " +
request.getParameter(parameterName));
}
Enumeration attributes = request.getAttributeNames(); while
(attributes.hasMoreElements()) {
String attribute = (String) attributes.nextElement(); out.println("<BR>Attribute name: " +
attribute); out.println("<BR>Attribute value: " + request.getAttribute(attribute));
}
out.println("</BODY>");
out.println("</HTML>");
}
public String getServletInfo() { return
null;
}
```

publicServletConfiggetServletConfig() {return null;
}
} OUTPUT:





RESULT:

Thus the program for invoking servlet from HTML form was executed and the output was verified.

Ex.No.4 (b)	SESSION TRACKING USING HIDDEN FORM FIELDS SESSION
Date:	TRACKING FOR A HIT COUNT

AIM:

To write a program to implement session tracking in servlets using hidden form fields.

ALGORITHM:

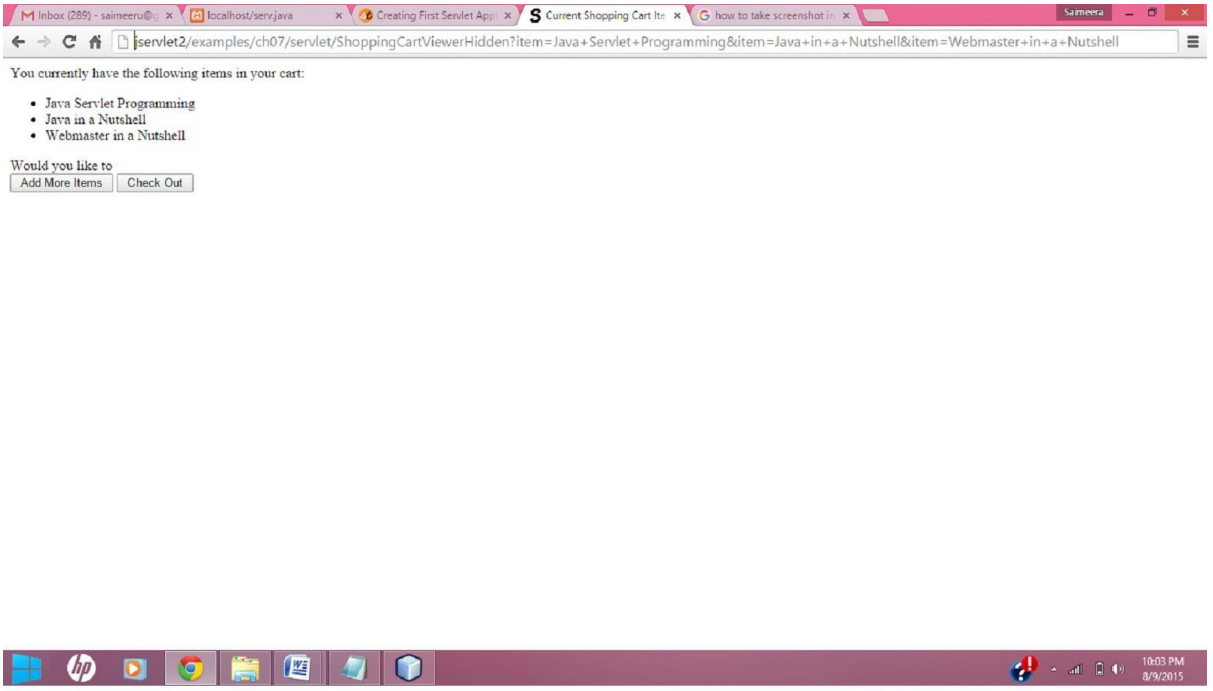
1. Create a servlet program using http for session tracking using hidden as an input type in hidden form fields.
2. Set classpath where servlet-api.jar file resides.
3. Compile the servlet program using javac programname.java
4. Place the class file …\Tomcat 5.5\webapps\ROOT\WEB-INF\classes\ folder.
5. Modify the web.xml file using your servletClassName.
6. Invoke the class file using http://localhost:8080/servetClassName from your browser

PROGRAM:

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

public class ShoppingCartViewerHidden extends HttpServlet {

  public void doGet(HttpServletRequest req, HttpServletResponse res)
                        throws ServletException, IOException {
    res.setContentType("text/html");
    PrintWriter out = res.getWriter();
    out.println("<HEAD><TITLE>Current Shopping Cart Items</TITLE></HEAD>");
    out.println("<BODY>");
    // Cart items are passed in as the item parameter.
    String[] items = req.getParameterValues("item");
    // Print the current cart items.
    out.println("You currently have the following items in your cart:<BR>");
    if (items == null) {
      out.println("<B>None</B>");
    }
    else                        {
      out.println("<UL>");
      for (int i = 0; i < items.length; i++) {
        out.println("<LI>" + items[i]);
      }
      out.println("</UL>");
    }
  // Ask if the user wants to add more items or check out.
```

```
    // Include the current items as hidden fields so they'll be passed on.

    out.println("<FORM METHOD=GET>"); // submit to self
    if (items != null) {
      for (int i = 0; i < items.length; i++) {
        out.println("<INPUT TYPE=HIDDEN NAME=item VALUE=\"" +
          items[i] + "\">");      }
    }
    out.println("Would you like to<BR>");
    out.println("<INPUT TYPE=SUBMIT VALUE=\" Add More Items \">");
    out.println("<INPUT TYPE=SUBMIT VALUE=\" Check Out \">");
    out.println("</FORM>");
    out.println("</BODY></HTML>");
  }
}
```

OUTPUT:



RESULT:

Thus a program was implemented for session tracking using hidden form fields

Ex.No.4 (b) Date:	SESSION TRACKING USING HIT COUNT

AIM:

To write a program to implement session tracking in servlets using hit count.

