**AIM:** Develop static pages (using only HTML) of an online Book store.The pages should resemble: www.amazon.com. The website should consist the following pages.

• Home page

• Registration and user Login

• User profile page

• Books catalog

• Shopping cart

• Payment by credit card and Order Conformation

**PROCEDURE:**

**Home page**

**Main.html:**

<html>

<head>

<title>Amazon</title>

</head>

<body bgcolor="cyan"><center>

<strong><h1>Welcome to AMAZON</h1></strong>

<form method="post" action="login.html" target=\_blank >

<h4>for books</h4>

<input type="submit" value="click here">

</form>

</center>

</body>

</html>

**Registration and user Login**

**Login.html:**

<html>

<head>

<title>

login page</title>

</head>

<body bgcolor="cyan"><center>

<strong><h1> AMAZON </h1></strong></center>

<right>

<table align="right">

<tr>

<td><h4>user name</td>

<td><input type="text" ></td>

<td></td>

</tr>

<tr>

<td><h4>password</td>

<td><input type="password"></td>

<td></td>

</tr>

<tr>

<td>

<form method="post" action="catalog.html" >

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

</form>

</td>

<td>

<form method="post" action="userpro.html" >

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

&nbsp;&nbsp;

<input type="reset" value="reset"></form></td>

</tr></table></body></html>

**User profile page**

**Userpro.html:**

<html>

<head>

<title>

login page</title>

</head>

<body bgcolor="cyan">

<center><strong><h1> AMAZON </h1></strong></center>

<form method="post" action="catalog.html" >

<right>

<table align="left">

<tr>

<td><h4>user name</td>

<td><input type="text" ></td>

<tr>

<tr>

<td><h4>password</td>

<td><input type="password"></td>

</tr>

<tr>

<td><h4>confirm password</td>

<td><input type="password"></td>

</tr>

<tr>

<td><h4>male &nbsp;&nbsp;

<option >

<input type="radio" name="sex" id="male"></td>

<td><h4>female &nbsp; &nbsp;

<input type="radio" name="sex" id="female" ></td>

</option>

</tr>

<tr>

<td>Address</td>

<td><textarea name="address" rows=5 cols=19>

</textarea>

</td>

<tr>

<td>

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

<td>

<input type="reset" value="reset"></td>

</tr>

</form>

</body>

</html>

**Books catalog**

**Catalog.html:**

<html>

<head>

<title>

books catalog</title>

</head>

<body bgcolor="cyan">

<center><h1>AMAZON</h1></center>

<form method="post" action="shopping.html">

<left>

<table>

<tr>

<td><b><h3>frontend books</td>

<td></td></tr>

<tr>

<td></td>

<td><h4>C&Ds</td>

</tr>

<tr>

<td></td>

<td><h4>Ads</td>

</tr>

<tr>

<td></td>

<td><h4>JAVA

</td></tr>

<tr>

<td><b><h3>backend books</td>

<td></td>

</tr>

<tr>

<td></td>

<td><h4>Oracle</td>

</tr>

<tr>

<td></td>

<td><h4>Ms SQL Server

</td></tr>

<tr>

<td></td>

<td><h4>MySql </td>

</tr>

</table>

</h4>

<center>

<b>for buy one of these books

<br>

</b><input type="submit" value="click here">

</center>

</form>

</body>

</html>

**Shopping cart**

**Shopping.html:**

<html>

<head><title>shopping cart</title>

</head>

<body bgcolor="cyan">

<center><h1>

Shopping Cart</h1></center>

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

<table align="center">

<tr>

<td>Text Books</td>

<td>

<select >

<optgroup label="select the book">

<option value="C&Ds">C&Ds

<option value="Ads">Ads

<option value="Java">Java

<option value="Oracle">Oracle

<option value="Ms SQL Server">Ms SQL Server

<option value="MySql">MySql

</optgroup>

</select>

</td></tr>

<tr>

<td>

Quantity</td>

<td>

<input type="text" id="q">

</td></tr>

<tr>

<td></td>

<td>

<form method=post action="payment.html">

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

</form>

</td></tr>

</table>

<center>

<pre>Cost of one book is"500" + shipping "100"</pre>

</center>

<body>

</html>

**Payment by credit card**

**Payment.html:**

<html>

<head><title>payment</title></head>

<body bgcolor="cyan">

<center><h1>Payment By Credit Card</h1></center>

<form method=post action="ordrconform.html">

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

<table align="center">

<tr> <td>

<h4>Total Amount</h4></td>

<td><input type="text">

</td> </tr>

<tr>

<td><h4>Credit Card Number</td>

<td><input type="text"></td>

</tr> <tr> <td> </td>

<td><input type="submit" value=OK>

</td> </tr>

</table>

</form></body>

</html>

**Order Conformation**

**Ordrconform.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>

**AIM:** Validate the Registration, user login, user profile and payment by credit card pages using JavaScript.

**PROCEDURE:**

• **Home page:**

**Main.html:**

<frameset rows=”25%, 75 %”>

<frame src=”top.html” name=”top”>

<frameset cols=”25%,75%”>

<frame src=”left.html” name=”left”>

<frame src=”right.html” name=”right”>

</frameset>

</frameset>

**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 bgcolor=”pink”>

<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”><fontcolor=”black”> USER PROFILE</font></a></li><br>

<br>

<li><a href=”catalog.html” target=”right”><fontcolor=”black”> BOOKS CATALOG</font></a></li>

<br><br>

<li><a href=”scart.html” target=”right”><font color=”black”> SHOPPINGCART</font></a></li><br>

<br>

<li><a href=”payment.html” target=”right”><fontcolor=”black”> PAYMENT</font></a></li><br><br>

<li><a href=”order.html” target=”right”><font color=”black”> ORDER CONFIRMATION</font></a>

</li><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=="")

{

flag=0;

}

if(flag==1)

{

alert("VALID INPUT");

}

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">

</pre><br><br>

</div>

<br><br>

<div align="center">

<input type="submit" value="ok" onClick="validate()">&nbsp;&nbsp;&nbsp;&nbsp;

<input type="reset" value="clear" >

</form>

</body>

</html>

**User profile page**

**Profile.html:**

<html>

<body bgcolor=”pink”><br><br>

<script language=”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;

}

var str=document.myform.phno.value;

var x;

for(var i=0;i<str.length;i++)

{

x=str.substr(i,1)

if(!(x<=9))

{

flag=0;

break;

}

}

if(flag==1)

{

alert("VALID INPUT");

}

else

{

alert("INVALID INPUT");

document.myform.focus();

}}

</script>

<form name="myform">

<div align="center"><pre>

NAME :<input type="text" name="name"><br> ADDRESS :<input type="type" name="addr"><br>

CONTACT NUMBER:<iput type="text" name="phno"><br> LOGINID :<input type="text" name="id">

<br> 19

PASSWORD :<input type="password" name="pwd"></pre><br><br>

</div>

<br><br>

<div align="center">

<input type="submit" value="ok" onClick="validate()">&nbsp;&nbsp;&nbsp;

