

WEB TECHNOLOGIES

LABORATORY MANUAL

B.TECH
(III YEAR – I SEM)
(2019-2020)



DEPARTMENT OF INFORMATION TECHNOLOGY

**MALLA REDDY COLLEGE OF ENGINEERING &
TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

Recognized under 2(f) and 12 (B) of UGC ACT 1956

(Affiliated to JNTUH, Hyderabad, Approved by AICTE - Accredited by NBA & NAAC – 'A' Grade - ISO 9001:2015 Certified)

Maisammaguda, Dhulapally (Post Via. Hakimpet), Secunderabad – 500100, Telangana State, India

DEPARTMENT OF INFORMATION TECHNOLOGY

VISION

- To improve the quality of technical education that provides efficient software engineers with an attitude to adapt challenging IT needs of local, national and international arena, through teaching and interaction with alumni and industry.

MISSION

- Department intends to meet the contemporary challenges in the field of IT and is playing a vital role in shaping the education of the 21st century by providing unique educational and research opportunities.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO1 – ANALYTICAL SKILLS

To facilitate the graduates with the ability to visualize, gather information, articulate, analyze, solve complex problems, and make decisions. These are essential to address the challenges of complex and computation intensive problems increasing their productivity.

PEO2 – TECHNICAL SKILLS

To facilitate the graduates with the technical skills that prepare them for immediate employment and pursue certification providing a deeper understanding of the technology in advanced areas of computer science and related fields, thus encouraging to pursue higher education and research based on their interest.

PEO3 – SOFT SKILLS

To facilitate the graduates with the soft skills that include fulfilling the mission, setting goals, showing self-confidence by communicating effectively, having a positive attitude, get involved in team-work, being a leader, managing their career and their life.

PEO4 – PROFESSIONAL ETHICS

To facilitate the graduates with the knowledge of professional and ethical responsibilities by paying attention to grooming, being conservative with style, following dress codes, safety codes, and adapting themselves to technological advancements.

PROGRAM SPECIFIC OUTCOMES (PSOs)

After the completion of the course, B. Tech Information Technology, the graduates will have the following Program Specific Outcomes:

1. **Fundamentals and critical knowledge of the Computer System:-** Able to Understand the working principles of the computer System and its components , Apply the knowledge to build, asses, and analyze the software and hardware aspects of it .
2. **The comprehensive and Applicative knowledge of Software Development:** Comprehensive skills of Programming Languages, Software process models, methodologies, and able to plan, develop, test, analyze, and manage the software and hardware intensive systems in heterogeneous platforms individually or working in teams.
3. **Applications of Computing Domain & Research:** Able to use the professional, managerial, interdisciplinary skill set, and domain specific tools in development processes, identify the research gaps, and provide innovative solutions to them.

PROGRAM OUTCOMES (POs)

Engineering Graduates should possess the following:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design / development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi disciplinary environments.
12. **Life- long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



DEPARTMENT OF INFORMATION TECHNOLOGY

GENERAL LABORATORY INSTRUCTIONS

1. Students are advised to come to the laboratory at least 5 minutes before (to the starting time), those who come after 5 minutes will not be allowed into the lab.
2. Plan your task properly much before to the commencement, come prepared to the lab with the synopsis / program / experiment details.
3. Student should enter into the laboratory with:
 - a. Laboratory observation notes with all the details (Problem statement, Aim, Algorithm, Procedure, Program, Expected Output, etc.,) filled in for the lab session.
 - b. Laboratory Record updated up to the last session experiments and other utensils (if any) needed in the lab.
 - c. Proper Dress code and Identity card.
4. Sign in the laboratory login register, write the TIME-IN, and occupy the computer system allotted to you by the faculty.
5. Execute your task in the laboratory, and record the results / output in the lab observation note book, and get certified by the concerned faculty.
6. All the students should be polite and cooperative with the laboratory staff, must maintain the discipline and decency in the laboratory.
7. Computer labs are established with sophisticated and high end branded systems, which should be utilized properly.
8. Students / Faculty must keep their mobile phones in SWITCHED OFF mode during the lab sessions. Misuse of the equipment, misbehaviors with the staff and systems etc., will attract severe punishment.
9. Students must take the permission of the faculty in case of any urgency to go out; if anybody found loitering outside the lab / class without permission during working hours will be treated seriously and punished appropriately.
10. Students should LOG OFF/ SHUT DOWN the computer system before he/she leaves the lab after completing the task (experiment) in all aspects. He/she must ensure the system / seat is kept properly.

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2	Develop and demonstrate the usage of inline, internal and external style sheet using CSS.	10-12
3	Write JavaScript to validate the following fields of the Registration page. 1. First Name (Name should contains alphabets and the length should not be less than 6 characters). 2. Password (Password should not be less than 6 characters length). 3. E-mail id (should not contain any invalid and must follow the standard pattern name@domain.com) 4. Mobile Number (Phone number should contain 10 digits only). Last Name and Address (should not be Empty).	14-19
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5	c) Input: A number n obtained using prompt Output: A multiplication table of numbers from 1 to 10 of n using alert d) Input: A number n obtained using prompt and add another number using confirm Output: Sum of the entire n numbers using alert	25-26
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10	Implement the following web applications using (a) PHP (b) Servlets (c) JSP	57-62
11	Implement the web applications with Database using (a) JSP, (b) Servlets and (c) JSP.	63-72
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WEEK 1:

Design the following static web pages required for an online book store web site.

1) HOME PAGE: The static home page must contain three **frames**.

2) LOGIN PAGE

3) CATALOGUE PAGE: The catalogue page should contain the details of all the books available in the web site in a table.

4) REGISTRATION PAGE

Aim: Design the following static web pages required for online book store.

1. Home page:- the static home page must contains three pages

2. Top frame:- logo and college name and links to homepage, login page, registration page and catalogue page

3. Left frame:- at least four links for navigation which will display the catalogue of Respective links

4. Right frame:- the pages to links in the left frame must be loaded here initially it Contains the description of the website.

DESCRIPTION: In this program the entire web paged are created by using basic HTML tags. Home page is divided into 3 frames by using <frameset> and <frame> tags. A frame is used to display a web page within a web page.

<frameset>:

- The <frameset> tag defines a frameset.
- The <frameset> element holds one or more <frame> elements.
- Each <frame> element can hold a separate document.
- The <frameset> element specifies HOW MANY columns or rows there will be in the frameset, and HOW MUCH percentage/pixels of space will occupy each of them.

<frame>:

- The <frame> tag defines one particular window (frame) within a <frameset>.
- Each <frame> in a <frameset> can have different attributes, such as border, scrolling, the ability to resize, etc.

PROGRAM:**home.html:**

```
<frameset rows="40%,*">
  <frame src="top.html" noresize scrolling="NO" name="topframe">
</frameset>
<frameset cols="15%,*">
  <frame src="left.html" noresize scrolling="NO" name="leftframe">
  <frame src="right.html" noresize name="rightframe" scrolling="auto">
</frameset>
</frameset>
```

top.html:

```
<html>
<head>
  <title>Top Frame</title>
```

```

</head>
<body bgcolor="YellowGreen">
  
  
  <center>
    <marquee bgcolor="yellow" width="650" behavior="alternate">
      <font face="Brush Script MT" size="8" color="green"><b><i>Online Book Store</i></b>
    </font>
  </marquee> <br>
  <font face="Brush Script" size="6" color="white"><b>Created & Maintained By
MRCET</b></font>
  </center>
  <br>
  <table width="100%" height="50%" cellpadding="10">
  <tr align="center">
    <td> <a href="Home.html" target="_parent"><font face="Brush Script" size="6"
color="navy">HOME </a> </td>
    <td> <a href="login.html" target="rightframe"><font face="Brush Script" size="6"
color="navy">LOGIN</a> </td>
    <td> <a href="registration.html" target="rightframe"> <font face="Brush Script" size="6"
color="navy">REGISTER </a> </td>
    <td> <a href="catalogue.html" target="rightframe"> <font face="Brush Script" size="6"
color="navy">CATALOGUE</a> </td>
  </tr>
</table>
</body>
</html>

```

left.html:

```

<html>
  <body align="center" bgcolor="bisque"> <br>
    <a href="cse.html" target="rightframe"><font size="6">CSE</font></a><br><br>
    <a href="ece.html" target="rightframe"><font size="6">ECE</font></a><br><br>
    <a href="eee.html" target="rightframe"><font size="6">EEE</font></a><br><br>
    <a href="mech.html" target="rightframe"><font size="6">MECH</font></a><br>
  </body>
</html>

```

right.html:

```

<html>
  <body bgcolor="orange">
    <center>
      <br>
      <font face="Brush Script MT" size="5" color="blue">
        <h1><b>Welcome to the Online Book Store!!!</b></font><br />
      <font face="Brush Script MT" size="5" color="red">

```

```
<h2><b> "A Huge Collection Of Engineering E-Books"</b></h2></font>
</center>
</body>
</html>
```

cse.html:

```
<html>
  <head><title>CSE</title></head>
  <body bgcolor="cyan">
    <center><font color="blue"><h1>Computer Science and Engineering</h1></font></center>
    <br>
    <table align="center">
      <tr>
        <td>Text Books</td>
        <td>
          <select >
            <option value="select the book" selected>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
          </select>
        </td></tr>
      <tr>
        <td>Quantity</td>
        <td><input type="text" id="q"></td>
      </tr>
      <tr>
        <td></td>
        <td>
          <form method=post action="order.html">
            <input type="submit" value=ok />
          </form>
        </td>
      </tr>
    </table>
    <center>
      <pre> Cost of one book is"500" + shipping "100" </pre>
    </center>
  </body>
</html>
```

ece.html:

```
<html>
  <body bgcolor="Plum">
    <h1><font color="blue">Electronics and Communication Engineering</font></h1>
```

```

<h2>
  <ul>
    <li>Digital Circuits</li> <li>Signals and Systems</li> <li>Digital Communication</li>
  </ul>
</h2>
</body>
</html>

```

eee.html:

```

<html>
  <body bgcolor="Plum">
    <h1><font color="blue">Electrical and Electronics Engineering</font></h1>
    <h2>
      <ul type="square">
        <li>Concepts in Electric Circuits</li>
        <li>Introduction to Electronic Engineering</li>
        <li>Electrical Power</li>
      </ul>
    </h2>
  </body>
</html>

```

mech.html:

```

<html>
  <body bgcolor="Plum">
    <h1><font color="blue">Electronics and Communication Engineering</font></h1>
    <h2>
      <ol type="I">
        <li>Theory of Machines</li>
        <li>Automation and Robotics</li>
        <li>Engineering Fluid Mechanics</li>
      </ol>
    </h2>
  </body>
</html>

```

catalogue.html:

```

<html>
  <head>
    <title> Catalogue </title>
  </head>
  <body bgcolor="pink">
    <form action="order.html">
      <table border="1" width="100%">
        <tr>
          <td>
            
          </td>
          <td> Book: Web Technologies <br> Author: Uttam K. Roy <br> Publication:Oxford

```

```

University Press</td> <td>531 &nbsp;&nbsp;&nbsp;&nbsp;&nbsp;</td>
  <td> <input type="submit" value="Add to cart"/></td> </tr>
<tr>
  <td> </td>
  <td> Book: PHP & MySQL Web Development <br> Author:Luke Welling & Laura
    Thompson <br> Publication:PEARSON</td> <td> 898 &nbsp;&nbsp;&nbsp;&nbsp;&nbsp;</td>
  <td> <input type="submit" value="Add to cart"/></td> </tr>
</table> </form>
</body> </html>

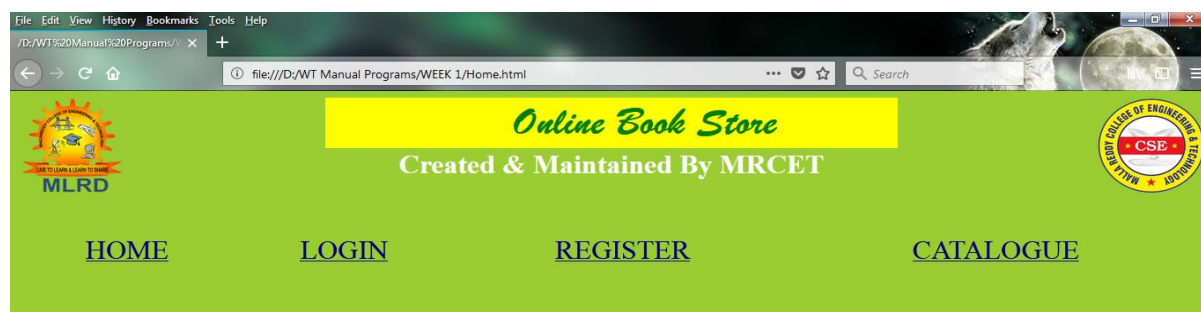
```

login.html:

```
<html>
<body bg color="pink">
  <basefont face="Cambria" size="4"> <br>
  <center>
    <br />
    <font face="Brush Script MT" size="7" color="purple">
      <b>Enter Login Details:</b>
    </font>
  </center>
  <form name="f1" method="post" action="right.html">
    <table align="center" width="100" height="150" cellspacing="15">
      <tr><td><b>Login ID:</b></td>
        <td><input type="text" name="t1"></td>
      </tr>
      <tr>
        <td><b>Password:</b></td>
        <td><input type="password" name="t2"></td>
      </tr>
      <tr align="center">
        <td><input type="submit" name="b1" value="Submit"></td>
        <td><input type="reset" name="b2" value="Reset"></td>
      </tr>
    </table>
  </form>
</basefont>
</body>
</html>
```

registration.html:

[illegible]



[CSE](#)
[ECE](#)
[EEE](#)
[MECH](#)

LOGIN

Enter Login Details:

Login ID:

Password:

[CSE](#)
[ECE](#)
[EEE](#)
[MECH](#)

Registration Form

First Name(Minimum 6 characters)*

Last Name*

EmailAddress*
(one e-mail id only): e.g. smith@hotmail.com

Password(minimum 6 characters)*

Address*

Mobile No*

Gender: ☐ male ☐ female



CSE		Book: Web Technologies Author: Uttam K. Roy Publication: Oxford University Press	531	Add to cart
ECE		Book: PHP & MySQL Web Development Author: Luke Welling & Laura Thompson Publication: PEARSON	898	Add to cart
EEE				
MECH				

The screenshot displays the 'Online Book Store' web application, created and maintained by MRCET. The interface features a green header with navigation links: HOME, LOGIN, REGISTER, and CATALOGUE. A sidebar on the left lists academic departments: CSE, ECE, EEE, and MECH. The main content area shows the 'Computer Science and Engineering' category with a search bar for 'Text Books' (set to 'Web Technologies') and a quantity selector (set to '2'). The cost of one book is listed as '500' + shipping '100'. Below this, the 'Your order is Confirmed' message is displayed with a 'THANK YOU...Visit Again' note. The bottom section shows the 'Electronics and Communication Engineering' category with a list of books: Digital Circuits, Signals and Systems, and Digital Communication.

Online Book Store
Created & Maintained By MRCET

HOME LOGIN REGISTER CATALOGUE

CSE
ECE
EEE
MECH

Computer Science and Engineering

Text Books: Web Technologies
Quantity: 2
ok

Cost of one book is "500" + shipping "100"

Your order is Confirmed
THANK YOU...Visit Again

Electronics and Communication Engineering

- Digital Circuits
- Signals and Systems
- Digital Communication

Electrical and Electronics Engineering

- Concepts in Electric Circuits
- Introduction to Electronic Engineering
- Electrical Power

**EXERCISE:**

1. Create your class time table in a webpage.
2. Design the static web pages required for an online shopping cart.

Assignment Evaluation**Signature**

0: Not Done

☐

1: Incomplete

☐

2: Late complete

☐

3: Needs improvement

☐

4: Complete

☐

5: Well Done

☐
Signature of the
instructor

Date:

WEEK - 2: Develop and demonstrate the usage of inline, internal and external style sheet using CSS.

Aim: Design a web page using CSS which includes the following:

- 1) Use different font styles
- 2) Control the repetition of image with background-repeat and no-repeat property
- 3) Define style for links as a: link, a: active, a: hover, a: visited
- 4) Add customized cursors for links.

PROGRAM:**style.css**

```
p.left
{
text-align:left;
color:blue;
font-family:Cambria;
font-size:large;
text-indent:20px;
}
p.center
{
text-align:center;
text-decoration:underline;
text-transform:uppercase;
letter-spacing:-3px;
word-spacing:20px;
font-size:larger;
}
p.right
{
text-align:right;
color:red;
font-family:Tahoma;
font-size:15pt;
text-decoration:overline;
font-style:italic;
}
b#headline
{
color:orange;
font-size:22px;
font-family:arial;
```

```
text-decoration:underline;
}
```

sample.html

```
<html>
<head>
  <style type="text/css">
    body
    {
      background-image:url('images/cse.png');
      background-repeat:no-repeat;
      background-position:center center;
      background-attachment:fixed;
      background-color:pink;
    }
    a:link { text-decoration:none;color:orange; }
    a:visited { text-decoration:none;color:red; }
    a:hover { text-decoration:underline;color:blue; }
    a:active { text-decoration:underline;color:purple; }
    h3 { color:green; }
    .c1{cursor:crosshair}
    .c2{cursor:pointer}
    .c3{cursor:move}
    .c4{cursor:text}
    .c5{cursor:wait}
    .c6{cursor:help}
  </style>
  <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body bgcolor="cyan">

  <h1 style="color:blue;text-align:center;"> CSS (Inline, Internal and External) </h1>

  <p>This Paragraph is a Not Styled</p>
  <p class="left">This Paragraph is Styled by class "Left"</p>
  <p class="center">This Paragraph is Styled by class "Center"</p>
  <p class="right">This Paragraph is Styled by class "Right"</p>
  <b>This is normal Bold</b> <br>
  <b id="headline">This Bold Text is Styled </b>

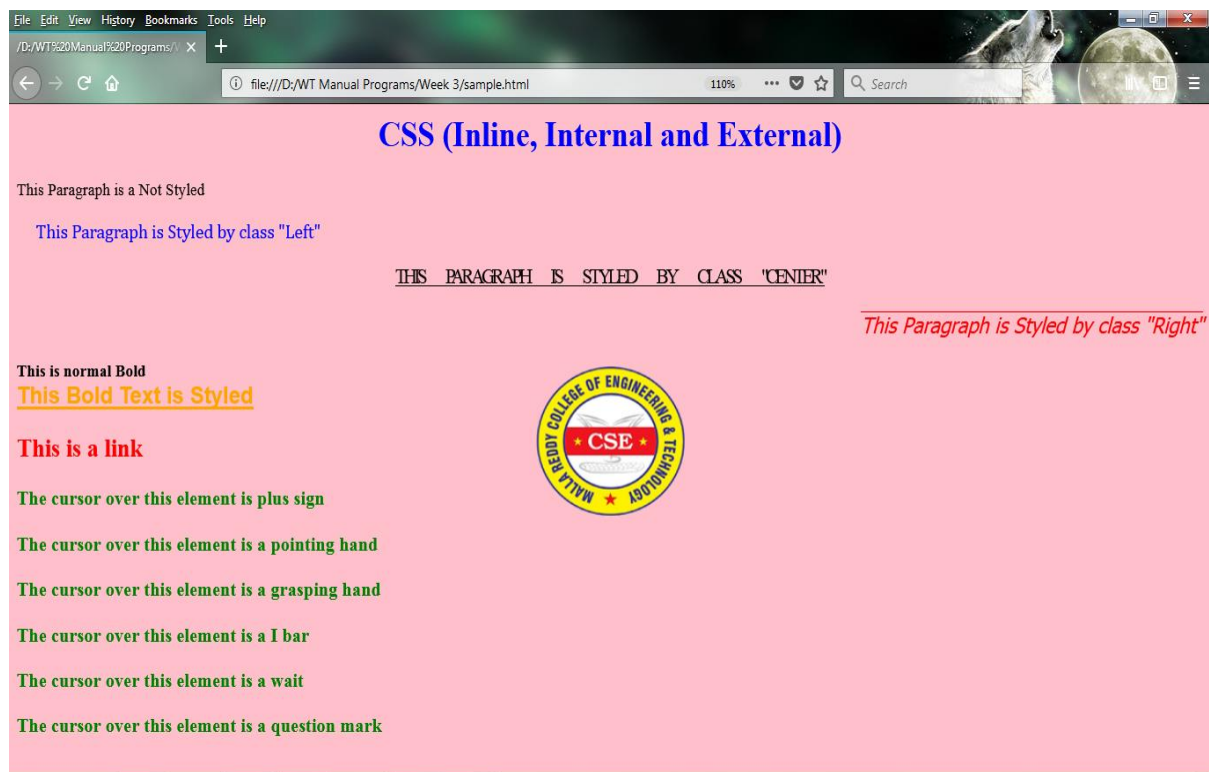
  <h2><b><a href=" ">This is a link</a></b></h2>
```

```

<h3 class="c1">The cursor over this element is plus sign</h3>
<h3 class="c2">The cursor over this element is a pointing hand</h3>
<h3 class="c3">The cursor over this element is a grasping hand</h3>
<h3 class="c4">The cursor over this element is a I bar</h3>
<h3 class="c5">The cursor over this element is a wait</h3>

<h3 class="c6">The cursor over this element is a question mark</h3>
</html>

```

OUTPUT 1:**OUTPUT 2:** background-repeat : repeat;



EXERCISE:

- ### 1. Create a rich graphical webpage using CSS (ID selector & Class Selectors).

Assignment Evaluation

Signature

0: Not Done

11

1: Incomplete

11

2: Late complete

11

3: Needs improvement

11

4: Complete

7

5: Well Done

Signature of the
instructor

--

Date:

WEEK 3: Write JavaScript to validate the following fields of the Registration page.

1. **First Name** (Name should contains alphabets and the length should not be less than 6 characters).
2. **Password** (Password should not be less than 6 characters length).
3. **E-mail id** (should not contain any invalid and must follow the standard pattern [name@domain.com](#))
4. **Mobile Number** (Phone number should contain 10 digits only).
5. **Last Name and Address** (should not be Empty).

AIM: To validate the fields of registration page using JavaScript

DESCRIPTION: In order to validate the fields of login and registration pages JavaScript is used. JavaScript is programming code that can be inserted into HTML pages. JavaScript inserted into HTML pages, can be executed by all modern web browsers. JavaScript is mainly used for validating the elements in a form submitted by the user. This JavaScript code can react to user events.

PROGRAM: After clicking OK button the page is redirected to success.html

```
<html>
<head><title>Registration Form Validation</title></head>
<body bgcolor="#E4F0F8">
  <script type='text/javascript'>
    function formValidator()
    {
      // Make quick references to our fields
      var firstname = document.getElementById('firstname');
      var lastname = document.getElementById('lastname');
      var email = document.getElementById('email');
      var pass = document.getElementById('pass');
      var addr = document.getElementById('addr');
      var mobileneno = document.getElementById('mobileneno');

      // Check each input in the order that it appears in the form!
      if(notEmpty(firstname, "can not be null")){
        if(isAlphabet(firstname, "Please enter only letters for your Firstname")){
          if(lengthRestriction(firstname, 6)){
            if(isAlphabet(lastname, "Please enter only letters for your Lastname")){
              if(emailValidator(email, "Please enter a valid email address")){
                if(lengthRestriction(pass, 6)){
                  if(isAlphanumeric(pass, "please enter Numbers and Letters Only for password")){
                    if(notEmpty(addr, "please enter the address")){
                      if(isNumeric(mobileneno, "Please enter a valid mobileneno")){
                        if(lengthRestriction1(mobileneno, 10 , 10)){
                          return true;
                        }
                      }
                    }
                  }
                }
              }
            }
          }
        }
      }
    }
  }
</script>
</body>
</html>
```

```
    }    }    }
    return false;

}
function notEmpty(elem, helperMsg){
    if(elem.value.length == 0){
        alert(helperMsg);
        elem.focus(); // set the focus to this input
        return false;
    }
    return true;
}

function isNumeric(elem, helperMsg){
    var numericExpression = /^[0-9]+$/;
    if(elem.value.match(numericExpression)){
        return true;
    }else{
        alert(helperMsg);
        elem.focus();
        return false;
    }
}

function isAlphabet(elem, helperMsg){
    var alphaExp = /^[a-zA-Z]+$/;
    if(elem.value.match(alphaExp)){
        return true;
    }else{
        alert(helperMsg);
        elem.focus();
        return false;
    }
}

function isAlphanumeric(elem, helperMsg){
    var alphaExp = /^[0-9a-zA-Z]+$/;
    if(elem.value.match(alphaExp)){
        return true;
    }else{
        alert(helperMsg);
        elem.focus();
        return false;
    }
}

function lengthRestriction(elem, min){
    var uInput = elem.value;
    if(uInput.length >= min){
        return true;
    }else{
```


[illegible]


```
<input type='text' id='mobilenno' /><br />  
Gender: <input type='radio' name='gender'>male  
        <input type='radio' name='gender'>female<br/><br />  
<input type='Submit' value='submit' />
```

```
<input type='Reset' value='reset' />  
</form>  
</body>  
</html>
```

OUTPUT:

The first screenshot shows a web browser window titled "Registration Form Validation" with the address bar displaying "file:///D:/WT Manual Programs/validation.html". The form is titled "Registration Form" and contains the following fields: "First Name(Minimum 6 characters)*", "Last Name*", "EmailAddress*" (with a hint "(one e-mail id only): e.g. smith@hotmail.com"), "Password(minimum 6 characters)*", "Address*", "Mobile No*", and "Gender: male female". There are "submit" and "reset" buttons at the bottom. A validation error dialog box is displayed in the center, stating "can not be null" with an "OK" button.