ALGORITHM:

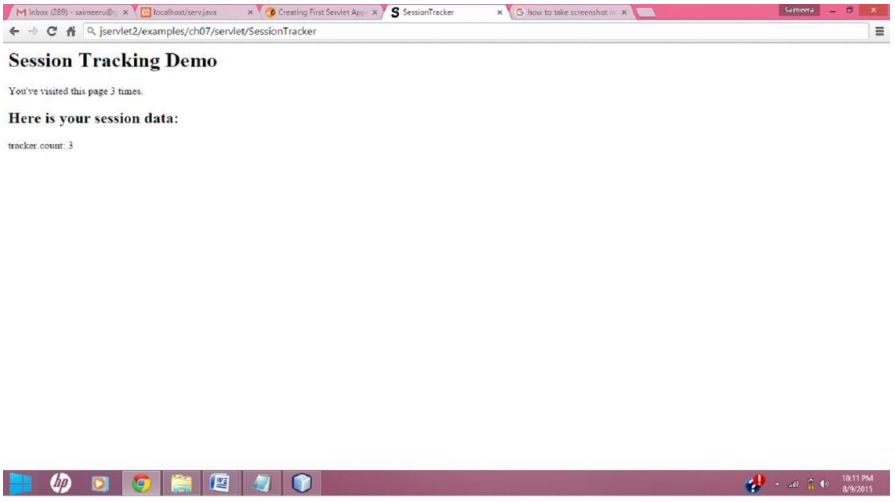
1. Create a servlet program using http in which a count is maintained for session tracking.
2. Set classpath where servlet-api.jar file resides.
3. Compile the servlet program using javac programname.java
4. Place the class file …\Tomcat 5.5\webapps\ROOT\WEB-INF\classes\ folder.
5. Modify the web.xml file using your servletClassName.
6. .Invoke the class file using http://localhost:8080/servetClassName from your browser

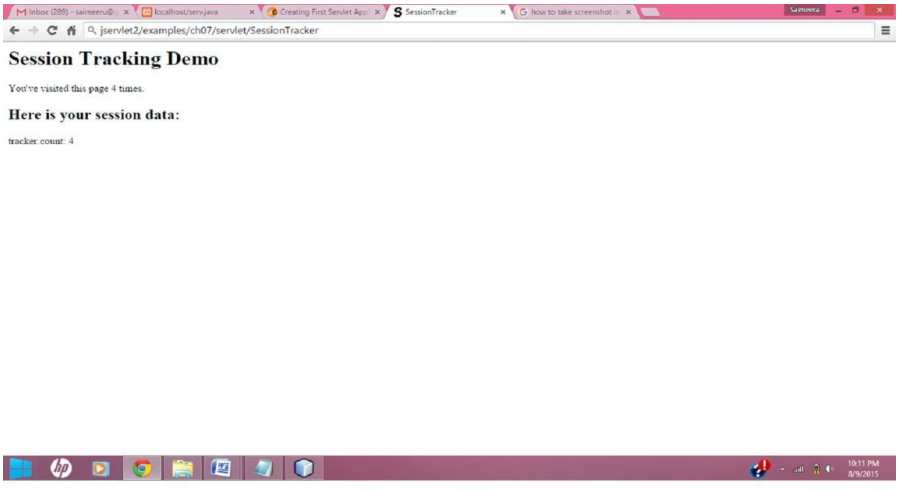
PROGRAM:

```
import          java.io.*;
import         java.util.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class SessionTracker extends HttpServlet {
public void doGet(HttpServletRequest req, HttpServletResponse res)
                        throws ServletException, IOException {
   res.setContentType("text/html");
   PrintWriter out = res.getWriter();
   // Get the current session object, create one if necessary
   HttpSession session = req.getSession();
/* Increment the hit count for this page. The value is saved in this client's session under the name
"tracker.count"*/
   Integer count = (Integer)session.getAttribute("tracker.count");
   if (count == null)
     count = new Integer(1);
   else
     count = new Integer(count.intValue() + 1);
   session.setAttribute("tracker.count", count);

   out.println("<HTML><HEAD><TITLE>SessionTracker</TITLE></HEAD>");
   out.println("<BODY><H1>Session Tracking Demo</H1>");

   // Display the hit count for this page
   out.println("You've visited this page " + count +
   ((count.intValue() == 1) ? " time." : " times."));
```

```
    out.println("<P>");

    out.println("<H2>Here is your session data:</H2>");
    Enumeration enum = session.getAttributeNames();
    while (enum.hasMoreElements()) {
      String name = (String) enum.nextElement();
      out.println(name + ": " + session.getAttribute(name) + "<BR>");
    }
    out.println("</BODY></HTML>");
  }}
```

OUTPUT:





RESULT:

Thus a program was implemented for session tracking using hit count.