<input type="reset" value="clear">

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

**Books catalog :**

**Scart.html:**

<html>

<body bgcolor="pink"><br><br><br>

<script language="javascript">

function validate()

{

var flag=1;

if(document.myform.title.value=="")

{

flag=0;

}

str=document.myform.title.value;

if(str=="c")

{

document.writeln("<body bgcolor=pink>");

document.writeln("title-->c"+" cost-->444");

}

else if(str=="jsp")

{

document.writeln("<body bgcolor=pink>");

document.writeln("title-->jsp"+" cost-->555");

}

else

{

flag=0;

}

if(flag==1)

{

alert("VALID INPUT");

}

else

{

alert("INVALID INPUT");

document.myform.focus();

}

}

</script>

<form name="myform" >

<div align="center"><pre>

BOOK TITLE :<input type="text" name="title"><br> 21

</pre><br><br>

</div>

<br><br>

<div align="center">

<input type="submit" value="ok" onClick="validate()">&nbsp;&nbsp;&nbsp;&nbsp;

<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==""||

document.myform.date.value=="")

{

flag=0;

}

var str=document.myform.no.value;

var x;

for(var i=0;i<str.length;i++)

{

x=str.substr(i,1)

if(!(x<=9))

{

flag=0;

break;

}

}

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" >

<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>

DATE :<input type="text" name="date"><br></pre><br><br>

</div>

<br><br>

<div align="center">

<input type="submit" value="ok" onClick="validate()">&nbsp;&nbsp;&nbsp;&nbsp;

<input type="reset" value="clear">

</form>

</body>

</html>

**Payment by 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;

for(var i=0;i<str.length;i++)

{

x=str.substr(i,1);

if(!(x<=9))

{

flag=0;

break;

}

}

str=document.myform.num.value;

for(var i=0;i<str.lenght;i++)

{

x=str.substr(i,1);

if(!(x<=9))

{

flag=0;

break;

}

}

if(flag==1)

{

alert("VALID INPUT");

}

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> CREDITCARDNUMBER:<input

type="PASSWORD"

name="num+"><br></pre><br><br>

</div>

<br><br>

<div align="center">

<input type="submit" value="ok" onClick="validate()">&nbsp;&nbsp;&nbsp;&nbsp;

<input type="reset" value="clear" >

</form>

</body>

</html>

**Order Conformation**

**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>

**AIM:**

Create and Save an XML document at the server, which contains 10 users information. Write program, which takes user ID as input and returns the user details by taking the user information from XML Document.

**Procedure:**

**Login Page:**

**Std.html:**

<html>

<head>

<script>

function LoadXmlDoc(dname)

{

xmldoc=new ActiveXObject("Microsoft.XMLDOM");

xmldoc.async="false";

xmldoc.load(dname);

return xmldoc;

}

function validate()

{

var i,k,j=0;

xmldoc=LoadXmlDoc("student.xml");

var v1=myform.n2.value;

if(v1.length==0)

window.alert("enter the roll no.");

else

{

v1=parseInt(v1);

arr=xmldoc.getElementsByTagName("students");

for(i=0;i<arr.length;i++)

{

var txt=xmldoc.getElementsByTagName("rollno")[i].childNodes[0].nodeValue; if(txt==v1)

{k=i;

j=1;

}

}

if(j==1)

{

nam=xmldoc.getElementsByTagName("name")[k].childNodes[0].nodeValue;

rol=xmldoc.getElementsByTagName("rollno")[k].childNodes[0].nodeValue;

per=xmldoc.getElementsByTagName("percentage")[k].childNodes[0].nodeValue; 47

document.write("<body bgcolor='pink'>");

document.write("<table border=1 align='center'><tr><th colspan='2'>USER

DETAILS</th></tr>");

document.write("<tr><th>Name::</th><td>"+nam+"</td></tr>"); document.write("<tr>

<th>RollNumber::</th><td>"+rol+"</td></tr>"); document.write("<tr><th>Percentage::</th>

<td>"+per+"</td></tr>"); document.write("</table></body>");

}

else

window.alert("roll number not found");

}

}

</script>

</head>

<body bgcolor="pink" text="red">

<form name="myform">

<table align="center">

<tr><td><B>RollNumber</B></td><td><input type="text" size=15

name="n2"></td></tr>

</table>

<br>

<center><input type=submit value="submit" name="b1" onClick="validate()"></center>

</form>

</body>

</html>

**Student XML Document:**

**Student.xml:**

<?xml version="1.0" ?>

<cse>

<students>

<rollno>501</rollno>

<name>ABC</name>

<percentage>65%</percentage>

</students>

<students>

<rollno>502</rollno>

<name>DEF</name>

<percentage>67%</percentage>

</students>

<students>

<rollno>503</rollno>

<name>GHI</name>

<percentage>69%</percentage>

</students>

<students>

<rollno>504</rollno>

<name>JKL</name>

<percentage>65%</percentage>

</students>

<students>

<rollno>505</rollno>

<name>MNO</name>

<percentage>73%</percentage>

</students>

<students>

<rollno>506</rollno>

<name>PQR</name>

<percentage>74%</percentage>

</students>

<students>

<rollno>507</rollno>

<name>stu</name>

<percentage>65%</percentage>

</students>

<students>

<rollno>508</rollno>

<name>VWX</name>

<percentage>70%</percentage>

</students>

<students>

<rollno>509</rollno>

<name>YZ</name>

<percentage>72%</percentage>

</students>

<students>

<rollno>510</rollno>

<name>PQR</name>

<percentage>75%</percentage>

</students>

</cse>

**Output:**

**AIM:**

Install TOMCAT web server. Convert the static webpages of assignments 2 into dynamic webpages using servlets and cookies. Hint: Users information (user id, password,credit card number) would be stored in web.xml. Each user should have a separate Shopping Cart.

**PROCEDURE:**

1. First install the tomcat into the system.
2. Then make a subdirectly(eg., tr) in the \tomcat\webapps.
3. Under tr create WEB-INF directory and also place the html files in this tr directory only.
4. Next under WEB-INF create two subclasses lib,classes and web.xml
5. Next place all the class files under the classes and jar files(servlet-api.jar,classes12.jar etc…) under lib
6. subdirectories.
7. After this start tomcat by giving the following command at the instll\_dir>tomcat>bin Catalina.bat run
8. At the I.E(web browser) give the url as http;//localhost:8080//tr/htmlfile or servlet url pattern
9. Portno 8080 is assigned for the tomcat.

**Home page:**

**Main.html:**

<html>

<body>

<br /><br /><br /><br /><br />

<h1 align="center"><U>ONLINE BOOK STORAGE</U></h1><br /><br /><br />

<h2 align="center"><pre>

<b>Welcome to online book storage.