The second screenshot shows the same browser window and form. The "First Name" field now contains the text "78787". A new validation error dialog box is displayed, stating "Please enter only letters for your Firstname" with an "OK" button.

The screenshot shows a web browser window titled "Registration Form Validation" with the address bar displaying "file:///D:/WT Manual Programs/validation.html". The page has a dark background with a wolf's head and a moon. The "Registration Form" is displayed with the following fields and values:

- First Name(Minimum 6 characters)*: fds
- Last Name*: (empty)
- EmailAddress*: (empty)
- (one e-mail id only): e.g. smith@hotmail.com
- Password(minimum 6 characters)*: (empty)
- Address*: (empty)
- Mobile No*: (empty)
- Gender: ☐ male ☐ female

A validation error message box is shown: "Please enter minimum 6 characters" with an "OK" button. At the bottom are "submit" and "reset" buttons.

This screenshot shows the same registration form with the following values:

- First Name(Minimum 6 characters)*: mrcetcse
- Last Name*: (empty)
- EmailAddress*: (empty)
- (one e-mail id only): e.g. smith@hotmail.com
- Password(minimum 6 characters)*: (empty)
- Address*: (empty)
- Mobile No*: (empty)
- Gender: ☐ male ☐ female

A validation error message box is shown: "Please enter only letters for your Lastname" with an "OK" button. The "submit" and "reset" buttons are at the bottom.

This screenshot shows the same registration form with the following values:

- First Name(Minimum 6 characters)*: mrcetcse
- Last Name*: thirdyear
- EmailAddress*: mrcetcse@
- (one e-mail id only): e.g. smith@hotmail.com
- Password(minimum 6 characters)*: (empty)
- Address*: (empty)
- Mobile No*: (empty)
- Gender: ☐ male ☐ female

A validation error message box is shown: "Please enter a valid email address" with an "OK" button. The "submit" and "reset" buttons are at the bottom.

The image displays three sequential screenshots of a web browser window showing a registration form titled "Registration Form". The browser's address bar shows the file path: file:///D:/WT Manual Programs/validation.html. The form fields and their values are as follows:

- First Name (Minimum 6 characters)*: mrcetcse
- Last Name*: thirdyear
- Email Address*: mrcetcse@gmail.com (one e-mail id only): e.g. smyth@hotmail.com
- Password (minimum 6 characters)*: [masked]
- Address*: [empty]
- Mobile No*: [empty]
- Gender: ☐ male ☐ female

Buttons: submit, reset

Screenshot 1 (Top): A validation error dialog box is displayed in the center of the screen. The message reads: "Please enter minimum 6 characters". Below the message is a checkbox labeled "Prevent this page from creating additional dialogs" and an "OK" button.

Screenshot 2 (Middle): The "Address" field is now filled with "Kompally Hyderabad". A new validation error dialog box is displayed with the message: "please enter the address". It includes an "OK" button.

Screenshot 3 (Bottom): The "Mobile No" field is now filled with "bhghgh". A new validation error dialog box is displayed with the message: "Please enter a valid mobilen0". It includes an "OK" button.

The image displays two screenshots of a web browser window showing a registration form titled "Registration Form". The browser's address bar shows the file path: `file:///D:/WT Manual Programs/validation.html`.

Top Screenshot: The form contains the following fields and values:

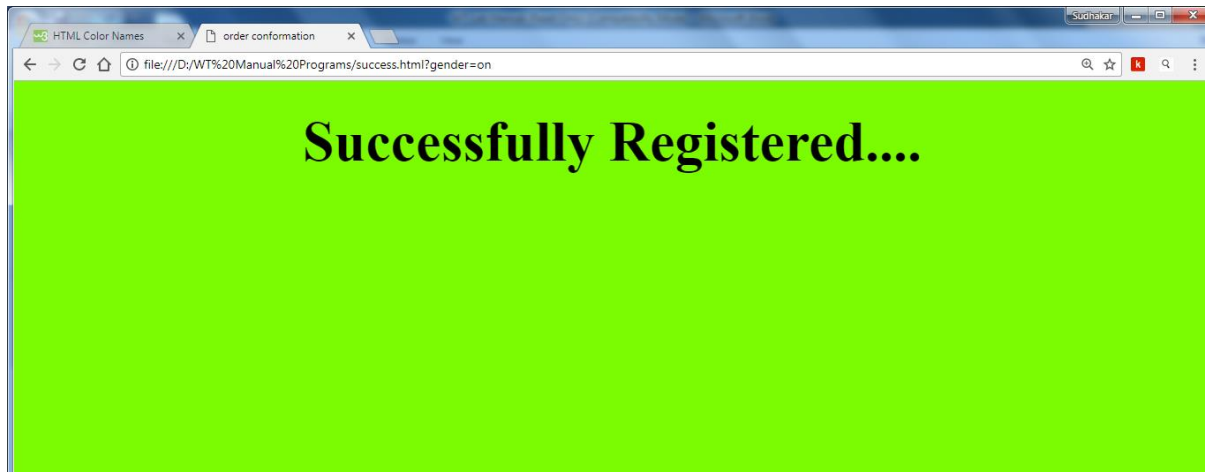
- First Name (Minimum 6 characters)*: `mrcetcse`
- Last Name*: `thirdyear`
- Email Address*: `mrcetcse@gmail.com`
(one e-mail id only): `e.g. smith@hotmail.com`
- Password (minimum 6 characters)*: `*****`
- Address*: `Kompally Hyderabad`
- Mobile No*: `123456`
- Gender: ☐ male ☐ female

A validation error message is displayed in a white box: "Please enter 10 numbers only". The "submit" and "reset" buttons are visible at the bottom.

Bottom Screenshot: The form contains the following fields and values:

- First Name (Minimum 6 characters)*: `mrcetcse`
- Last Name*: `thirdyear`
- Email Address*: `mrcetcse@gmail.com`
(one e-mail id only): `e.g. smith@hotmail.com`
- Password (minimum 6 characters)*: `*****`
- Address*: `Kompally Hyderabad`
- Mobile No*: `1234567890`
- Gender: ☒ male ☐ female

The "submit" and "reset" buttons are visible at the bottom.

**Assignment Evaluation****Signature**

0: Not Done

☐

1: Incomplete

☐

2: Late complete

☐

3: Needs improvement

☐

4: Complete

☐

5: Well Done

☐Signature of the
instructor

Date:

WEEK - 4: Develop and demonstrate JavaScript with POP-UP boxes and functions for the following problems:

- a) Input: Click on Display Date button using onclick() function
Output: Display **date** in the textbox
- b) Input: A number n obtained using **prompt**
Output: **Factorial** of n number using **alert**

PROGRAM:

a) date.html

```
<html>
<body>
  <script>
    function display(){
      var x="You have clicked";
      var d=new Date();
      var date=d.getDate();
      var month=d.getMonth();
      month++;
      var year=d.getFullYear();
      document.getElementById("dis").value=date+"/"+month+"/"+year;
    }
  </script>
</form>
<input type="text" id="dis" /><br />
<input type="button" value="Display Date" onclick="display()" />
</form>
</body>
</html>
```

OUTPUT:



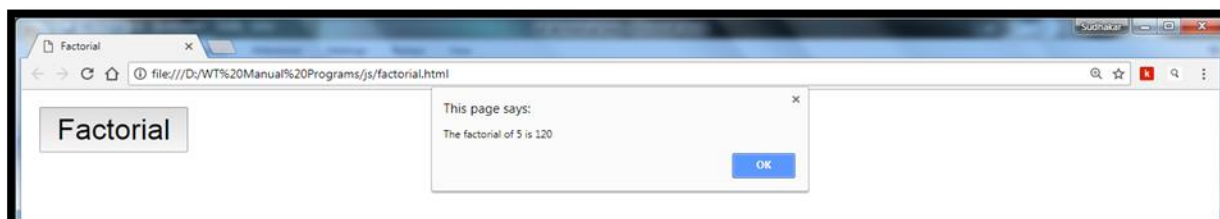
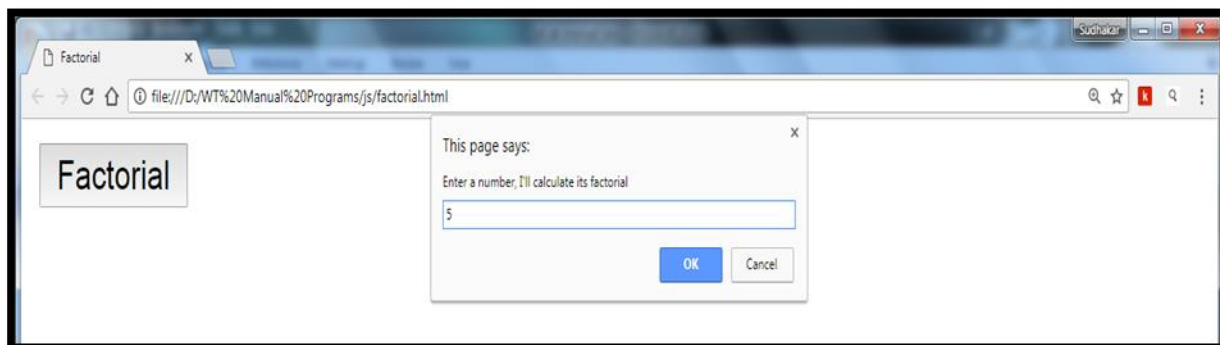
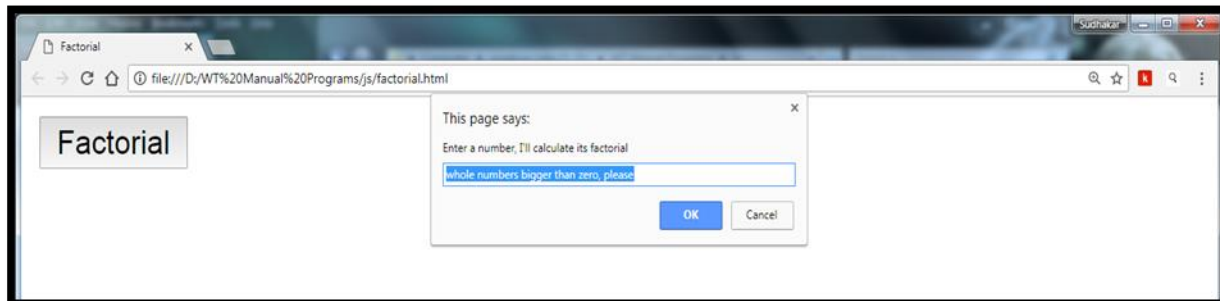
26/11/2017

Display Date

b) factorial.html

```
<html>
<head>
  <title>factorial</title>
  <script language='javascript'>
```

```
function factorialcalc()  
{  
    number = parseInt(prompt("enter a number, i'll calculate its factorial", "whole  
        numbers bigger than zero, please"))  
    factorial = 1  
    for (i=1; i <= number; i++)  
    {  
        factorial = factorial * i  
    }  
    alert("the factorial of " + number + " is " + factorial)  
}  
</script>  
</head>  
<body><form name=frm>  
<input type=button value='factorial' onclick='factorialcalc();'>  
</form>  
</body>  
</html>
```

OUTPUT:

Assignment Evaluation

Signature

0: Not Done

☐

1: Incomplete

☐

2: Late complete

☐

3: Needs improvement

☐

4: Complete

☐

5: Well Done

☐

Signature of the
instructor

Date:

Week 5:

a) Input: A number n obtained using **prompt**

Output: A **multiplication table** of numbers from 1 to 10 of n using **alert**

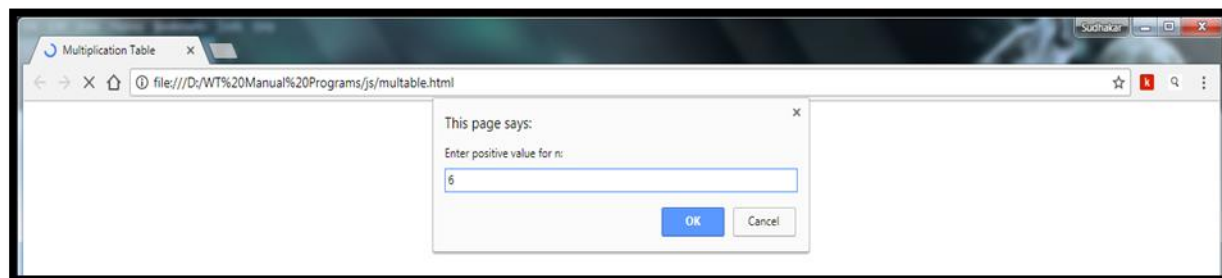
b) Input: A number n obtained using **prompt** and add another number using **confirm**