Ex No: 5 Date:	THREE-TIER ARCHITECTURE – ONLINE EXAMINATION

AIM:

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

ALGORITHM:

1. Create a HTML index page which accepts the Seat number and name followed by the answers for a set of questions.
2. Invoke the servlet when user presses submit button.
3. In servlet enable JDBC connection wherein you have already created an SQL table called student with seatno, name and total as its column.
4. Insert the entry of user by query and execute query upadate, create another query to display all the entries in the table and Execute that query to display the final output.
5. Include appropriate exception handlers for each key steps involved.

PROGRAM:

SERVLET CODE:

```
import java.io.*;
import java.sql.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class StudentServlet3 extends HttpServlet
{
String message,Seat_no,Name,ans1,ans2,ans3,ans4,ans5; int Total=0;
Connection connect; Statement stmt=null; ResultSet rs=null;
public void doPost(HttpServletRequest request,HttpServletResponse response) throws
ServletException,IOException
{
try
{
String url="jdbc:odbc:NEO"; Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
connect=DriverManager.getConnection(url,"root ","saphira ");
message="Thank you for participating in online Exam";
}
catch(ClassNotFoundException cnfex){ cnfex.printStackTrace();
}
catch(SQLException sqlex)
{
sqlex.printStackTrace();
```

```
}
catch(Exception excp){ excp.printStackTrace();
}
Seat_no=request.getParameter("Seat_no"); Name=request.getParameter("Name");
ans1=request.getParameter("group1");        ans2=request.getParameter("group2");
ans3=request.getParameter("group3");        ans4=request.getParameter("group4");
ans5=request.getParameter("group5"); if(ans1.equals("True"))
Total+=2;
if(ans2.equals("False"))
Total+=2;
if(ans3.equals("True"))
Total+=2;
if(ans4.equals("False"))
Total+=2;
if(ans5.equals("False"))
Total+=2;
 try
{
Statement stmt=connect.createStatement();
String query="INSERT INTO student("+"Seat_no,Name,Total"+")
VALUES('"+Seat_no+"','"+Name+"','"+Total+"')";
int result=stmt.executeUpdate(query); stmt.close();
}catch(SQLException                    ex){
System.out.println("Query not executed");
}
response.setContentType("text/html");
 PrintWriter out=response.getWriter();
 out.println("<html>"); out.println("<head>"); out.println("</head>");
out.println("<body       bgcolor=cyan>");       out.println("<center>");
out.println("<h1>"+message+"</h1>\n");
out.println("<h3>Yours results stored in our database</h3>"); out.print("<br><br>");
out.println("<b>"+"Participants and their Marks"+"</b>"); out.println("<table border=5>");
try
{
Statement stmt=connect.createStatement(); String query="SELECT * FROM student";
rs=stmt.executeQuery(query);                    out.println("<th>"+"Seat_no"+"</th>");
out.println("<th>"+"Name"+"</th>"); out.println("<th>"+"Marks"+"</th>"); while(rs.next())
{
out.println("<tr>");
out.print("<td>"+rs.getInt(1)+"</td>");
out.print("<td>"+rs.getString(2)+"</td>");
```

```
out.print("<td>"+rs.getString(3)+"</td>");
out.println("</tr>");
}
out.println("</table>");
}
catch(SQLException ex){
System.out.println("Query didnt select any row!");
 } finally
{
try
{
if(rs!=null)
rs.close();
if(stmt!=null)
stmt.close();
if(connect!=null)
connect.close();
}
catch(SQLException e){ }
}
out.println("</center>");
out.println("</body></html>");
Total=0;
} }
```

HTML CODE:

```
<html>
<head><title>Database Test</title></head><body>
<center>
<h1>Online Examination</h1></center>
<form action="StudentServlet3.view" method="POST">
<div align="left"><br></div>
<b>Seat Number:</b><input type="text" name="Seat_no"><div align="Right">
<b>Name:</b><input type="text" name="Name" size="50"><br></div>
<br><br>
<b>1. Every host implements transport layer.</b><br/><input type="radio" name="group1"
value="True">True <input type="radio" name="group1" value="False">False<br>

<b>2. It is a network layer's responsibility to forward packets reliably from source to destination
</b><br/>
<input type="radio" name="group2" value="True">True
```

<input type="radio" name="group2" value="False">False

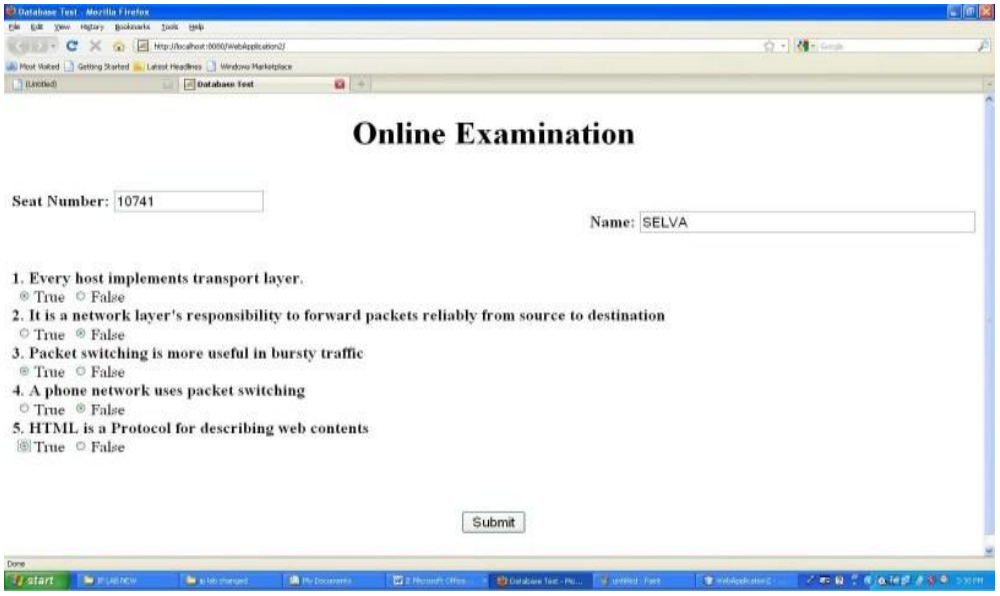
3. Packet switching is more useful in bursty traffic
<input type="radio" name="group3" value="True">True
<input type="radio" name="group3" value="False">False
4. A phone network uses packet switching
<input type="radio" name="group4" value="True">True <input type="radio" name="group4" value="False">False