Press LOGIN if you are having id

otherwise press REGISTRATION

</b></pre></h2>

<br /><br /><pre>

<div align="center"><a href="login.html">LOGIN</a><a href="reg.html"> REGISTRATION</a></div>

</pre>

</body>

</html>

**Login page:**

**Login.html:**

<html>

<body><br /><br /><br />

<form name="myform" method="post" action="login">

<div align="center"><pre>

LOGIN ID :<input type="text" name="id" /><br /> PASSWORD :<input type="password" name="pwd"

/></pre><br /><br />

</div>

<br /><br />

<div align="center">

<input type="submit" value="ok" onclick="validate()" />

&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="reset" value="clear" />

</div>

</form>

</body>

</html>

**Registration page:**

**Reg.html:**

<html>

<body><br /><br />

<form name="myform" method="post" action="reg">

<table align="center" >

<tr>

<td>NAME</td>

<td>:<input type="text" name="name" /></td>

</tr>

<tr>

<td>ADDRESS</td>

<td>:<input type="text" name="addr" /></td>

</tr>

<tr>

<td>CONTACT NUMBER</td>

<td>:<input type="text" name="phno" /></td>

</tr>

<tr>

<td>LOGINID</td>

<td>:<input type="text" name="id" /></td>

</tr>

<tr>

<td>PASSWORD</td>

<td>:<input type="password" name="pwd" /></td>

</tr>

</table>

<br /><br />

<div align="center">

<input type="submit" value="ok" onclick="validate()" />

&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="reset" value="clear" />

</div>

</form>

</body>

</html>

**User profile page:**

**Profile.html:**

<html>

<body><br /><br /><br />

<form name="myform" method="post" action="profile">

<div align="center"><pre>

LOGIN ID :<input type="text" name="id" /><br />

</pre><br /><br />

</div>

<br /><br />

<div align="center">

<input type="submit" value="ok" onclick="validate()" />

&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="reset" value="clear" />

</div>

</form>

</body>

</html>

**Books catalog page:**

**Catalog.html:**

<html>

<body><br /><br /><br />

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

<div align="center"><pre>

BOOK TITLE :<input type="text" name="title" /><br />

</pre><br /><br />

</div>

<br /><br />

<div align="center">

<input type="submit" value="ok"

name="button1"/>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;

<input type="reset" value="clear" name="button2"/>

</div>

</form>

</body>

</html>

**Shopping cart, Payment by credit card, Order**

**Conformation page:**

**Order.html:**

<html>

<body><br /><br />

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

<div align="center"><pre>

ID

:<input type="text" name="id" /><br />

PASSWORD

:<input type="password" name="pwd" /><br/> TITLE

:<input type="text" name="title" /><br /> NO. OF BOOKS

:<input type="text" name="no" /><br />

DATE

:<input type="text" name="date" /><br />

CREDIT CARD NUMBER :<input type="password" name="cno" /><br /></pre><br

/><br />

</div>

<br /><br />

<div align="center">

<input type="submit" value="ok" name="button1"/>

&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="reset" value="clear"

name="button2"/>

</div>

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

**Login servlet :**

**Login.java:**

import java.sql.\*;

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class login extends HttpServlet

{

public void service(HttpServletRequest req,HttpServletResponse resp)

throws ServletException,IOException

{

PrintWriter pw=resp.getWriter();

pw.println("<html><body>");

String id=req.getParameter("id");

String pwd=req.getParameter("pwd");

try

{

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

Connection

con=DriverManager.getConnection("jdbc:odbc:orcl","scott","tiger

");

Statement stmt=con.createStatement();

String sqlstmt="select id,pwd from login";

ResultSet rs=stmt.executeQuery(sqlstmt);

int flag=0;

while(rs.next())

{

if(id.equals(rs.getString(1))&&pwd.equals(rs.getString(2)))

{

flag=1;

}

}

if(flag==0)

{

pw.println("<br><br>SORRY INVALID ID TRY AGAIN

ID<br><br>");

pw.println("<a href=\"login.html\">press LOGIN to

RETRY</a>");

}

else

{

pw.println("<br><br>VALID LOGIN ID<br><br>"); 58

pw.println("<h3><ul>");

pw.println("<li><a

href=\"profile.html\"><fontcolor=\"black\">USER

PROFILE</font>

</a></li><br><br>");

pw.println("<li><a

href=\"catalog.html\"><fontcolor=\"black\">BOOKS

CATALOG</font></a></li><br><br>");

pw.println("<li><a

href=\"order.html\"><fontcolor=\"black\">ORDER

CONFIRMATION</font>

</a></li></ul><br><br>");

}

pw.println("</body></html>");

}

catch(Exception e)

{

resp.sendError(500,e.toString());

}

}

}

**Registration servlet:**

**Reg.java :**

import java.sql.\*;

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class reg extends HttpServlet

{

public void service(HttpServletRequest req,HttpServletResponse resp)

throws ServletException,IOException

{

PrintWriter pw=resp.getWriter();

resp.setContentType("text/html");

pw.println("<html><body>");

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

String addr=req.getParameter("addr");

String phno=req.getParameter("phno");

String id1=req.getParameter("id");

String pwd1=req.getParameter("pwd");

int no=Integer.parseInt(phno);

try

{

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

Connection

con=DriverManager.getConnection("jdbc:odbc:orcl","scott","tiger

");

Statement stmt=con.createStatement();

String sqlstmt="select id,pwd from login";

ResultSet rs=stmt.executeQuery(sqlstmt);

int flag=0;

while(rs.next())

{

if(id1.equals(rs.getString(1))&&pwd1.equals(rs.getString(2)))

{

flag=1;

}

}

if(flag==1)

{

pw.println("<br><br>SORRY INVALID ID ALREADY

EXITS TRY AGAIN WITH NEW ID<br><br>");

pw.println("<a href=\"reg.html\">press REGISTER to

RETRY</a>");

}

else

{

Statement stmt1=con.createStatement();

stmt1.executeUpdate("insert into login

values('"+name+"','"+addr+"',"+no+",'"+id1+"','"+pwd1+"')

;");

pw.println("<br><br>YOUR DETAILS ARE

ENTERED<br><br>");

pw.println("<a href=\"login.html\">press LOGIN to

login</a>");

}

pw.println("</body></html>");

}

catch(Exception e)

{

resp.sendError(500,e.toString());

}

}

}

**Profile servlet:**

**Profile.java:**

import java.sql.\*;

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class profile extends HttpServlet

{

public void service(HttpServletRequest req,HttpServletResponse resp)

throws ServletException,IOException

{

PrintWriter pw=resp.getWriter();

pw.println("<html><body>");

String id=req.getParameter("id");

try

{

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

Connection

con=DriverManager.getConnection("jdbc:odbc:orcl","scott","tiger

");

Statement stmt=con.createStatement();

String sqlstmt="select \* from login where id="+id+""; ResultSet rs=stmt.executeQuery(sqlstmt);

int flag=0;

pw.println("<br><br><br>");

while(rs.next())

{

pw.println("<div align=\"center\">");

pw.println("NAME :"+rs.getString(1)+"<br>");

pw.println("ADDRESS

:"+rs.getString(2)+"<br>");

pw.println("PHONE NO

:"+rs.getString(3)+"<br>");

pw.println("</div>");

flag=1;

}

if(flag==0)

{

pw.println("<br><br>SORRY INVALID ID TRY AGAIN

ID<br><br>");

pw.println("<a href=\"profile.html\">press HERE to

RETRY</a>");

}

pw.println("</body></html>");

}

catch(Exception e)