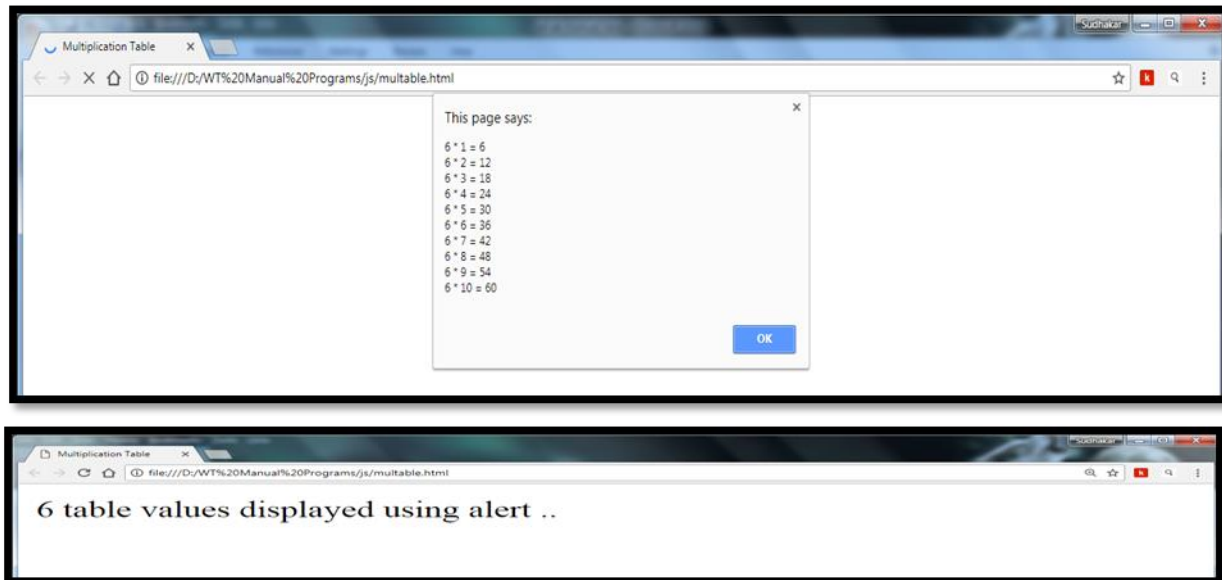
Output: **Sum** of the entire n numbers using **alert**

a) multable.html

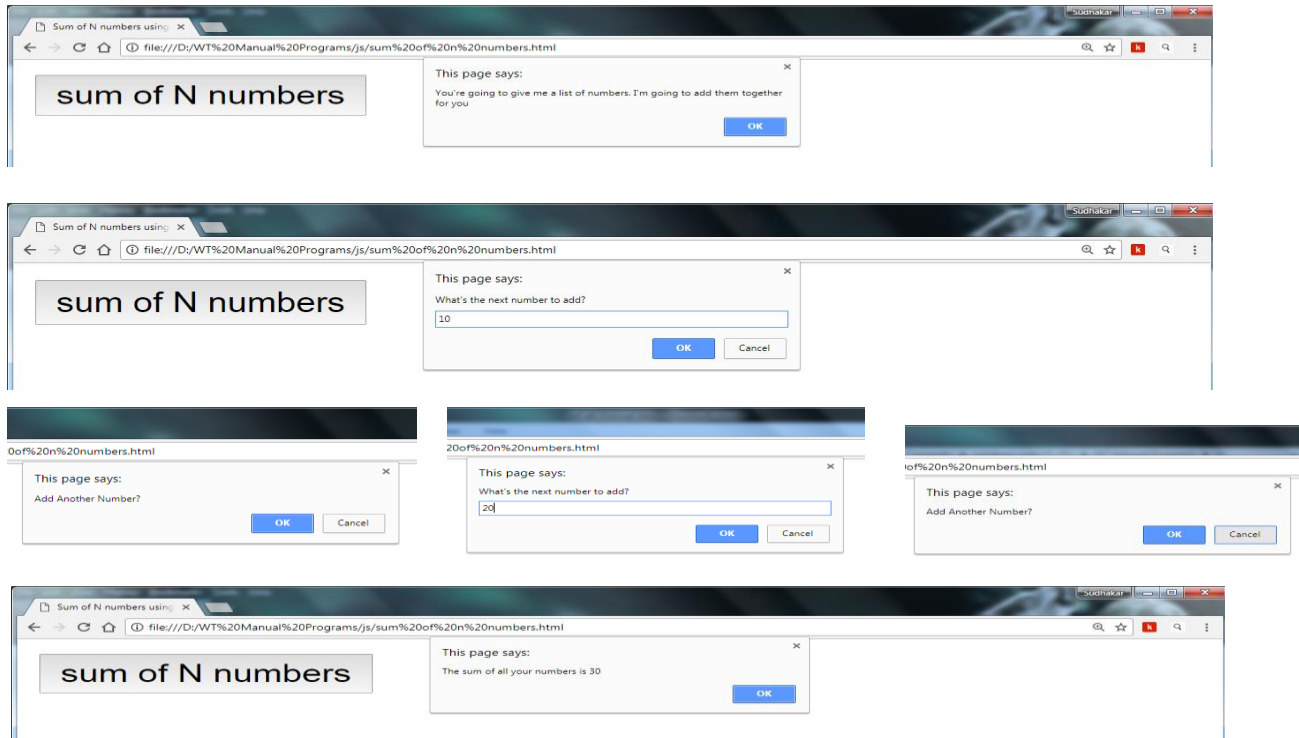
```
<html>
<head><title> Multiplication Table </title></head>
<body>
<script type="text/javascript">
<!--
var n=prompt("Enter positive value for n: "," ");
if(!isNaN(n)) {
    var table="";
    var number="";
    for(i=1;i<=10;i++) {
        number = n * i;
        table += n + " * " + i + " = " + number + "\n";
    }
    alert(table);
}
else {
    alert("Enter positive value");
    n=prompt("Enter positive value for n: "," ");
}
document.write(n+" table values displayed using alert ..<br />");
// -->
</script>
</body>
</html>
```

OUTPUT:



**b) sum of n numbers.html**

```
<html>
  <head><title>sum of n numbers using popup boxes</title>
  <script language='javascript'>
    function addsum()
    {
      alert("you're going to give me a list of numbers. i'm going to add them together for you");
      var keepgoing = true
      var sumofnums = 0
      while (keepgoing) {
        sumofnums = sumofnums + parseInt(prompt("what's the next number to add?",""))
        keepgoing = confirm("add another number?")
      }
      alert("the sum of all your numbers is " + sumofnums)
    }
  </script>
</head>
<body>
  <form name=frm>
    <input type=button value='sum of n numbers' onclick="addsum();">
  </form>
</body>
</html>
```

OUTPUT:**EXERCISE:**

1. Write a JavaScript program to find out the Fibonacci Series.
2. Write a JavaScript program to check the given number is palindrome or not.

Assignment Evaluation**Signature**

0: Not Done

☐

1: Incomplete

☐

2: Late complete

☐

3: Needs improvement

☐

4: Complete

☐

5: Well Done

☐
Signature of the
instructor

Date:

WEEK - 6:

Write an HTML page that contains a selection box with a list of 5 countries. When the user selects a country, its capital should be printed next in the list. Add CSS to customize the properties of the font of the capital (color,bold and font size).

```
<html>
<head>
  <title>WT Lab manual program no. 3</title>
</head>
<style>
  h1
  {
    color: red;
    text-align: center;
  }
  .textbox1
  {
    color: blue;
    font-size: 30px;
    font-weight: bold;
  }
</style>
<body>
  <center>
    <h1> Select the country name to find its capital</h1>
    <form name="myform">
      Select Country <select name="country" id="sbox1" onClick="myFunction()" required>
        <option value=""></option>
        <option value="NEW DELHI">INDIA</option>
        <option value="CANBERRA">AUSTRALIA</option>
        <option value="WASHINGTON D.C">AMERICA</option>
        <option value="LONDON">UNITEDKINGDOM</option>
        <option value="BERLIN">GERMANY</option>
      </select><br><br>
      Capital <input type="text" class="textbox1" id="sbox2">
    </form>
  </center>
<script>
function myFunction()
{
  var a=document.getElementById("sbox1").value;
  document.getElementById("sbox2").value=a;
}
</script>    </body>    </html>
```

OUTPUT:

Select the country name to find its capital

Select Country:

Capital:

Assignment Evaluation**Signature**

0: Not Done

1: Incomplete

2: Late complete

3: Needs improvement

4: Complete

5: Well Done

Signature of the
instructor

Date:

WEEK-7

Write an XML file which will display the Book information which includes the following:

- 1) Title of the book
- 2) Author Name
- 3) ISBN number
- 4) Publisher name
- 5) Edition
- 6) Price

Write a Document Type Definition (DTD) to validate the above XML file.

Display the XML file as follows.

The contents should be displayed in a table. The header of the table should be in color GREY. And the Author names column should be displayed in one color and should be capitalized and in bold. Use your own colors for remaining columns.

Use XML schemas XSL and CSS for the above purpose.

Save as **catalog1.xml**

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE catalog SYSTEM "catalog1.dtd">

<catalog>

  <book>

    <title>Head First Java Script</title>

    <author>Kathy Sierra and Bert Bates</author>

    <isbn>1148574</isbn>

    <publisher>O'Reilly Media</publisher>

    <edition>Second</edition>

    <price>375</price>

  </book>

  <book>

    <title>Head First Servlets</title>
```

<author>Bryan Basham, Kathy Sierra and Bert
Bates</author> <isbn>58746321</isbn>

<publisher>O'Reilly Media</publisher>

<edition>Third</edition>

<price>475</price>

</book>

<book>

<title>Head First PHP & MySQL</title>

<author>Lynn Beighley Michael Morrison
</author> <isbn>965844712</isbn>

<publisher>O'Reilly Media</publisher>

<edition>First</edition>

<price>365</price>

</book>

<book>

<title>Head First WebDesign</title>

<author>Ethan Watrall </author>

<isbn>764485142</isbn>

<publisher>O'Reilly Media</publisher>

<edition>First</edition>

<price>390</price>

</book>

</catalog>

Save as **catalog1.dtd**

```
<?xml version="1.0" encoding="UTF-8"?>

<!ELEMENT catalog (book)*>
<!ELEMENT book (title,author,isbn,publisher,edition,price)>
<!ELEMENT title (#PCDATA)>
<!ELEMENT author (#PCDATA)>
<!ELEMENT isbn (#PCDATA)>

<!ELEMENT publisher (#PCDATA)>
<!ELEMENT edition (#PCDATA)>
<!ELEMENT price (#PCDATA)>
```

XMLSchema

Save as **catalog2.html**

```
<?xml version="1.0" encoding="UTF-8"?>

<catalog xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="catalog2.xsd">

  <book>
    <title>Head First Java Script</title>
    <author>Kathy Sierra and Bert Bates</author>
    <isbn>1148574</isbn>
    <publisher>O'Reilly Media</publisher>

    <edition>Second</edition>
    <price>375</price>
  </book>
  <book>
```


<title>Head First Servlets</title>

<author>Bryan Basham, Kathy Sierra and Bert
Bates</author> <isbn>58746321</isbn>

<publisher>O'Reilly Media</publisher>

<edition>Third</edition>

<price>475</price>

</book>

<book>

<title>Head First PHP & MySQL</title>

<author>Lynn Beighley Michael Morrison
</author> <isbn>965844712</isbn>

<publisher>O'Reilly Media</publisher>

<edition>First</edition>

<price>365</price>

</book>

<book>

<title>Head First WebDesign</title>

<author>Ethan Watrall </author>

<isbn>764485142</isbn>

<publisher>O'Reilly Media</publisher>

<edition>First</edition>

<price>390</price>

</book>

</catalog>

Save as **catalog2.xsd**

```
<?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="catalog"/>
  <xs:complexType name="book">
    <xs:sequence>
      <xs:element name="title" type="xs:string"/>
      <xs:element name="author" type="xs:string"/>
      <xs:element name="isbn" type="xs:string"/>
      <xs:element name="publisher" type="xs:string"/>
      <xs:element name="edition" type="xs:string"/>
      <xs:element name="price" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="book"/>
</xs:schema>
```

eXtensible Stylesheet Language

Save as **catalog3.xml**

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="catalog3.xsl"?>

<!DOCTYPE catalog SYSTEM "catalog.dtd">

<catalog>
  <book>
```

<title>Head First Java Script</title>

<author>Kathy Sierra and Bert Bates</author>

<isbn>1148574</isbn>

<publisher>O'Reilly Media</publisher>

<edition>Second</edition>

<price>375</price>

</book>

<book>

<title>Head First Servlets</title>

<author>Bryan Basham, Kathy Sierra and Bert
Bates</author> <isbn>58746321</isbn>

<publisher>O'Reilly Media</publisher>

<edition>Third</edition>

<price>475</price>

</book>

<book>

<title>Head First PHP & MySQL</title>

<author>Lynn Beighley Michael Morrison
</author> <isbn>965844712</isbn>

<publisher>O'Reilly Media</publisher>

<edition>First</edition>

<price>365</price>

```
</book>

<book>
<title>Head First WebDesign</title>
<author>Ethan Watrall </author>
<isbn>764485142</isbn>

<publisher>O'Reilly Media</publisher>

<edition>First</edition>
<price>390</price>

</book>

</catalog>
```