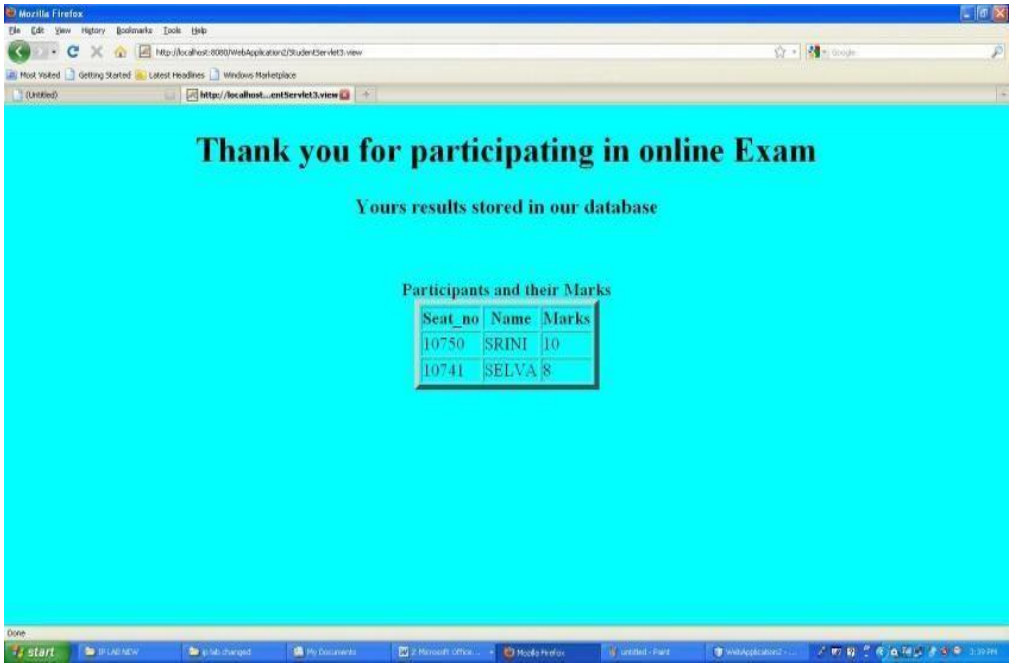
5. HTML is a Protocol for describing web contents
<input type="radio" name="group5" value="True">True
<input type="radio" name="group5" value="False">False

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

</form>
</body>
</html>

OUTPUT:





RESULT:

Thus a java servlet program to conduct online examination was successfully executed and the student marks are saved in database.

Ex No: 6	CONVERTING STATIC WEB PAGES INTO DYNAMIC WEB PAGES USING SERVLETS
Date:	

AIM:

To convert the static web pages into dynamic web pages using servlets and cookies.

PROCEDURE:

Step 1: we will create a html form for entering the user name,password and card ID.

Step 2: From the above HTML form, the servlet program is invoked in which the validity of the user name, password and card id is checked, if it is a valid user then the welcome message will be displayed otherwise the "invalid user" message will be displayed. In this servlet we set the cookies in which the current user name is stored.

Step 3: compile the above servlet Login servlet.java and copy its class file in tomcat folder at c:\tomcat directory\webapps\examples\WEB-INF\classes. Then edit the web.xml in WEB-INF folder.We must store he user information such as user name, password and card id in the web.xml using init-param.

Step 4: On successful login, the information from the cookie is checked and shopping cart page for corresponding user can be displayed.

Step 5: Compile the above servlet LoginSuccess.java and copy its class file in the tomcat's folder at c:\tomcatdirectory\webapps\examples\WEB-INF\classes. Then edit the web.xml in WEB-INF folder.

Step 6: Start tomcat web server. Open the web browser and display the login form created in step1.