{

resp.sendError(500,e.toString());

}

}

}

**Catalog servlet:**

**Catalog.java:**

import java.sql.\*;

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class catalog extends HttpServlet

{

public void service(HttpServletRequest req,HttpServletResponse resp)

throws ServletException,IOException

{

PrintWriter pw=resp.getWriter();

pw.println("<html><body>");

String title=req.getParameter("title");

try

{

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

Connection

con=DriverManager.getConnection("jdbc:odbc:orcl","scott","tiger

");

Statement stmt=con.createStatement();

String sqlstmt="select \* from book where title=\'"+title+"\'"; ResultSet rs=stmt.executeQuery(sqlstmt);

int flag=0;

while(rs.next())

{

pw.println("<div align=\"center\">");

pw.println("TITLE:"+rs.getString(1)+"<br>");

pw.println("AUTHOR :"+rs.getString(2)+"<br>"); pw.println("VERSION :"+rs.getString(3)+"<br>");

pw.println("PUBLISHER :"+rs.getString(4)+"<br>");

pw.println("COST:"+rs.getString(5)+"<br>");

pw.println("</div>");

flag=1;

}

if(flag==0)

{

pw.println("<br><br>SORRY INVALID TITLE TRY

AGAIN <br><br>");

pw.println("<a href=\"catalog.html\">press HERE to

RETRY</a>");

}

pw.println("</body></html>");

}

catch(Exception e)

{

resp.sendError(500,e.toString());

}

}

}

**Order servlet:**

**Order.java:**

import java.sql.\*;

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class order extends HttpServlet

{

public void service(HttpServletRequest req,HttpServletResponse resp)

throws ServletException,IOException

{

int count;

PrintWriter pw=resp.getWriter();

pw.println("<html><body>");

String id=req.getParameter("id");

String pwd=req.getParameter("pwd");

String title=req.getParameter("title");

String count1=req.getParameter("no");

String date=req.getParameter("date");

String cno=req.getParameter("cno");

try

{

count=Integer.parseInt(count1);

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

Connection

con=DriverManager.getConnection("jdbc:odbc:orcl","scott","tiger

");

Statement stmt=con.createStatement();

String sqlstmt="select id,pwd from login";

ResultSet rs=stmt.executeQuery(sqlstmt);

int flag=0,amount,x;

while(rs.next())

{

if(id.equals(rs.getString(1))&&pwd.equals(rs.getString(2)))

{

flag=1;

}

}

if(flag==0)

{

pw.println("<br><br>SORRY INVALID ID TRY AGAIN

ID<br><br>");

pw.println("<a href= \" order.html \" >press HERE to RETRY</a>");

}

else

{

Statement stmt2=con.createStatement();

String s="select cost from book where title=\'"+title+"\'"; ResultSet rs1=stmt2.executeQuery(s);

int flag1=0;

while(rs1.next())

{

flag1=1;

x=Integer.parseInt(rs1.getString(1));

amount=count\*x;

pw.println("<br><br>AMOUNT

:"+amount+"<br><br><br><br>");

Statement stmt1=con.createStatement();

stmt1.executeUpdate("insert into details

values('"+id+"','"+title+"',"+amount+",'"+cno+"');"); pw.println("<br>YOUR ORDER has taken<br>");

}

if(flag1==0)

{

pw.println("<br><br><br>SORRY INVALID ID

TRY AGAIN ID<br><br>");

pw.println("<a href=\"order.html\">press HERE to

RETRY</a>");

}

}

pw.println("</body></html>");

con.close();

}

catch(Exception e)

{

resp.sendError(500,e.toString());

}

}

}

**Web.xml:**

<?xml version="1.0"?>

<web-app >

<servlet>

<servlet-name>login</servlet-name>

<servlet-class>login</servlet-class>

</servlet>

<servlet>

<servlet-name>reg</servlet-name>

<servlet-class>reg</servlet-class>

</servlet>

<servlet>

<servlet-name>profile</servlet-name>

<servlet-class>profile</servlet-class>

</servlet>

<servlet>

<servlet-name>order</servlet-name>

<servlet-class>order</servlet-class>

</servlet>

<servlet>

<servlet-name>catalog</servlet-name>

<servlet-class>catalog</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>login</servlet-name>

<url-pattern>/login</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>reg</servlet-name>

<url-pattern>/reg</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>profile</servlet-name>

<url-pattern>/profile</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>order</servlet-name>

<url-pattern>/order</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>catalog</servlet-name>

<url-pattern>/catalog</url-pattern>

</servlet-mapping>

<welcome-file-list>

<welcome-file>main.html</welcome-file></welcome-file-list>

</web-app>

**Output:**

**AIM:**

Redo the previous task using JSP by converting the static web pages of assignments 2 into dynamic web pages. Create a database with user information and books information and books information. The books catalogue should be dynamically loaded from the database. Follow the MVC architecture while doing the website.

**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) at I.E give url as <http://localhost:8081/tr1/main.html>

**Home page:**

**Main.html:**

<html>

<body>

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

<h1 align="center"><u>ONLINE BOOK STORAGE</u></h1><br><br><br>

<h2 align="center"><PRE>

<b> Welcome to online book storage.

Press LOGIN if you are having id

Otherwise press REGISTRATION

</b></PRE></h2>

<br><br><pre>

<div align="center"><a href="login.html">LOGIN</a>

<a href="reg.html">REGISTRATION</a></div></pre>

</body></html>

**Login page:**

**Login.html:**

<html>

<body><br /><br /><br />

<form name="myform" method="post" action="login.jsp">

<div align="center"><pre>

LOGIN ID :<input type="text" name="id" /><br /> PASSWORD :<input type="password" name="pwd"

/></pre><br /><br />

</div>

<br /><br />

<div align="center">

<input type="submit" value="ok" onclick="validate()" />

&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="reset" value="clear" />

</div>

</form>

</body>

</html>

**Registration page:**

**Reg.html:**

<html>

<body><br /><br />

<form name="myform" method="post" action="reg.jsp">

<table align="center" >

<tr>

<td>NAME</td>

<td>:<input type="text" name="name" /></td>

</tr>

<tr>

<td>ADDRESS</td>

<td>:<input type="text" name="addr" /></td>

</tr>

<tr>

<td>CONTACT NUMBER</td>

<td>:<input type="text" name="phno" /></td>

</tr>

<tr>

<td>LOGINID</td>

<td>:<input type="text" name="id" /></td>

</tr>

<tr>

<td>PASSWORD</td>

<td>:<input type="password" name="pwd" /></td>

</tr>

</table>

<br /><br />

<div align="center">

<input type="submit" value="ok" onclick="validate()" />

&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="reset" value="clear" />

</div>

</form>

</body>

</html>

**User profile page:**

**Profile.html:**

<html>

<body><br /><br /><br />

<form name="myform" method="post" action="profile.jsp">

<div align="center"><pre>

LOGIN ID :<input type="text" name="id" /><br />

</pre><br /><br />

</div>

<br /><br />

<div align="center">

<input type="submit" value="ok" onclick="validate()" />

&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="reset" value="clear" />

</div>

</form>

</body>

</html>

**Books catalog page:**

**Catalog.html:**

<html>

<body><br /><br /><br />

<form method="post" action="catalog.jsp">

<div align="center"><pre>

BOOK TITLE :<input type="text" name="title" /><br />

</pre><br /><br />

</div>

<br /><br />

<div align="center">

<input type="submit" value="ok"

name="button1"/>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;