Save as **catalog3.xml**

```
<?xml version="1.0"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template match="catalog">
<html>
<head>
<title>converting in to xml</title>

</head>
<body>

<table border="1">
<tr>
<th>title</th><th>author</th><th>isbn</th>
```

```
<th>publisher</th><th>edition</th><th>price</th>
</tr>

<xsl:for-each select="book">

<tr>

<td><xsl:value-of select="title"/></td>

<td><xsl:value-of select="author"/></td>

<td><xsl:value-of select="isbn"/></td>

<td><xsl:value-of select="publisher"/></td>

<td><xsl:value-of select="edition"/></td>

<td><xsl:value-of select="price"/></td>

</tr>

</xsl:for-each>

</table>

</body>

</html>

</xsl:template>

</xsl:stylesheet>
```

Cascading Style Sheet

Save as **catalog4.xml**

```
<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/css" href="catalog4.css"?>

<!DOCTYPE catalog SYSTEM "catalog.dtd">

<catalog>

<book>

<title>Head First Java Script</title>
```

<author>Kathy Sierra and Bert Bates</author>

<isbn>1148574</isbn>

<publisher>O'Reilly Media</publisher>

<edition>Second</edition>

<price>375</price>

</book>

<book>

<title>Head First Servlets</title>

<author>Bryan Basham, Kathy Sierra and Bert Bates</author>

<isbn>58746321</isbn>

<publisher>O'Reilly Media</publisher>

<edition>Third</edition>

<price>475</price>

</book>

<book>

<title>Head First PHP & MySQL</title>

<author>Lynn Beighley Michael Morrison

</author> <isbn>965844712</isbn>

<publisher>O'Reilly Media</publisher>

<edition>First</edition>

<price>365</price>

</book>

<book>

<title>Head First WebDesign</title>

<author>Ethan Watrall </author>

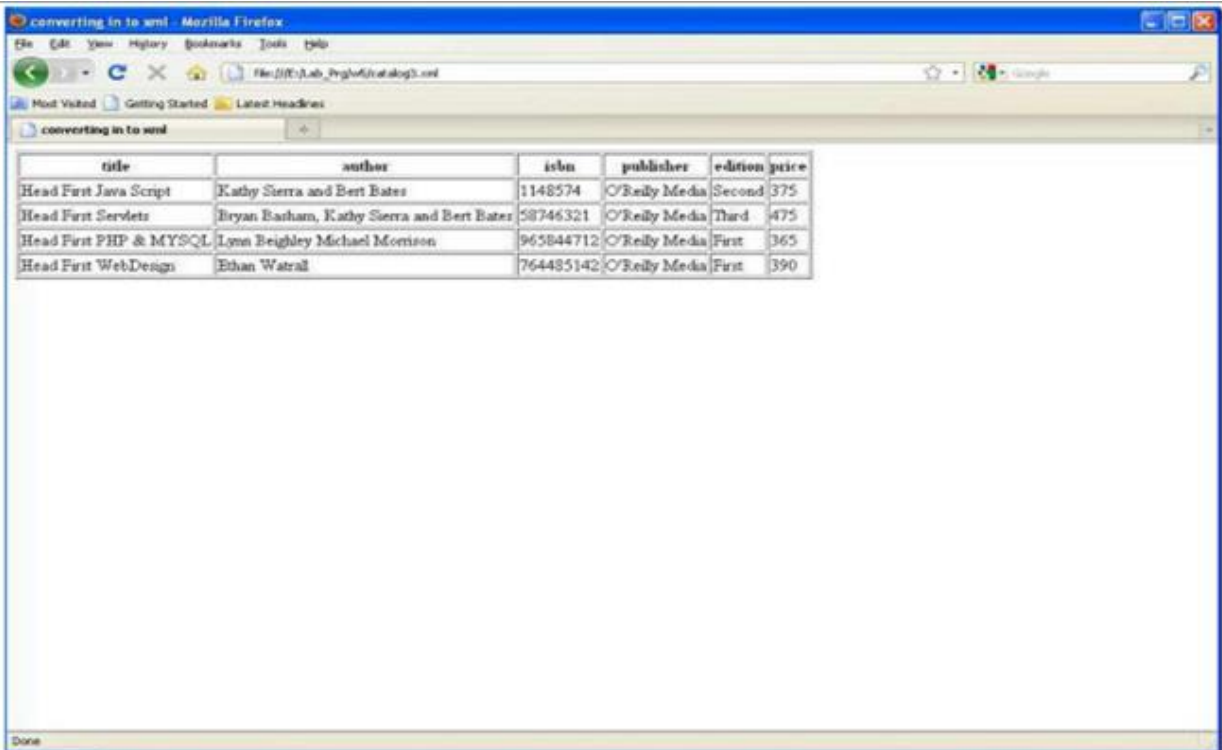
```
<isbn>764485142</isbn>  
<publisher>O'Reilly Media</publisher>  
<edition>First</edition>  
  
<price>390</price>  
  
</book>  
</catalog>
```

Save as **catalog4.css**

```
catalog  
{  
font-family:arial;  
color:red;  
  
font-size:16pt;  
}  
book  
{  
display:block;  
  
font-family:times new roman;  
color:blue;  
font-size:14pt;  
}  
title  
{  
  
font-family:Book Antiqua;
```

```
color:green;
font-size:16pt;
}

author
{
```



The screenshot shows a Mozilla Firefox browser window with the address bar displaying 'file:///C:/lab/psghof/catalog3.xml'. The page content is a table with the following data:

title	author	isbn	publisher	edition	price
Head First Java Script	Kathy Sierra and Bert Bates	1148574	O'Reilly Media	Second	375
Head First Servlets	Bryan Barham, Kathy Sierra and Bert Bates	58746321	O'Reilly Media	Third	475
Head First PHP & MYSQL	Lynn Beighley Michael Morrison	965844712	O'Reilly Media	First	365
Head First WebDesign	Ethan Watral	764485142	O'Reilly Media	First	390


```
font-family:Tempus Sans ITC;
```

```
color:blue;
```

```
font-size:16pt;
```

```
}
```

```
isbn,publisher,edition,price
```

```
{
```

```
display:block;
```

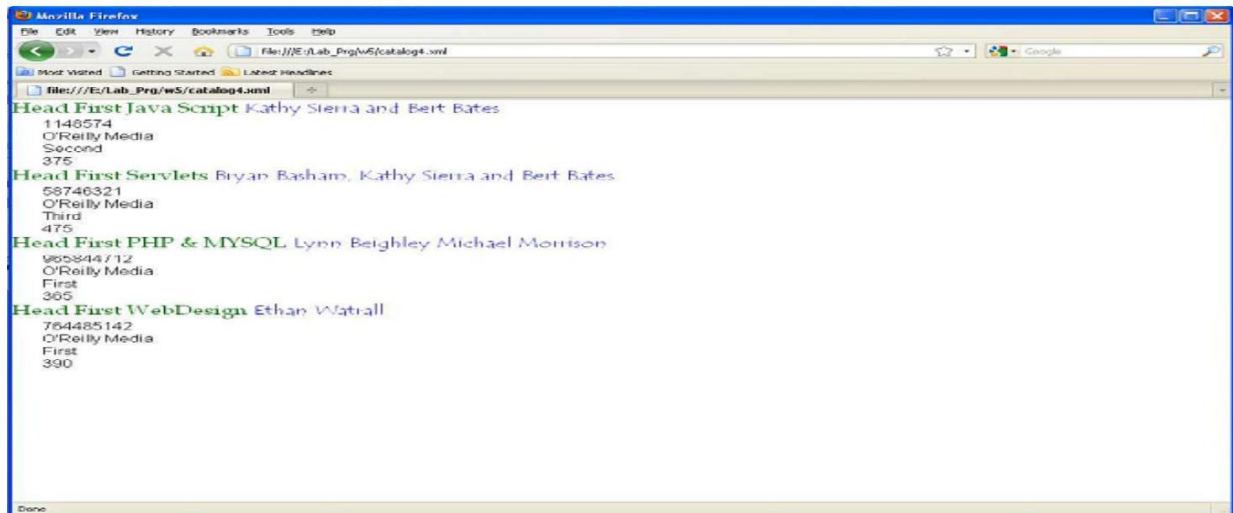
```
font-family:arial;
```

```
color:black;
```

```
font-size:12pt;
```

```
margin-left:20pt;
```

```
}
```



Excercise

1) Write an XML file which will display the Student information which includes the following:

- 1) Student name
- 2) College
- 3) Branch
- 4) Roll No
- 5) Percentage
- 6) Backlogs

Write a Document Type Definition (DTD) to validate the above XML file.

2) Create a DTD for a catalog of four stroke motorbikes, where each motor bike has the following child elements-make,model,year,engine,chasis number accessories. The engine element has the child elements engine number, number of cylinders,type of fuel. The accessories element has the attributes like disc brake, auto-start and radio,each of which is required and has the possible values yes and no. Entities must be declared for the names of the popular motorbike makes.

Assignment Evaluation**Signature**

0: Not Done

☐

1: Incomplete

☐

2: Late complete

☐

3: Needs improvement

☐

4: Complete

☐

5: Well Done

☐Signature of the
instructor

Date:

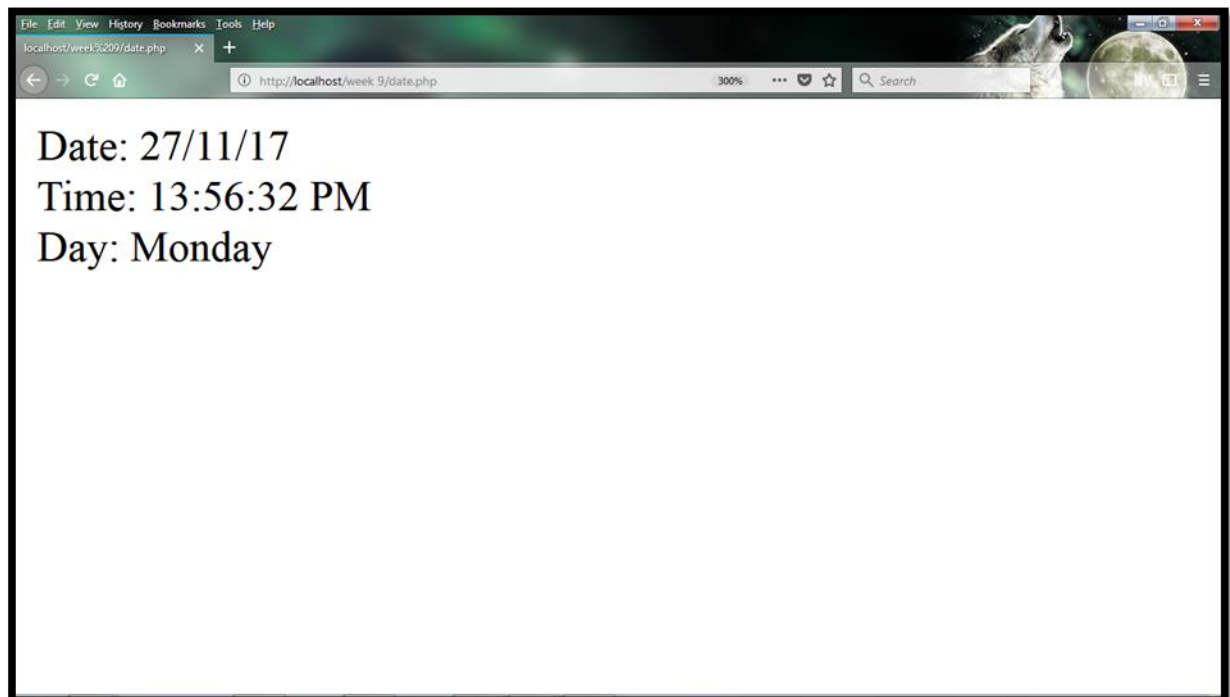
WEEK - 8: Develop and demonstrate PHP Script for the following problems:

(a). Write a PHP Program to display current Date, Time and Day using PHP Script.

AIM: To display current date , Time and Day using PHP.