Server.java

```
import java.io.*;
import java.net.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class server extends HttpServlet
 {
protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException
 {
response.setContentType("text/html;charset=UTF-8");
PrintWriter out = response.getWriter();
try
{
String usr=request.getParameter("user");
String pwd=request.getParameter("password");
String card=request.getParameter("cardID"); boolean
flag=true;
String[] userID=getInitParameter("usernames").split(",");
String[] password=getInitParameter("passwords").split(",");
String[] cardids=getInitParameter("cardIDs").split(",");
int i;
for(i=0;i<userID.length;i++)
{
if(userID[i].equals(usr)&&password[i].equals(pwd)&&cardids[i].equals(card))
{
flag=false;
Cookie MyCookie=new Cookie("CurrentUser", usr);
MyCookie.setMaxAge(60*60); response.addCookie(MyCookie);
response.sendRedirect("http://localhost:8080/examples/servlet/success");
}
}
if(flag==true)
{
out.print("Error");
out.println("<h4>Invalid user,please try again by clicking following link</h4>");
out.println("<a href='http://localhost:8080/examples/servlet'>"+"in.html");
}
}

finally{
{
out.close();
}
}
}
}
```

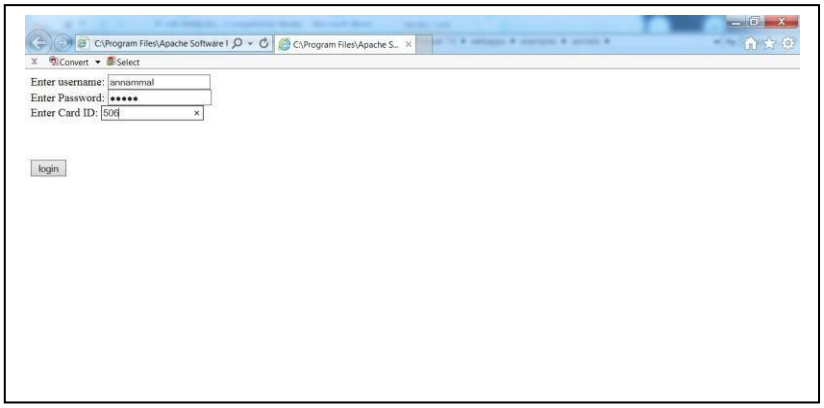
Success.java

```
import java.io.*;
import java.net.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class success extends HttpServlet {
protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
Cookie[] my_cookies=request.getCookies();
response.setContentType("text/html");
PrintWriter out=response.getWriter();
out.print("Login Success");
out.println("<b>");
String userName=null;
if(my_cookies!=null)
{
for(Cookie cookie:my_cookies)
{
if(cookie.getName().equals("currentUser"))
userName=cookie.getValue();
}
}
out.print("<h3>Login Success!!!Welcome</h3>");
out.print("<h2>This is a Shopping cart for"+userName+"</h2>");
out.close();
}
}
```

In.html

```
<html>
<head>
<body>
<form action="http://localhost:8080/examples/servlet/ser" method="post">
Enter username:
<input type="text" value""name="user">
<br>
Enter Password:
<input type="password" value""name="password">
<br>
Enter Card ID:
<input type="text" value""name="cardID">
<br>
<br> <br> <br>
<input type="submit" value="login">
</form>
</body>
```

OUTPUT



RESULT:

Thus the program to convert the static web pages into dynamic web pages using servlets and cookies was successfully executed.

Ex No: 7	CONVERTING STATIC WEB PAGES INTO DYNAMIC WEB PAGES USING JSP
Date:	

AIM:

To create a database with user information and books information. The books catalogue should be dynamically loaded from the database.

PROCEDURE:

1) Create your own directory under tomcat/webapps (e.g. tr1)
2) Copy the html files in tr1
3) Copy the jsp files also into tr1
4) Start tomcat give the following command

Catalina.bat run

At install-dir/bin

5) give url as http://localhost:8081/tr1/main.html

login.html

```
<html>
<body>
<form action="books.html">
User Name: <input type="text" name="un" value=""><br><br>
Password: <input type="password" name="pwd" value=""><br><br>
<input type="submit" value="Login">
</form>
</body>
</html>
```

books.html

```
<html>
<head>
</head>
<body>
<a href="http://localhost:8080/examples/jsp/view.jsp">View Books</a><br><br>
</body>
</html>
```

view.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1" pageEncoding="ISO-8859-1"%>
<%@page import="java.sql.*"%>
<%@page import="java.io.*"%>
<%
Connection connection = null;
Statement statement = null;
ResultSet resultSet = null;
%>
<!DOCTYPE html>
<html>
<body>
<h1>Retrieve data from database in jsp</h1>
<table border="1">
<tr>
<td>Book ID</td>
<td>Title</td>
<td>Author</td>
<td>Price</td>
<td>Quantity</td>
</tr>
<%
try
```