<input type="reset" value="clear" name="button2"/>

</div>

</form>

</body> </html>

**Shopping cart, Payment by credit card, Order**

**Conformation page:**

**Order.html:**

<html>

<body><br /><br />

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

<div align="center"><pre>

ID

:<input type="text" name="id" /><br />

PASSWORD

:<input type="password" name="pwd" /><br/> TITLE

:<input type="text" name="title" /><br /> NO. OF BOOKS :<input type="text" name="no" /><br />

DATE

:<input type="text" name="date" /><br />

CREDIT CARD NUMBER :<input type="password" name="cno" /><br

/></pre><br /><br />

</div>

<br /><br />

<div align="center">

<input type="submit" value="ok" name="button1"/>

&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="reset" value="clear"

name="button2"/>

</div>

</form>

</body>

</html>

**Login JSP:**

**Login.jsp:**

<%@page import="java.sql.\*"%>

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

<% out.println("<html><body>");

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

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

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

Connection

con=DriverManager.getConnection("jdbc:odbc:orcl","scott","tiger"); Statement

stmt=con.createStatement();

String sqlstmt="select id,pwd from login";

ResultSet rs=stmt.executeQuery(sqlstmt);

int flag=0;

while(rs.next())

{

if(id.equals(rs.getString(1))&&pwd.equals(rs.getString(2)))

{

flag=1;

}

}

if(flag==0)

{

out.println("<br><br>SORRY INVALID ID TRY AGAIN

ID<br><br>");

out.println("<a href=\"login.html\">press LOGIN to

RETRY</a>");

}

else

{

out.println("<br><br>VALID LOGIN ID<br><br>"); out.println("<h3><ul>");

out.println("<li><a

href=\"profile.html\"><fontcolor=\"black\">USER

PROFILE</font>

</a></li><br><br>");

out.println("<li><a

href=\"catalog.html\"><fontcolor=\"black\">BOOKS

CATALOG</font></a></li><br><br>");

out.println("<li><a

href=\"order.html\"><fontcolor=\"black\">ORDER

CONFIRMATION</font>

</a></li></ul><br><br>");

}

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

con.close();

%>

**Registration JSP:**

**Reg.jsp :**

<%@page import="java.sql.\*"%>

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

<% response.setContentType("text/html");

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

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

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

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

String id1=request.getParameter("id");

String pwd1=request.getParameter("pwd");

int no=Integer.parseInt(phno);

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

Connection

con=DriverManager.getConnection("jdbc:odbc:orcl","scott","tiger"); Statement

stmt=con.createStatement();

String sqlstmt="select id,pwd from login";

ResultSet rs=stmt.executeQuery(sqlstmt);

int flag=0;

while(rs.next())

{ if(id1.equals(rs.getString(1))&&pwd1.equals(rs.getString(2)))

{

flag=1;

}

}

if(flag==1)

{ out.println("<br><br>SORRY INVALID ID ALREADY

EXITS TRY AGAIN WITH NEW ID<br><br>");

out.println("<a href=\"reg.html\">press REGISTER to

RETRY</a>");

}

else

{ Statement stmt1=con.createStatement();

stmt1.executeUpdate("insert into login

values('"+name+"','"+addr+"',"+no+",'"+id1+"','"+pwd1+"');"); out.println("<br><br>YOUR DETAILS

ARE

ENTERED<br><br>");

out.println("<a href=\"login.html\">press LOGIN to

login</a>");

}

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

con.close();

%>

**Profile JSP:**

**Profile.jsp:**

<%@page import="java.sql.\*"%>

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

<% out.println("<html><body>");

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

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

Connection

con=DriverManager.getConnection("jdbc:odbc:orcl","scott","tiger"); Statement

stmt=con.createStatement();

String sqlstmt="select \* from login where id="+id+""; ResultSet rs=stmt.executeQuery(sqlstmt);

int flag=0;

out.println("<br><br><br>");

while(rs.next())

{

out.println("<div align=\"center\">");

out.println("NAME :"+rs.getString(1)+"<br>");

out.println("ADDRESS

:"+rs.getString(2)+"<br>");

out.println("PHONE NO

:"+rs.getString(3)+"<br>");

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

flag=1;

}

if(flag==0)

{

out.println("<br><br>SORRY INVALID ID TRY AGAIN

ID<br><br>");

out.println("<a href=\"profile.html\">press HERE to

RETRY</a>");

}

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

con.close(); %>

**Catalog JSP:**

**Catalog.jsp:**

<%@page import="java.sql.\*"%>

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

<% out.println("<html><body>");

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

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

Connection

con=DriverManager.getConnection("jdbc:odbc:orcl","scott","tiger"); Statement

stmt=con.createStatement();

String sqlstmt="select \* from book where title=\'"+title+"\'"; ResultSet rs=stmt.executeQuery(sqlstmt);

int flag=0;

while(rs.next())

{

out.println("<div align=\"center\">");

out.println("TITLE

:"+rs.getString(1)+"<br>");

out.println("AUTHOR :"+rs.getString(2)+"<br>"); out.println("VERSION :"+rs.getString(3)+"<br>");

out.println("PUBLISHER :"+rs.getString(4)+"<br>"); out.println("COST

:"+rs.getString(5)+"<br>");

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

flag=1;

}

if(flag==0)

{

out.println("<br><br>SORRY INVALID TITLE TRY

AGAIN <br><br>");

out.println("<a href=\"catalog.html\">press HERE to

RETRY</a>");

}

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

con.close();

%>

**Order servlet:**

**Order.java:**

<%@page import="java.sql.\*"%>

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

<% int count;

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

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

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

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

String count1=request.getParameter("no");

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

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

count=Integer.parseInt(count1);

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

Connection

con=DriverManager.getConnection("jdbc:odbc:orcl","scott","tiger"); Statement

stmt=con.createStatement();

String sqlstmt="select id,pwd from login";

ResultSet rs=stmt.executeQuery(sqlstmt);

int flag=0,amount,x;

while(rs.next())

{

if(id.equals(rs.getString(1))&&pwd.equals(rs.getString(2)))

{

flag=1;

}

}

if(flag==0)

{

out.println("<br><br>SORRY INVALID ID TRY AGAIN

ID<br><br>");

out.println("<a href= \"order.html \" >press HERE to RETRY</a>");

}

else

{

Statement stmt2=con.createStatement();

String s="select cost from book where title=\'"+title+"\'"; ResultSet rs1=stmt2.executeQuery(s);

int flag1=0;

while(rs1.next())

{

flag1=1;

x=Integer.parseInt(rs1.getString(1));

amount=count\*x;

out.println("<br><br>AMOUNT

:"+amount+"<br><br><br><br>");

Statement stmt1=con.createStatement();

stmt1.executeUpdate("insert into details

values('"+id+"','"+title+"',"+amount+",'"+cno+"');"); out.println("<br>YOUR ORDER has taken<br>");

}

if(flag1==0)

{

out.println("<br><br><br>SORRY INVALID ID

TRY AGAIN ID<br><br>");

out.println("<a href=\"order.html\">press HERE to

RETRY</a>");

}

}

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

con.close();

%>

**Output:**

**ii) Java Programming.**

**AIM:**

Write a Java program that works as a simple calculator. Use a grid layout to arrange buttons for the digits and for the +, -,\*, % operations. Add a text field to display the result.