PROGRAM:**date.php**

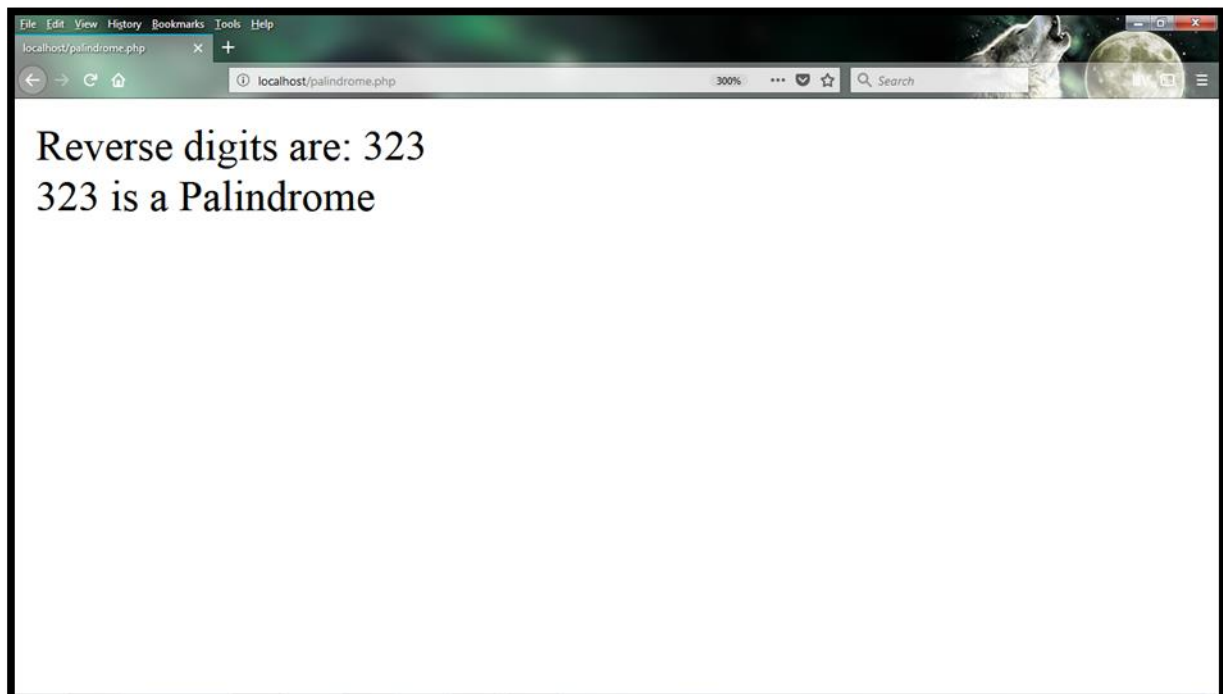
```
<?php
    date_default_timezone_set ("Asia/Calcutta");
    echo "Date: ";
    echo date("d/m/y");
    echo "<br> Time: ";
    echo date(" H:i:s A", time());
    echo "<br> Day: ";
    $day=date("l");
    echo $day;
?>
```

Output:

(b) Check whether the given number is Palindrome or not

```
<?php
$n=323;
$t=$n;
$rev=0;
while($n>0)
{
    $r=$n%10;
    $rev=$rev*10+$r;
    $n=(int)($n/10);
}
echo "Reverse digits are: $rev <br>";

if($t==$rev)
echo "$rev is a Palindrome";
else
echo "$rev is not a Palindrome";
?>
```

Output:

(c). A web application that takes name and age from an HTML page. If the age is less than 18, it should send a page with “Hello <name>, you are not authorized to visit the site” message, where <name> should be replaced with the entered name. Otherwise it should send “Welcome <name> to this site” message.

AIM: To design an application to validate age are less than 18 or more than 18 using PHP.

PROGRAM:

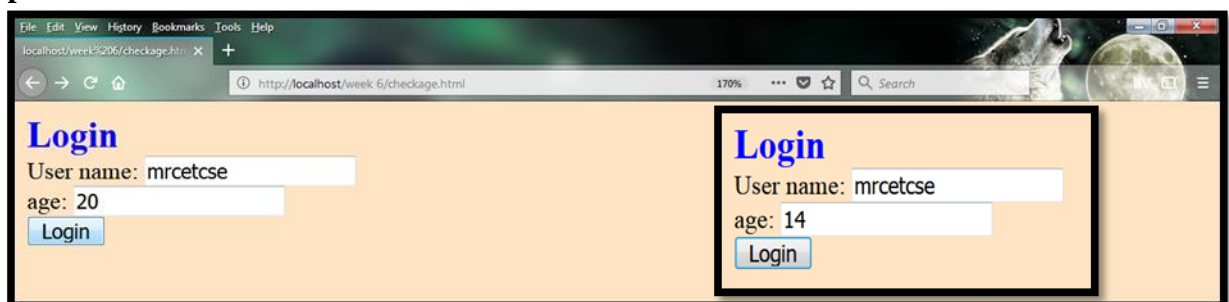
checkage.html

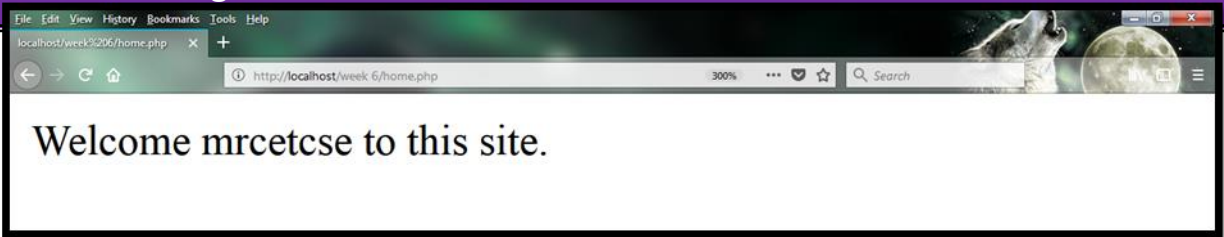
```
<html>
<body bgcolor="bisque">
  <form action='home.php' method='post'>
    <center><b><font color="blue" size="10">Login</font></b></center><br><br>
    User name: <input type='text' name='name'><br>
    age: <input type='text' name='age'><br>
    <input type='submit' value='Login'>
  </form>
</body>
</html>
```

home.php

```
<?php
$name = $_POST['name'];
$age = $_POST['age'];
if ($age < 18)
  print "Hello " . $name . " you are not authorized to visit this site.";
else
  print "Welcome " . $name . " to this site."
?>
```

Output:



**EXERCISE:**

1. Write a PHP Script to find the factorial of a given number.
2. Write a PHP Script to find the fibonacci series of a given number.

Assignment Evaluation**Signature**0: Not Done ☐1: Incomplete ☐2: Late complete ☐3: Needs improvement ☐4: Complete ☐5: Well Done ☐Signature of the
instructor

Date:

WEEK 9: Implement the following web applications using servlets**USING SERVLET****Session1.html**

```
<html>
<head> <title> SESSION LOGIN </title> </head>
<body>
<center>
<form action="http://localhost:8080/Session1/session6vib" method="get">
Enter Name: <input type="text" name="uname"> <br>
<input type="submit" value="LOGIN" name="register">
</form>
</center>
</body>
</html>
```

Session1.java

```
import javax.servlet.*;
import javax.servlet.http.*;
import java.io.*;
import java.util.*;
public class Session1 extends HttpServlet
{
    public void doGet(HttpServletRequest req, HttpServletResponse res) throws IOException,
    ServletException
    {
        try
        {
            res.setContentType("text/html");
            PrintWriter out=res.getWriter();
            out.println("<form method=get action=session26vib>");
            Date d=new Date();
            out.println("<p align=right> Time:"+d.getTime()+"</p>");
            String un=req.getParameter("uname");
            HttpSession session=req.getSession();
            session.setAttribute("user",un);
            session.setAttribute("time",d.getTime());
            out.println("Hello\t"+un);
            out.println("<br><br> <input type=submit value=logout>");
            out.println("</form>");
        }
        catch(Exception e)
        {
            e.printStackTrace(); } } }
```

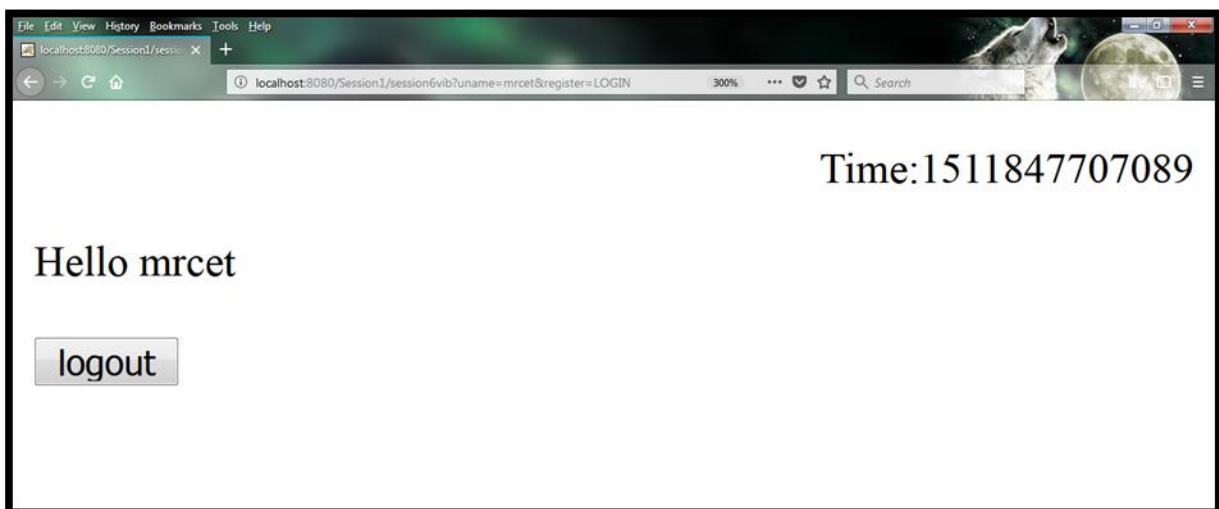
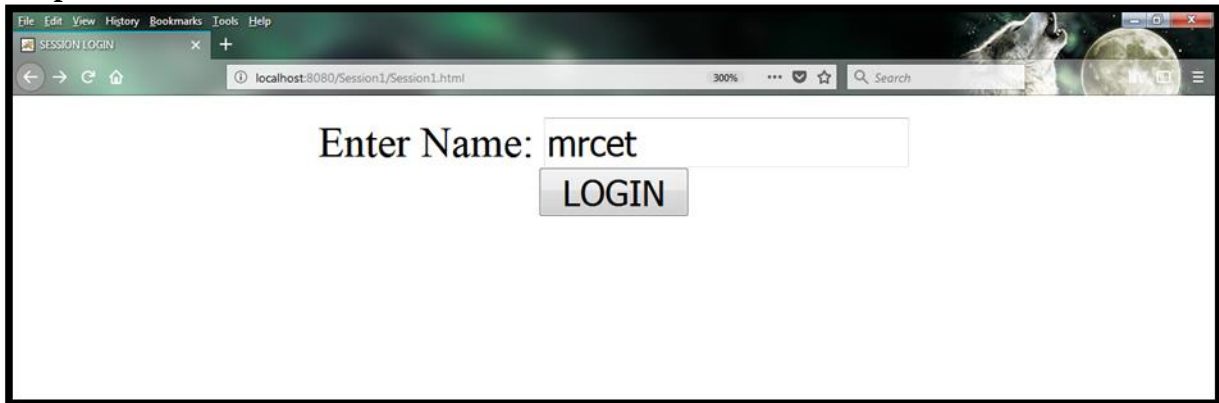