```
{
        Class.forName("com.mysql.jdbc.Driver");
        connection=DriverManager.getConnection("jdbc:mysql://localhost:3306/ebookshop","root","");
        statement=connection.createStatement();
        String sql ="select * from books";
        resultSet = statement.executeQuery(sql);
        while(resultSet.next())
        {
                %>
                <% out.print("welcome to jsp"); %>
                <tr>
                <td><%=resultSet.getString("id") %></td>
                <td><%=resultSet.getString("title") %></td>
                <td><%=resultSet.getString("author") %></td>
                <td><%=resultSet.getString("price") %></td>
                <td><%=resultSet.getString("qty")%></td>
                </tr>
                <%
        }
        connection.close();
}
catch (Exception e)
{
e.printStackTrace();
}
%>
</table>
</body>
</html>
```

OUTPUT:

Retrieve data from database in jsp

welcome to jsp welcome to jsp welcome to jsp

Book ID	Title	Author	Price	Quantity
1	Java	Deital	450	10
2	HTML	Deital	350	10
1	PHP	Herbert	500	10

Ex No:8	PARSING XML DOCUMENT
Date:	

AIM:

- ✓ To create and save an XML document at the server, which contain ten users information.
- ✓ To write a program which takes user id as an input and returns the user details by taking the user information from the XML document.

PROCEDURE:

- Save Students information in the XML file on the specific location.
- Create and establish the connection between html file and XML file.
- Get the user ID as input
- Display the student's information

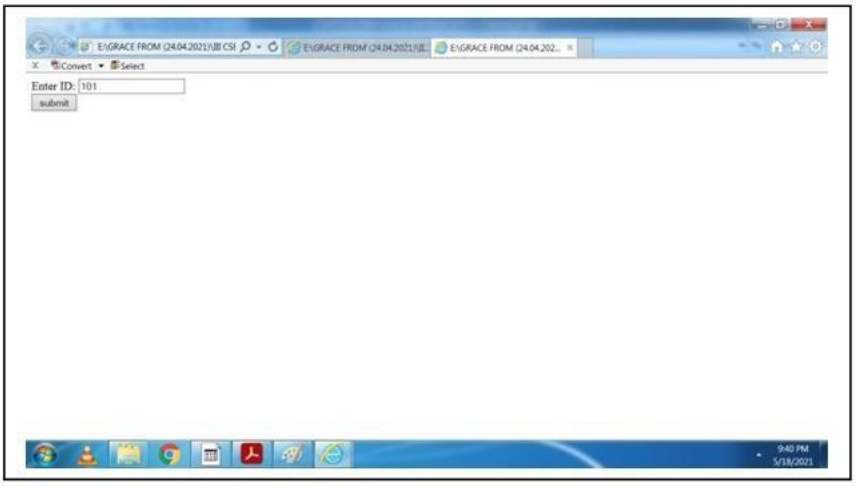
Student.xml

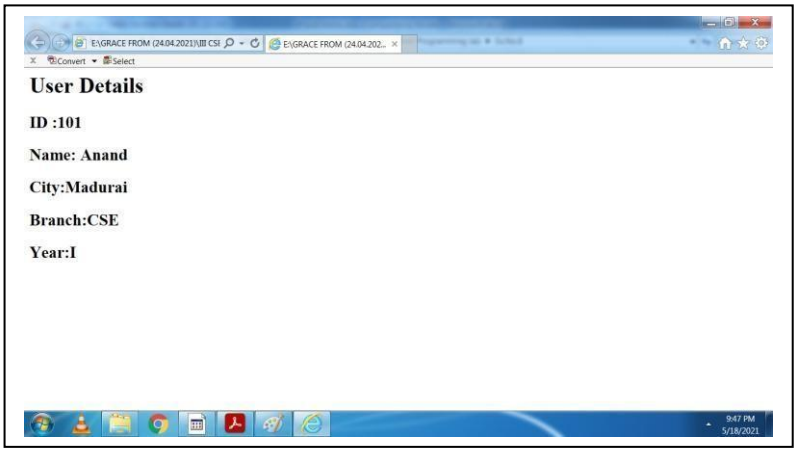
```
<?xml version="1.0" encoding="UTF-8"?>
<Student>
<PersonDetails>
<id>101</id>
<name>Anand</name>
<city>Madurai</city>
<Branch>CSE</Branch>
<Year>I</Year>
</PersonDetails>
<PersonDetails>
<id>102</id>
<name>Anu</name>
<city>Konam</city>
<Branch>CSE</Branch>
<Year>II</Year>
</PersonDetails>
<PersonDetails>
<id>103</id>
<name>Archana</name>
<city>Madurai</city>
<Branch>CSE</Branch>
<Year>I</Year>
</PersonDetails>
<PersonDetails>
<id>104</id>
<name>Monica</name>
<city>Nellai</city>
<Branch>CSE</Branch>
<Year>III</Year>
</PersonDetails>
</Student>
```

Login.html