**Program:**

import java.awt.FlowLayout;

import java.awt.GridLayout;

import java.awt.Panel;

import javax.swing.\*;

import java.awt.event.\*;

public class calc{

static JFrame frame=new JFrame("Calculator");

static Panel pan=new Panel();

static JButton[] but=new JButton[15];

static JTextField txt=new JTextField(15);

static String str1="";

static String str2="";

static char op;

public static void main(String[] args) {

for(int i=0;i<=9;i++)

but[i]=new JButton(i+"");

but[10]=new JButton("+");

but[11]=new JButton("-");

but[12]=new JButton("\*");

but[13]=new JButton("/");

but[14]=new JButton("=");

Handler handler=new Handler();

pan.setLayout(new GridLayout(5,3));

for(int i=0;i<15;i++){

but[i].addActionListener(handler);

pan.add(but[i]);

}

frame.setLayout(new FlowLayout());

frame.add(txt);

frame.add(pan);

frame.setVisible(true);

frame.setSize(200, 250);

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

}

public static class Handler implements ActionListener{

public void actionPerformed(ActionEvent ae) {

for(int i=0;i<=9;i++)

if(ae.getSource()==but[i])

txt.setText(txt.getText()+i);

if(ae.getSource()==but[10])

{

str1=txt.getText();

op='+';

txt.setText("");

}

if(ae.getSource()==but[11])

{

str1=txt.getText();

op='-';

txt.setText("");

}

if(ae.getSource()==but[12])

{

str1=txt.getText();

op='\*';

txt.setText("");

}

if(ae.getSource()==but[13])

{

str1=txt.getText();

op='/';

txt.setText("");

}

if(ae.getSource()==but[14])

{

str2=txt.getText();

if(op=='+')

txt.setText(""+(Integer.parseInt(str1)+Integer.parseInt(str2)));

if(op=='-')

txt.setText(""+(Integer.parseInt(str1)-Integer.parseInt(str2)));

if(op=='\*')

txt.setText(""+(Integer.parseInt(str1)\*Integer.parseInt(str2)));

if(op=='/')

txt.setText(""+(Integer.parseInt(str1)/Integer.parseInt(str2)));

}

}

}

}

**Output:**

**AIM:**

a) Develop an applet that displays a simple message.

b) Develop an applet that receives an integer in one text field, and computes its factorial Value and returns it in another text field, when the button named “Compute” is clicked.

**Program:**

import java.awt.\*;

import java.applet.Applet;

public class SimpleApplet extends Applet

{

public void paint(Graphics g)

{

g.drawString("welcome to Applets",50,50);

}

}

/\*<applet code="SimpleApplet.class" height=200 width=400>

</applet>\*/

**Output:**

E:\java programs>javac SimpleApplet.java

E:\java programs>appletviewer SimpleApplet.java

**Program:**

import java.awt.\*;

import java.awt.event.\*;

import java.applet.Applet;

public class Fact extends Applet implements ActionListener

{

Label l1,l2;

TextField t1,t2;

Button b1;

public void init()

{

l1=new Label("enter the value");

add(l1);

t1=new TextField(10);

add(t1);

b1=new Button("Factorial");

add(b1);

b1.addActionListener(this);

l2=new Label("Factorial of given no is");

add(l2);

t2=new TextField(10);

add(t2);

}

public void actionPerformed(ActionEvent e)

{

if(e.getSource()==b1)

{

int fact=fact(Integer.parseInt(t1.getText()));

t2.setText(String.valueOf(fact));

}

}

int fact(int f)

{

int s=0;

if(f==0)

return 1;

else

return f\*fact(f-1);

}

}

/\*<applet code="Fact.class" height=300 width=300>

</applet>\*/

**Output:**

E:\java programs>javac Fact.java

E:\java programs>appletviewer Fact.java

**AIM:**

Write a program that creates a user interface to perform integer divisions. The user enters two numbers in the textfields, Num1 and Num2. The division of Num1 and Num2 is displayed in the Result field when the Divide button is clicked. If Num1 or Num2 were not an integer, the program would throw a NumberFormatException. If Num2 were Zero, the program would throw an ArithmeticException Display the exception in a message dialog box.

**Program:**

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.\*;

public class div extends JFrame implements ActionListener

{

Container c;

JButton btn;

JLabel lb11,lb12,lb13;

JTextField tf1,tf2,tf3;

JPanel p;

div()

{

super("Exception handler");

c=getContentPane();

c.setBackground(Color.red);

btn=new JButton("Divide");

btn.addActionListener(this);

tf1=new JTextField(30);

tf2=new JTextField(30);

tf3=new JTextField(30);

lb11=new JLabel("NUM1");

lb12=new JLabel("NUM2");

lb13=new JLabel("RESULT");

p=new JPanel();

p.setLayout(new GridLayout(3,2));

p.add(lb11); p.add(tf1);

p.add(lb12); p.add(tf2);

p.add(lb13); p.add(tf3);

c.add(new JLabel("DIVISION"),"North");

c.add(p,"Center");

c.add(btn,"South");

addWindowListener(new WindowAdapter()

{

public void windowClosing(WindowEvent e)

{

dispose();

}

});

}

public void actionPerformed(ActionEvent e)

{

if(e.getSource()==btn)

{

try

{

int a=Integer.parseInt(tf1.getText());

int b=Integer.parseInt(tf2.getText());

Float c=Float.valueOf(a/b);

tf3.setText(String.valueOf(c));

}

catch(NumberFormatException ex)

{

tf3.setText("........");

JOptionPane.showMessageDialog(this,"other err"+ex.getMessage());

}

catch(ArithmeticException ex)

{

tf3.setText("........");

JOptionPane.showMessageDialog(this,ex.getMessage());

}

}

}

public static void main(String[] args)

{

div b=new div();

b.setSize(300,300);

b.setVisible(true);

}

}

**AIM:**

Write a Java program that implements a simple client/server application. The client sends data to a server. Theserver receives the data, uses it to produce a result, and then sends the result back to the client. The client displays the result on the console. For ex: The data sent from the client is the radius of a circle, and the result produced by the server is the area of the circle. (Use java.net).