Session2.java

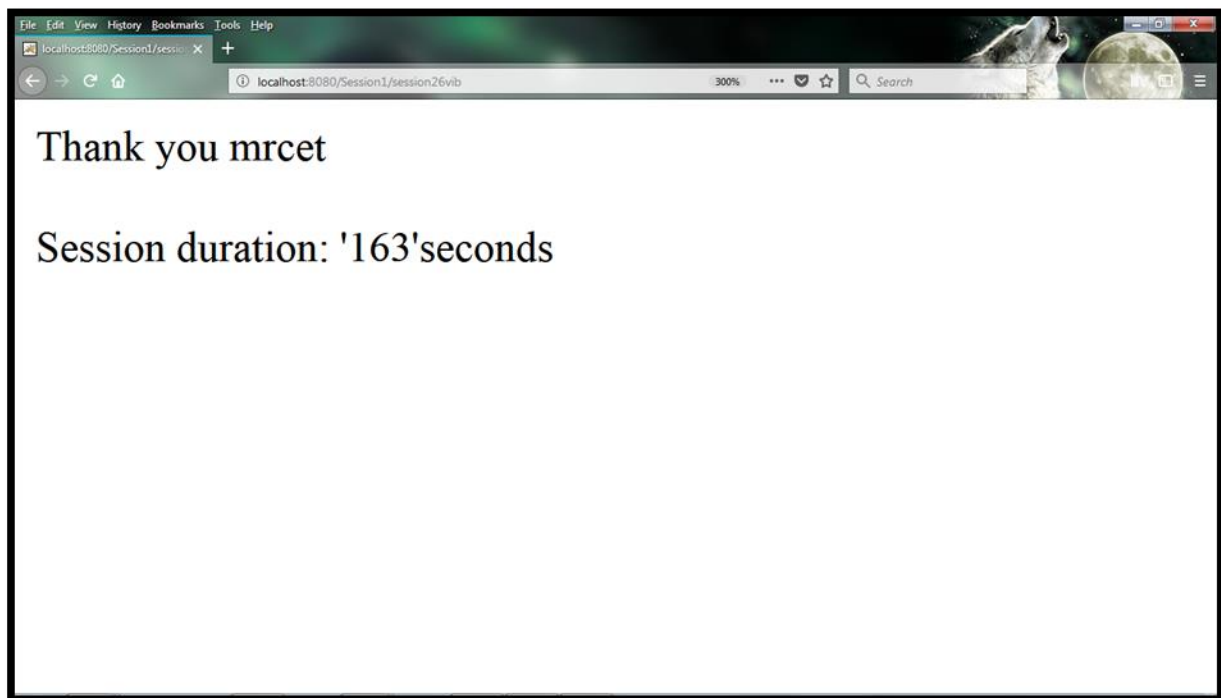
```
import javax.servlet.*;
import javax.servlet.http.*;
import java.io.*;
import java.util.*;
public class Session2 extends HttpServlet
{
    public void doGet(HttpServletRequest req, HttpServletResponse res) throws IOException,
    ServletException
    {
        try
        {
            res.setContentType("text/html");
            PrintWriter out=res.getWriter();
            HttpSession session=req.getSession();
            Date d2=new Date();
            String un=(String)session.getAttribute("user");
            Long t1=(Long)session.getAttribute("time");
            Long t2=d2.getTime();
            session.invalidate();
            out.println("Thank you\t"+un);
            out.println("<br><br> Session duration: ""+(t2-t1)/(60*60)""seconds");
        }
        catch(Exception e)
        {
            e.printStackTrace();
        }
    }
}
```

web.xml

```
<?xml version="1.0"?>
<web-app>
<servlet>
<servlet-name>session1</servlet-name>
<servlet-class>Session1</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>session1</servlet-name>
<url-pattern>/session6vib</url-pattern>
</servlet-mapping>
<servlet>
<servlet-name>session2</servlet-name>
<servlet-class>Session2</servlet-class>
</servlet>
```

```
<servlet-mapping>  
<servlet-name>session2</servlet-name>  
  
<url-pattern>/session26vib</url-pattern>  
</servlet-mapping>  
</web-app>
```

Output:



9 (ii) (b). Write a Servlet application to print the current date and time.

Aim: To print Current date and time using Servlet.

USING SERVLET

DateSrv.java

```
import java.io.*;
import javax.servlet.*;
public class DateSrv extends GenericServlet
{
    //implement service()
    public void service(ServletRequest req, ServletResponse res) throws IOException,
    ServletException
    {
        //set response content type
        res.setContentType("text/html");
        //get stream obj
        PrintWriter pw = res.getWriter();
        //write req processing logic
        java.util.Date date = new java.util.Date();
        pw.println("<h2>"+ "Current Date & Time: " +date.toString()+"</h2>");
    }
}
```

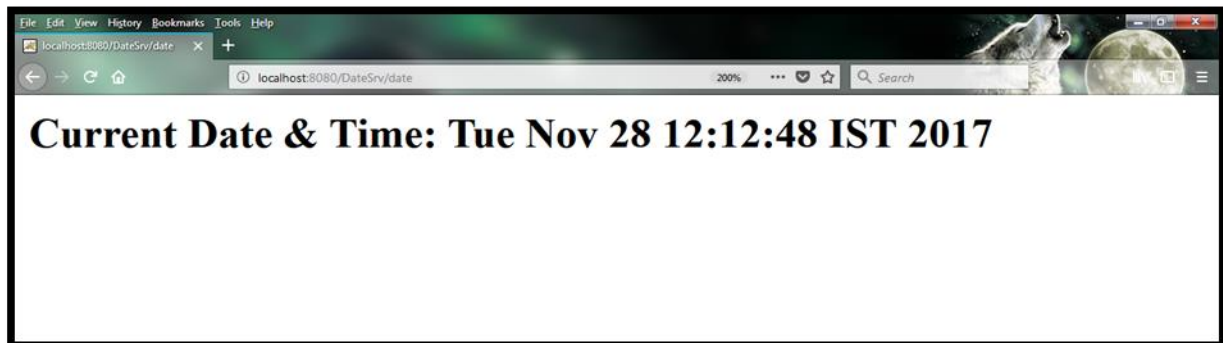
//close stream object

```
pw.close();
}
}
```

web.xml

```
<?xml version="1.0"?>
<web-app>

<servlet>
<servlet-name>Date</servlet-name>
<servlet-class>DateSrv</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>Date</servlet-name>
<url-pattern>/date</url-pattern>
</servlet-mapping>
</web-app>
```

Output:

9 (iii) (b). A web application that takes name and age from an HTML page. If the age is less than 18, it should send a page with “Hello <name>, you are not authorized to visit the site” message, where <name> should be replaced with the entered name. Otherwise it should send “Welcome <name> to this site” message.

AIM: To design an application to validate age are less than 18 or more than 18 using SERVLET.

USING SERVLET**index.html:**

```
<html>
<head>
    <title>VoterApp</title>
</head>
<body>
    <form action= "http://localhost:8080/CheckAge/check" method="get">
        <fieldset style="width:20%; background-color:#80ffcc">
            <table>

<tr><td>Name</td><td><input type="text" name="name"></td></tr>
```

```
<tr><td>Age</td><td><input type="text" name="age"></td></tr>
    <tr><td></td></tr>
    <td><input type = "submit" value="Check Eligibility"></td></tr>
</table>
</fieldset>
</form>
</body>
</html>
```

VoterSrv.java:

```
import java.io.*;

import java.util.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class VoterSrv extends HttpServlet
{
    public void service(HttpServletRequest req, HttpServletResponse res) throws
IOException,ServletException
    {
        //set response content type
        res.setContentType("text/html");
        //get printWrite obj
        PrintWriter pw = res.getWriter();
        //read form data from page as request parameter
        String name = req.getParameter("name");
        int age = Integer.parseInt(req.getParameter("age"));
        if (age>=18)
        {
            pw.println("<font color='green' size='4'>Welcome "+name+" to this site</font>");
        }
        else
            pw.println("<font color='red' size='4'>Hello "+name+", you are not authorized to
visit the site</font>");
        //add hyperlink to dynamic page
        pw.println("<br><br><a href= 'index.html'>back</a>");
        //close the stream
        pw.close();
    }
}
```

web.xml:

```
<web-app>
    <servlet>
        <servlet-name>abc</servlet-name>
        <servlet-class>VoterSrv</servlet-class>
    </servlet>
```

```
<servlet-mapping>
    <servlet-name>abc</servlet-name>
    <url-pattern>/check</url-pattern>
</servlet-mapping>
</web-app>
```

Output:

Name

Age



Welcome mrcetcse to this site

[back](#)



Name

Age



Hello cse, you are not authorized to visit the site

[back](#)

9 (iv) (b). A web application that lists all cookies stored in the browser on clicking “List Cookies” button. Add cookies if necessary.

AIM: To design an application to develop cookies using Servlet.

USING SERVLET**index.html**

```
<html>
<head>
    <title>CookiesExample</title>
```

```
</head>
<body>
  <form method='get' action='http://localhost:8080/MyServlet1/login'>
    <fieldset style="width:14%; background-color:#ccffcc">
      User Name:<input type="text" name="Name"/><br/>
      Password:<input type="password" name="Password"/><br/>
      <input type="submit" value="submit"/>
    </fieldset>
  </form>
</body>
</html>
```

MyServlet1.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class MyServlet1 extends HttpServlet
{
    public void doGet(HttpServletRequest request, HttpServletResponse response) {
        try{
            response.setContentType("text/html");
            PrintWriter pwriter = response.getWriter();

            String uname = request.getParameter("Name");
            String upassword = request.getParameter("Password");
            pwriter.print("Cookies Set:<br>Hello "+uname);
            pwriter.print("<br>Your Password is: "+upassword);

            //Creating two cookies
            Cookie c1=new Cookie("Name",uname);
            Cookie c2=new Cookie("Password",upassword);
            //Adding the cookies to response header
            response.addCookie(c1);
            response.addCookie(c2);
            pwriter.print("<br><a href='welcome'>LIST COOKIES</a>");
            pwriter.close();
        }catch(Exception exp){
            System.out.println(exp);
        }
    }
}
```

MyServlet2.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class MyServlet2 extends HttpServlet {
```

```
public void doGet(HttpServletRequest request,
    HttpServletResponse response){
    try{
        response.setContentType("text/html");
        PrintWriter pwriter = response.getWriter();

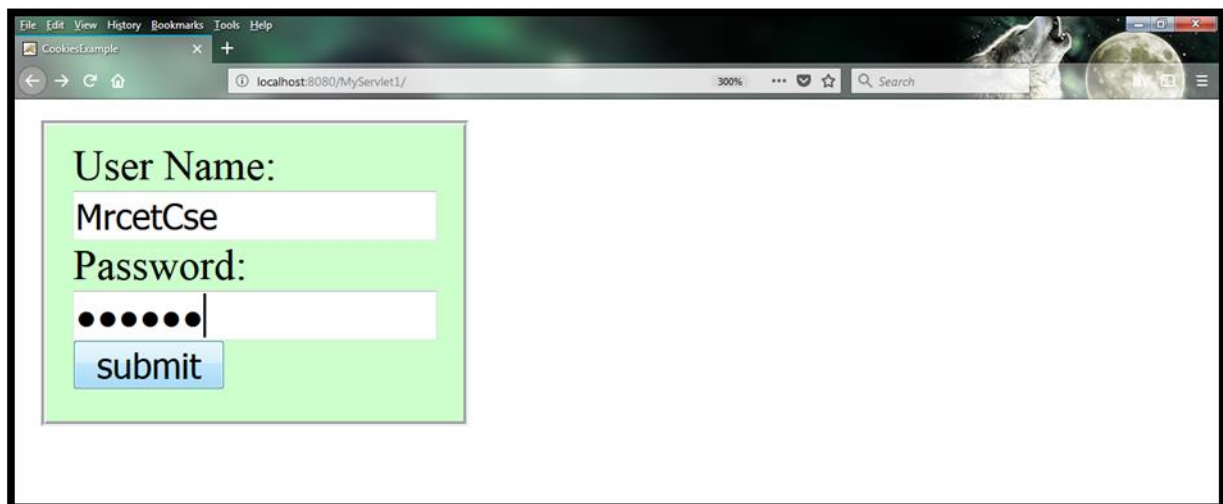
        //Reading cookies
        Cookie c[]=request.getCookies();
        //Displaying User name and User Password value from cookie

        for(int i=0;i<c.length;i++){

            pwriter.print("<br>" +c[i].getName()+": " +c[i].getValue()); //printing name and value of
            cookie
        }
        pwriter.close();
    }catch(Exception exp){
        System.out.println(exp);
    }
}
```

web.xml

```
<web-app>
<display-name>Cookies Example</display-name>
<welcome-file-list>
<welcome-file>index.html</welcome-file>
</welcome-file-list>
<servlet>
<servlet-name>Servlet1</servlet-name>
<servlet-class>MyServlet1</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>Servlet1</servlet-name>
<url-pattern>/login</url-pattern>
</servlet-mapping>
<servlet>
<servlet-name>Servlet2</servlet-name>
<servlet-class>MyServlet2</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>Servlet2</servlet-name>
<url-pattern>/welcome</url-pattern>
</servlet-mapping>
</web-app>
```


Output:

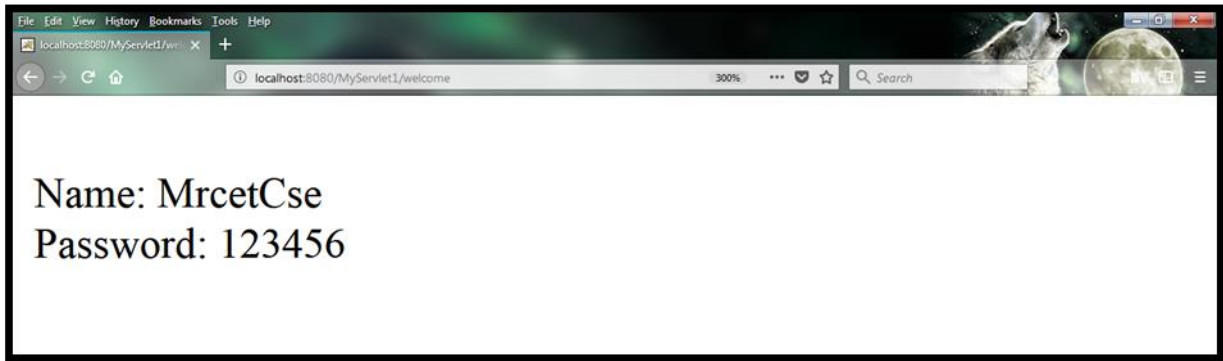
A screenshot of a web browser window. The address bar shows 'localhost:8080/MyServlet1/'. The page content is a login form with a light green background. It contains the following elements:

- 'User Name:' label followed by a text input field containing 'MrcetCse'.
- 'Password:' label followed by a password input field with 10 dots and a cursor at the end.
- A blue 'submit' button.