```
<!DOCTYPE html>
<html>
<head>
</head>
<body>
<script type="text/javascript">
function Display()
{
if(window.XMLHttpRequest)
{
xmlhttp=new XMLHttpRequest();
}
xmlhttp.open("GET","student.xml",false);
xmlhttp.send(); xmlDoc=xmlhttp.responseXML;
var x=xmlDoc.getElementsByTagName("PersonDetails"); var
key_id=document.getElementById("key").value; for(i=0;i<x.length;i++)
{
if(key_id.match(x[i].getElementsByTagName("id")[0].childNodes[0].node Value))
j=i;
}
document.write("<h3>User Details are...</h3> <hr> Registeration ID=");
document.write(x[j].getElementsByTagName("id")[0].childNodes[0].node Value);
document.write("</br> Name=");
document.write(x[j].getElementsByTagName("name")[0].childNodes[0].nodeValue);
document.write("</br> City=");
document.write(x[j].getElementsByTagName("city")[0].childNodes[0].nodeValue);
document.write("</br> Branch=");
document.write(x[j].getElementsByTagName("Branch")[0].childNodes[0].nodeValue);
document.write("</br> Year=");
document.write(x[j].getElementsByTagName("Year")[0].childNodes[0].nodeValue);
document.write("</br> ");
}
</script>
<form name='myform'> Enter ID:
<input type='text' id='key'/><br/>
<input type='button' value='submit' onclick='Display()'/>
</form>
</body>
</html>
```

OUTPUT





RESULT:

Thus the program to create and save an XML document at the server was executed successfully.

Ex No: 9 Date:	VALIDATE THE FORM USING PHP REGULAR EXPRESSION

AIM:

To write a PHP program to validate the form using PHP regular expression.

ALGORITHM:

Step1 : PHP validates the data at the server-side, submitted by HTML form

Step2 : Create the Php program and store the file in the xampp→ htdocs

Step3: Validate Empty String, Validate String, Validate Numbers, Validate Email Validate URL, input length.

Step4: select Start →Run and type http://localhost/hello.php to execute the php program.

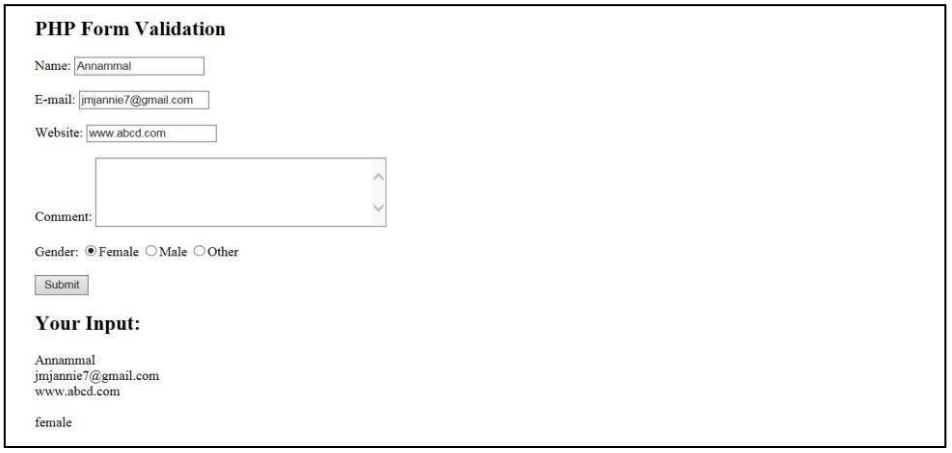
Step 5 : Stop the program.

PROGRAM:

```
<?php
// define variables and set to empty values
$name = $email = $gender = $comment = $website = "";

if ($_SERVER["REQUEST_METHOD"] == "POST") {
  $name = test_input($_POST["name"]);
  $email = test_input($_POST["email"]);
  $website = test_input($_POST["website"]);
  $comment = test_input($_POST["comment"]);
  $gender = test_input($_POST["gender"]);
}

function test_input($data) {
  $data = trim($data);
  $data = stripslashes($data);
  $data = htmlspecialchars($data);
  return $data;
}
?>

<h2>PHP Form Validation </h2>
<form method="post" action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]);?>">
  Name: <input type="text" name="name">
  <br><br>
```

```
  E-mail: <input type="text" name="email">
  <br><br>
  Website: <input type="text" name="website">
  <br><br>
  Comment: <textarea name="comment" rows="5" cols="40"></textarea>
  <br><br>
  Gender:
  <input type="radio" name="gender" value="female">Female
  <input type="radio" name="gender" value="male">Male
  <input type="radio" name="gender" value="other">Other
  <br><br>
  <input type="submit" name="submit" value="Submit">
</form>

<?php
echo "<h2>Your Input:</h2>"; echo
$name;
echo "<br>"; echo
$email;       echo
"<br>"; echo
$website; echo
"<br>"; echo
$comment; echo
"<br>"; echo
$gender;
?>
</body>
</html>
```

OUTPUT



RESULT:

Thus the program the form using PHP regular expression was successfully executed.

Ex No: 10 Date:	IMPLEMENTING AN APPLICATION WITH WEB SERVICES

AIM:

To write a web services for predicting for any product sales.

PROCEDURE:

- Open the Home page.
- View the 2 products.
- Put the rating by user.
- Display the high rating product on the top of the page.

PROGRAM:

Page.html

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
<html lang="en">
<head>
<title>AJAX 5 Star Rating</title>
<script src="http://code.jquery.com/jquery-latest.js"></script>
<script>
// This is the first thing we add
$(document).ready(function() {
$('.rate_widget').each(function(i) { var
widget = this;
var out_data = {
widget_id : $(widget).attr('id'),
fetch: 1
};
$.post( 'ratings.php',
out_data,
function(INFO) {
$(widget).data( 'fsr', INFO );
set_votes(widget);
},
'json'
);
});
$('.ratings_stars').hover(
// Handles the mouseover
function() {
$(this).prevAll().andSelf().addClass('ratings_over');
$(this).nextAll().removeClass('ratings_vote');
},
// Handles the mouseout
function() {
$(this).prevAll().andSelf().removeClass('ratings_over');
// can't use 'this' because it wont contain the updated data set_votes($(this).parent());
}
```

```
);


// This actually records the vote
$('.ratings_stars').bind('click', function() { var
star = this;
var widget = $(this).parent(); var
clicked_data = { clicked_on :
$(star).attr('class'),
widget_id : $(star).parent().attr('id')
};
$.post(         'ratings.php',
clicked_data,
function(INFO)          {
widget.data( 'fsr', INFO );
set_votes(widget);
},
'json'
);
});
});
function set_votes(widget) {
var avg = $(widget).data('fsr').whole_avg;
var votes = $(widget).data('fsr').number_votes; var exact
= $(widget).data('fsr').dec_avg;
window.console && console.log('and now in set_votes, it thinks the fsr is ' +
$(widget).data('fsr').number_votes);
$(widget).find('.star_' + avg).prevAll().andSelf().addClass('ratings_vote');
$(widget).find('.star_' + avg).nextAll().removeClass('ratings_vote');
$(widget).find('.total_votes').text( votes + ' votes recorded (' + exact + ' rating)'
);
}

// END FIRST THING
</script>
<style>
.rate_widget {
border: 1px solid #CCC;
overflow: visible;
padding:    10px;
position: relative;
width:      180px;
height: 32px;
}
.ratings_stars {
background: url('star_empty.png') no-repeat; float:
left;
height:     28px;
```

```
padding:    2px;
width: 32px;
}
.ratings_vote {
background: url('star_full.png') no-repeat;
}

.ratings_over {
background: url('star_highlight.png') no-repeat;
}
.total_votes            {
background: #eaeaea;
top: 58px;
left: 0; padding:
5px;
position: absolute;
}
.movie_choice {
font:  10px  verdana,  sans-serif;
margin: 0 auto 40px auto; width:
180px;
}
h1 {
text-align:         center;
width: 400px; margin:
20px auto;
}
</style>
</head>
<body>
<h1> Rate the following movies! </h1>
<div class='movie_choice'> Rate:
Raiders of the Lost Ark
<div id="r1" class="rate_widget">
<div class="star_1 ratings_stars"></div>
<div class="star_2 ratings_stars"></div>
<div class="star_3 ratings_stars"></div>
<div class="star_4 ratings_stars"></div>
<div class="star_5 ratings_stars"></div>
<div class="total_votes">vote data</div>
</div>
</div>
<div class='movie_choice'> Rate:
The Hunt for Red October
<div id="r2" class="rate_widget">
<div class="star_1 ratings_stars"></div>
<div class="star_2 ratings_stars"></div>
<div class="star_3 ratings_stars"></div>
```