**Client:**

import java.io.\*;

import java.net.\*;

class Client

{

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

{

Socket s=new Socket("localhost",8080);

BufferedReader br;

PrintStream ps;

String str;

System.out.println("enter the radius to send the server");

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

ps=new PrintStream(s.getOutputStream());

ps.println(br.readLine());

br=new BufferedReader(new InputStreamReader(s.getInputStream()));

str=br.readLine();

System.out.println("Area of circle:"+str);

ps.close();

br.close();

}

}

**Server:**

import java.io.\*;

import java.net.\*;

class Server

{

public static void main(String[] args)

{

try{

ServerSocket ss=new ServerSocket(8080);

System.out.println("wait for client request");

Socket s=ss.accept();

BufferedReader br;

PrintStream ps;

String str;

br=new BufferedReader(new InputStreamReader(s.getInputStream()));

str=br.readLine();

System.out.println("recieved radius");

double r=Double.parseDouble(str);

double area=3.14\*r\*r;

ps=new PrintStream(s.getOutputStream());

ps.println(String.valueOf(area));

ps.close();

br.close();

s.close();

ss.close();

}

catch(Exception e)

{

System.out.println("exception occur at:"+e.toString());

}

}

}

**Output:**

Client side:

C:\Documents and Settings\YSCE\Desktop\java>javac client.java

C:\Documents and Settings\YSCE\Desktop\java>java Client

enter the radius to send the server

10

Area of circle:314.0

Server side:

C:\Documents and Settings\YSCE\Desktop\java>javac server.java

C:\Documents and Settings\YSCE\Desktop\java>java Server

wait for client request

recieved radius

**AIM:**

a) Write a java program that simulates a traffic light. The program lets the user select one of three lights: red, yellow,or green. When a radio button is selected, the light is turned on, and only one light can be on at a time No light is on when the program starts.

b) Write a Java program that allows the user to draw lines, rectangles and ovals.

1. **Program:**

import java.applet.Applet;

import java.awt.Checkbox;

import java.awt.CheckboxGroup;

import java.awt.Color;

import java.awt.event.MouseAdapter;

import java.awt.event.MouseEvent;

import java.awt.event.MouseListener;

public class TrafficSignal extends Applet {

CheckboxGroup c;

Checkbox c1,c2,c3;

public void init()

{

c=new CheckboxGroup();

c1=new Checkbox("RED",c,false);

c2=new Checkbox("YELLOW",c,false);

c3=new Checkbox("GREEN",c,false);

add(c1);

add(c2);

add(c3);

c1.addMouseListener((MouseListener) new Check1());

c2.addMouseListener((MouseListener) new Check2());

c3.addMouseListener((MouseListener) new Check3());

}

class Check1 extends MouseAdapter

{

public void mouseClicked(MouseEvent e)

{

setBackground(Color.red);

}

}

class Check2 extends MouseAdapter

{

public void mouseClicked(MouseEvent e)

{

setBackground(Color.yellow);

}

}

class Check3 extends MouseAdapter

{

public void mouseClicked(MouseEvent e)

{

setBackground(Color.green);

}

}

}

1. **Program:**

import java.awt.\*;

import java.applet.Applet;

public class DrawShapes extends Applet

{

public void paint(Graphics g)

{

g.drawLine(40,30,200,30);

g.drawRect(40,60,70,40);

g.fillRect(140,60,70,40);

g.drawOval(240,120,70,40);

g.fillOval(40,180,70,40);

}

}

/\*<applet code="DrawShapes.class" height=500 width=500>

</applet>\*/

**Output:**

E:\java programs>javac DrawShapes.java

E:\java programs>appletviewer DrawShapes.java

**AIM:**

a) Write a java program to create an abstract class named Shape that contains an empty method named numberOfSides ( ).Provide three classes named Trapezoid, Triangle and Hexagon such that each one of the classes extends the class Shape. Each one of the classes contains only the method numberOfSides ( ) that shows the number of sides in the given geometrical figures.

b) Suppose that a table named Table.txt is stored in a text file. The first line in the file is the header, and the remaining lines correspond to rows in the table.The elements are separated by commas. Write a java program to display the table using Jtable component.

1. **Program:**

abstract class Shapes {

abstract void numberOfSlides(); }

class Trapezoid extends Shapes {

void numberOfSlides() {

System.out.println("no of slides for Trapezoid is 5"); } }

class Triangle extends Shapes {

void numberOfSlides() {

System.out.println("no of slides for triangle is 3"); } }

class Hexagon extends Shapes {

void numberOfSlides() {

System.out.println("no of slides for Hexagon in 8"); } }

class Abstractclass{

public static void main(String[] args) {

Shapes s;

s=new Trapezoid();

s.numberOfSlides();

s=new Triangle();

s.numberOfSlides();

s=new Hexagon();

s.numberOfSlides();

}

}

**Output:**

E:\java programs>javac Abstractclass.java

E:\java programs>java Abstractclass

no of slides for Trapezoid is 5

no of slides for triangle is 3

no of slides for Hexagon in 8

1. **Program:**

import java.awt.\*;

import javax.swing.\*;

public class table1 extends JApplet

{

public void init()

{

Container con=getContentPane();

BorderLayout b=new BorderLayout();

con.setLayout(b);

final String[] colHeads={"name","rollnumber","Dept","percentage"};

final String[][] data={

{"java","0501","cse","70.05%"},

{"ajay","0341","mech","90.78%"},

{"vijaya","0401","ece","70.05%"},

{"nani","0402","ece","80.12%"},

{"lakshmi","0201","ee","80.12%"},

{"malathi","1214","cseit","50.05%"}

};

JTable table1=new JTable(data,colHeads);

int v=ScrollPaneConstants.VERTICAL\_SCROLLBAR\_AS\_NEEDED;

int h=ScrollPaneConstants.HORIZONTAL\_SCROLLBAR\_AS\_NEEDED;

JScrollPane scroll=new JScrollPane(table1,v,h);

con.add(scroll);

}

}

/\*<applet code="Table1.class" height=400 width=400>

</applet>\*/

**Output:**

C:\Documents and Settings\YSCE\Desktop\java>javac table1.java

C:\Documents and Settings\YSCE\Desktop\java>appletviewer Table1.java

**AIM:**

Java program for handling key events.

**Program:**

import java.awt.\*;

import java.awt.event.\*;

public class keylistener extends Frame implements KeyListener{

TextField t1;

Label l1;

public keylistener(String s ) {

super(s);

Panel p =new Panel();

l1 = new Label ("Key Listener!" ) ;

p.add(l1);

add(p);

addKeyListener ( this ) ;

setSize ( 200,100 );

setVisible(true);

addWindowListener(new WindowAdapter(){

public void windowClosing(WindowEvent e){

System.exit(0);

}

});

}

public void keyTyped ( KeyEvent e ){

l1.setText("Key Typed");

}

public void keyPressed ( KeyEvent e){

l1.setText ( "Key Pressed") ;

}

public void keyReleased ( KeyEvent e ){

l1.setText( "Key Released" ) ;

}

public static void main (String[]args ){

new keylistener( "Key Listener Tester" ) ;

}

}

**AIM:**

Write a java program for handling mouse events (use adapter class).

**Program:**

import java.awt.\*;

import java.applet.\*;

import java.awt.event.\*;

public class mousetest extends Applet implements MouseListener,MouseMotionListener

{

public void init()

{

addMouseListener(this);

addMouseMotionListener(this);

}

public void mouseClicked(MouseEvent e)

{

showStatus("mouse clicked at"+e.getX()+","+e.getY());

}

public void mouseEntered(MouseEvent e)

{

showStatus("mouse entered at"+e.getX()+","+e.getY());

}

public void mouseExited(MouseEvent e)

{

showStatus("mouse exited at"+e.getX()+","+e.getY());

}

public void mousePressed(MouseEvent e)

{

showStatus("mouse pressed at"+e.getX()+","+e.getY());

}

public void mouseReleased(MouseEvent e)

{

showStatus("mouse released at"+e.getX()+","+e.getY());

}

public void mouseDragged(MouseEvent e)

{

showStatus("mouse dragged at"+e.getX()+","+e.getY());

}

public void mouseMoved(MouseEvent e)

{

showStatus("mouse moved at"+e.getX()+","+e.getY());

}

public void paint(Graphics g)

{

Font f=new Font("Helvetica",Font.BOLD,20);

g.setFont(f);

g.drawString("Always keep smiling !!",50,50);

g.drawOval(60,60,200,200);

g.fillOval(90,120,50,20);

g.fillOval(190,120,50,20);

g.drawLine(165,125,165,175);

g.drawArc(110,130,95,95,0,-180);

g.drawLine(165,175,150,160);

}

}

**Assignment programs:**

Write an HTML page including any required java script that breaks a number from one text field in a range of 0 to 999 and shows it in another text field in words.if the number is out of range it should show “out of range” and if it is not a number it should show “not a number”, in the result box.

**Program:**

<html>

<head>

<title>Example1</title>

<script>

function checkfun()

{

var num = document.f1.num1.value;

var a= new RegExp("[0-9]");

if(!a.test(num))

alert("enter numbers only");

if(num.length>3)

alert("out of range");

var SingleDigits = new Array("Zero", "One", "Two", "Three", "Four", "Five", "Six", "Seven", "Eight", "Nine", "Ten", "Eleven", "Twelve", "Thirteen", "Fourteen", "Fifteen", "Sixteen", "Seventeen", "Eighteen", "Nineteen");

var DoubleDigits = new Array("Twenty", "Thirty", "Forty", "Fifty", "Sixty", "Seventy", "Eighty", "Ninety");

var Words = "";

var St;

for (var i = 9; i >= 1; i--) {

if (num >= i \* 100) {

Words += SingleDigits[i];

St = 1;

Words += " hundred";

if (num != i \* 100) Words += " and ";

{ num -= i\*100; }

i=0; }

}

//alert(Words);

for (var i = 9; i >= 2; i--) {

if (num >= i \* 10)

{

Words += (St?DoubleDigits[i-2].toLowerCase():DoubleDigits[i-2]);

St = 1;

if (num != i \* 10) Words += "-";

{

num -= i\*10;

}

i=0;

}

}

//alert(Words);

for (var i = 1; i < 20; i++)

{

if (num == i)

{

Words += (St?SingleDigits[i].toLowerCase():SingleDigits[i]);

}

}

//alert(Words);

f1.res.value = Words;

//document.f1.res.value = Words;

}

</script>

</head>

<body>

<form name="f1">

<font background-color=pink color=green>

enter a num<input type=text name=num1>

<input type="button" value=validate onclick="checkfun()">

result<textarea name=res></textarea>

</font>

</form>

</body>

</html>

**AIM:**

Write a java swing application that takes a text file name as input and count the characters, words, and lines in the file words are separated with white space characters and lines are separated with new line character.

**Program:**

import java.awt.\*;

import java.io.\*;

import java.util.\*;

import javax.swing.\*;

import java.awt.event.\*;

public class WordCount extends JApplet implements ActionListener

{

JTextField t1;

Label l1;

String msg=" ";

public void init()

{

Container contentpane=getContentPane();

contentpane.setLayout(new FlowLayout());

l1=new Label("Enter the filename");

t1=new JTextField(10);

contentpane.add(l1);

contentpane.add(t1);

t1.addActionListener(this);

}

public void actionPerformed(ActionEvent ae)

{

msg=" ";

String fn=t1.getText();

try{

msg=count(fn);

repaint();

}

catch(Exception e)

{

msg="Error: Invalid file name";

repaint();

}

}

String count(String s) throws IOException

{

int char\_count=0;

int word\_count=0;

int line\_count=0;

StringTokenizer st;

BufferedReader buf=new BufferedReader(new FileReader(s));

while((s=buf.readLine())!=null)

{

line\_count++;

st=new StringTokenizer(s," ,;:.");

while(st.hasMoreTokens())

{

word\_count++;

s=st.nextToken();

char\_count+=s.length();

}

}

buf.close();

return "No of lines :"+line\_count+"\n No of words:"+word\_count+"\n No of Characters:"+char\_count;

}

public void paint(Graphics g)

{

g.drawString(msg,50,50);

}

}

/\*<applet code="WordCount.class" height=200 width=100>

</applet> \*/

**AIM:**

Write an HTML page that contains a list of 5 countries, when the user selects a country, Its capital should be printed next to the list. Add CSS to customize the properties of the font of the capital(Color,bold and font size).

**Program:**

<html>

<head>

<title>Countries & Capitals </title>

<body>

<h3> Countries and Capitals </h3>

<form name="f1">

Country<select name="country" onChange=call()>

<option> </option>

<option value="India">India</option>

<option value="France">France</option>

<option value="Nepal">Nepal</option>

<option value="Japan">Japan</option>

<option value="Germany">Germany</option>

</select> Capital <input type="text" name="capital" style="font-size:large; font-weight:bold;color:red">

</form>

<script>

var result=" ";

function call(){

id=f1.country.selectedIndex;

con=f1.country.options[id].value;

if(con=="India")

result="New Delhi";

else if(con=="France")

result="Paries";

else if(con=="Nepal")

result="Kathmandu";

else if(con=="Japan")

result="Tokyo";

else if(con=="Germany")

result="Berlin";

f1.capital.value=result; }

</script>

</body> </html>

**AIM:**

Write a calculator program in HTML that performs basic arithmetic operations(+,-,/,\* and %). Use CSS to change the foreground and background color of the values,buttons and result display area separately. Validate the input Strings using JavaScript regular expressions.Handle any special cases like division with zero reasonably. The Screen many look similar to the following:

**Program:**

<html>

<head>

<title>

CALCULATOR</title>

<script>

function cal()

{

var a=parseInt(document.f2.num1.value);

var b=parseInt(document.f2.num2.value);

var op=document.f2.coun.value;

var res1;

switch(op)

{

case '+': res1 = a +b;

break;

case '-': res1 = a-b;

break;

case '\*': res1 = a\*b;

break;

case '/': res1 = a/b;

break;

case '%': res1 = a%b;

break;

}

f2.res.value=res1;

}

</script>

</head>

<body>

<form name="f2">

value1<input type=text name=num1>

operater<select name="coun">

<option >+</option>

<option >-</option>

<option >\*</option>

<option >/</option>

<option >%</option>

</select>

value2<input type=text name=num2>

<input type=button value="=" onclick="cal()">

result<input type=text name=res>

</form>

</body>

</html>