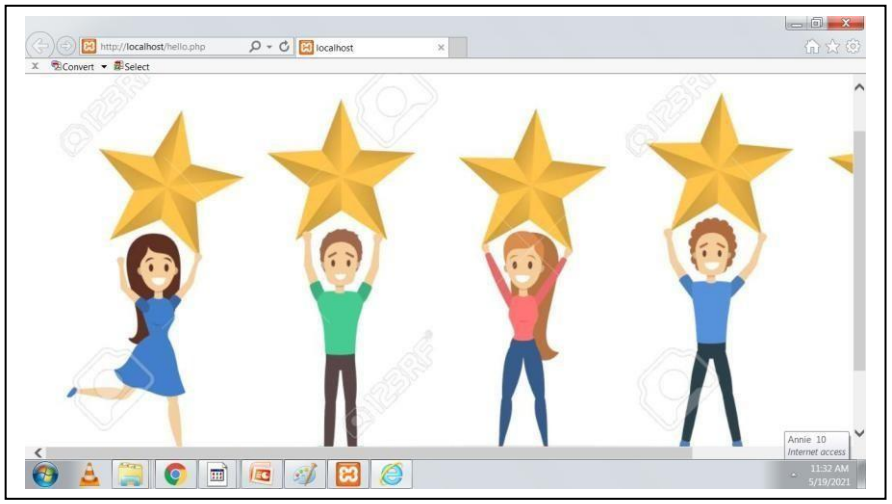
```
<div class="star_4 ratings_stars"></div>
<div class="star_5 ratings_stars"></div>
<div class="total_votes">vote data</div>
</div>
</div>
</body>
</html>
```

Ratings.php

```
<?php
$rating = new ratings($_POST['widget_id']); isset($_POST['fetch']) ?
$rating->get_ratings() : $rating->vote(); class ratings {
var $data_file = './ratings.data.txt';
private $widget_id;
private $data = array(); function
__construct($wid) {
$this->widget_id = $wid;
$all = file_get_contents($this->data_file);
if($all) {
$this->data = unserialize($all);
}
}
public function get_ratings() { if($this-
>data[$this->widget_id]) {
echo json_encode($this->data[$this->widget_id]);
}
else {
$data['widget_id'] = $this->widget_id;
$data['number_votes'] = 0;
$data['total_points'] = 0;
$data['dec_avg'] = 0;
$data['whole_avg'] = 0; echo
json_encode($data);
}}
public function vote() {
# Get the value of the vote
preg_match('/star_([1-5]{1})/', $_POST['clicked_on'], $match);
$vote = $match[1];
$ID = $this->widget_id;
# Update the record if it exists
if($this->data[$ID]) {
$this->data[$ID]['number_votes'] += 1;
$this->data[$ID]['total_points'] += $vote;
}
# Create a new one if it doesn't else
{
```

```
$this->data[$ID]['number_votes'] = 1;
$this->data[$ID]['total_points'] = $vote;
}
$this->data[$ID]['dec_avg'] = round( $this->data[$ID]['total_points'] / $this-
>data[$ID]['number_votes'], 1 );
$this->data[$ID]['whole_avg'] = round( $this->data[$ID]['dec_avg'] );
file_put_contents($this->data_file, serialize($this->data));
$this->get_ratings();
}
# ---
# end class
}
```

OUTPUT:



Result:

Thus the web service for predicting for any product sales has been executed successfully.