A screenshot of a web browser window. The address bar shows 'localhost:8080/MyServlet1/login?Name=MrcetCse&Password=123456'. The page content displays the following text:

- 'Cookies Set:'
- 'Hello MrcetCse'
- 'Your Password is: 123456'
- A purple underlined link: [LIST COOKIES](#)

**Assignment Evaluation****Signature**

0: Not Done

☐

1: Incomplete

☐

2: Late complete

☐

3: Needs improvement

☐

4: Complete

☐

5: Well Done

☐Signature of the
instructor

Date:

Week 10:**WEEK - 10: Implement the web applications with Database using
(a) PHP, (b) Servlets**

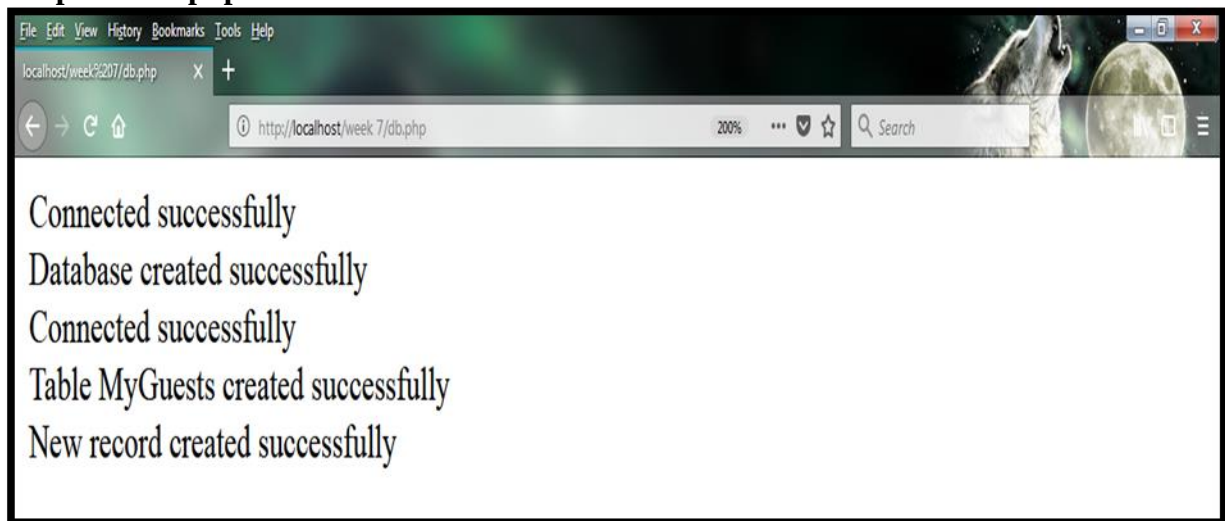
a) A user validation web application, where the user submits the login name & password to the server. The name and password are checked against the data already available in Database and if the data matches, a successful login page is returned. Otherwise failure message is shown to the user.

AIM: To design an application that verifies user details from database using PHP.

PROGRAM:**db.php**

```
<html>
<body>
<?php
$servername="localhost";
$username="root";
$password="TIGER";
$conn=new mysqli($servername,$username,$password);
if($conn->connect_error)
{
die("connection failed".$conn->connect_error);
}
echo "Connected successfully <br>";
//Create database
$sql = "CREATE DATABASE reg";
if(mysqli_query($conn,$sql))
echo "Database created successfully<br>";
else
echo "error";
$servername="localhost";
$dbname="reg";
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn)
{
die("Connection failed: " . mysqli_connect_error());
}
echo "Connected successfully <br>";
// sql to create table
$sql = "CREATE TABLE Guests (
name VARCHAR(30) NOT NULL,
pwd VARCHAR(30) NOT NULL)";
if (mysqli_query($conn, $sql))
{
echo "Table MyGuests created successfully<br>";
```

```
}  
else {  
  
echo "Error creating table: " . mysqli_error($conn);  
}  
$sql = "INSERT INTO Guests (name, pwd) VALUES ('cse', '5')";  
if (mysqli_query($conn, $sql)) {  
echo "New record created successfully";  
}  
else  
{  
echo "Error: " . $sql . "<br>" . mysqli_error($conn);  
}  
mysqli_close($conn);  
?>  
</body>  
</html>
```

Output of db.php:**Login.html**

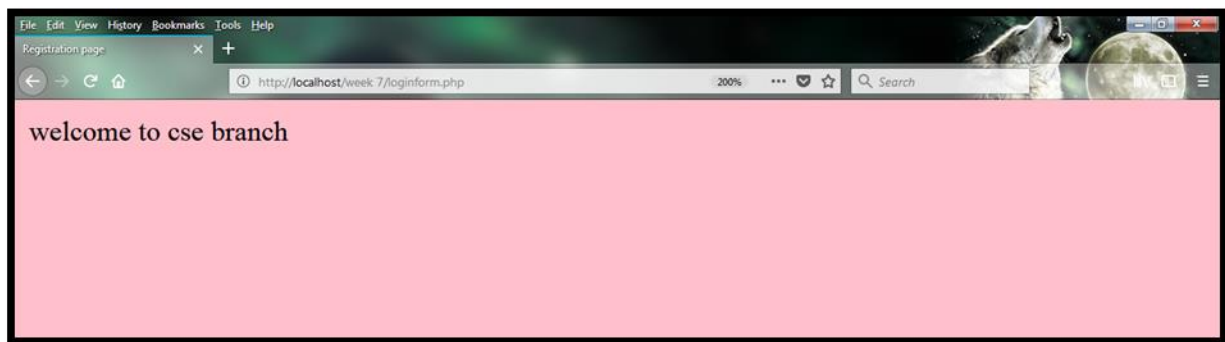
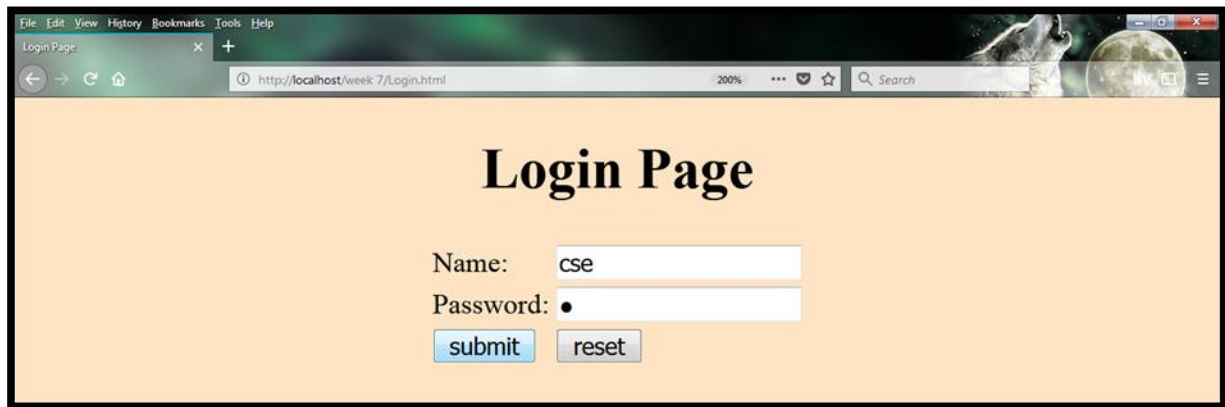
```
<html>  
<head> <title> Login Page </title> </head>  
<body>  
<center> <h1> Login Page </h1>  
<form action="loginform.php" method="post">  
<table>  
<tr> <td> <label> Name: </label> </td>  
<td> <input type="text" name="uname" /> </td>  
</tr>  
<tr> <td> <label> Password: </label> </td>  
<td> <input type="password" name="upwd" /> </td>  
</tr>
```

```
<tr> <td> <input type="submit" value="submit" /> </td>
<td> <input type="reset" value="reset" /> </td>
</tr>
</table>
</form>

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

loginform.php

```
<html>
<head> <title> Registration page </title> </head>
<body>
  <?php
    $name=$_POST["uname"];
    $pwd=$_POST["upwd"];
    $conn=mysql_connect("localhost","root","TIGER") or die("mysql_error()");
    mysql_select_db("reg") or die("mysql_error()");
    $query=mysql_query("SELECT * from guests where name='$name'");
    while($row=mysql_fetch_array($query))
    {
      $duser=$row['name'];
      $dpwd=$row['pwd'];
    }
    if($pwd==$dpwd && $name==$duser)
      echo "welcome $name branch";
    else
      echo "invalid user";
  ?>
</body>
</html>
```

OUTPUT:**(b) USING SERVLET****DBExample.java**

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

public class DBExample extends HttpServlet{

    public void doGet(HttpServletRequest request,
        HttpServletResponse response)
        throws ServletException, IOException
    {
        String JDBC_DRIVER="com.mysql.jdbc.Driver";
        String DB_URL="jdbc:mysql://localhost/csec";
        String USER = "root";
        String PASS = "TIGER";
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
    }
}
```

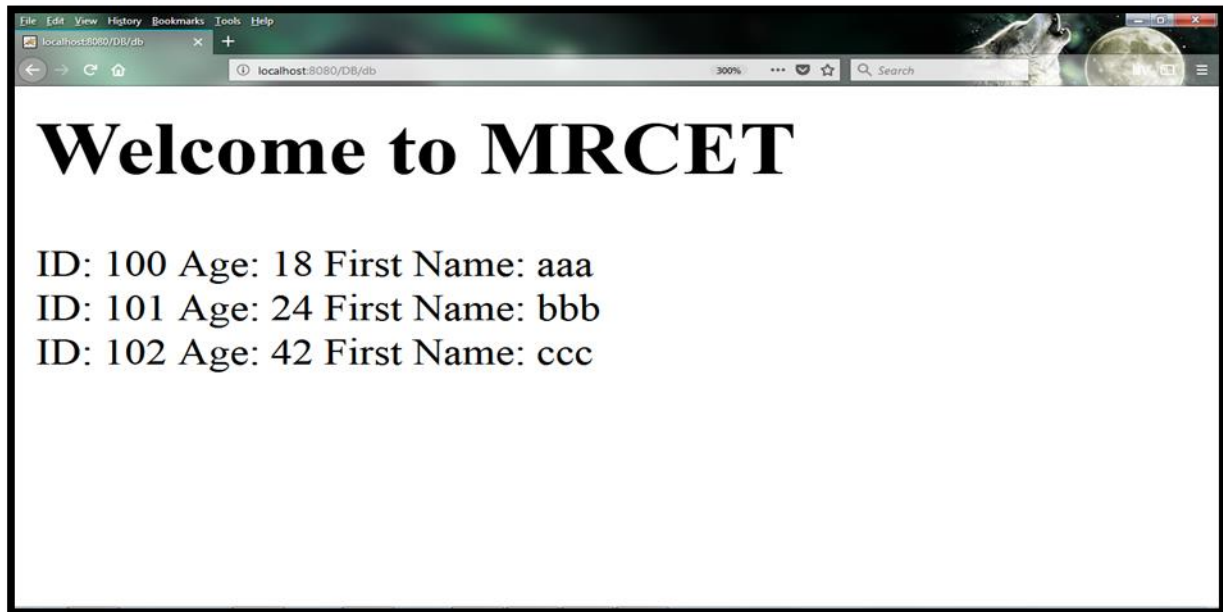
```
out.println("<html><body><h1>Welcome to MRCET</h1>\n") ;
try{
    Class.forName("com.mysql.jdbc.Driver");
    Connection conn = DriverManager.getConnection(DB_URL,
    USER, PASS);
    Statement stmt = conn.createStatement();
    String sql;
    sql = "SELECT * FROM Emp";
    ResultSet rs = stmt.executeQuery(sql);
    while(rs.next()){
        out.println("ID: " + rs.getString(1));
        out.println("Age: " + rs.getString(2));
        out.println("First Name: " + rs.getString(3)+"<br>");
    }
    rs.close();
    stmt.close();
    conn.close();

} catch(SQLException se){
    out.println(se.getMessage());
} catch(Exception e){
    out.println(e.getMessage());
}
out.println("</body></html>");
}
```

web.xml:

```
<?xml version="1.0" encoding="UTF-8"?>

<web-app>
<servlet>
<servlet-name>DBExample</servlet-name>
<servlet-class>DBExample</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>DBExample</servlet-name>
<url-pattern>/db</url-pattern>
</servlet-mapping>
</web-app>
```

OUTPUT:**Assignment Evaluation****Signature**

0: Not Done

☐

1: Incomplete

☐

2: Late complete

☐

3: Needs improvement

☐

4: Complete

☐

5: Well Done

☐Signature of the
instructor

Date:

Week 11 (i) Write a JSP application to print the current date and time.

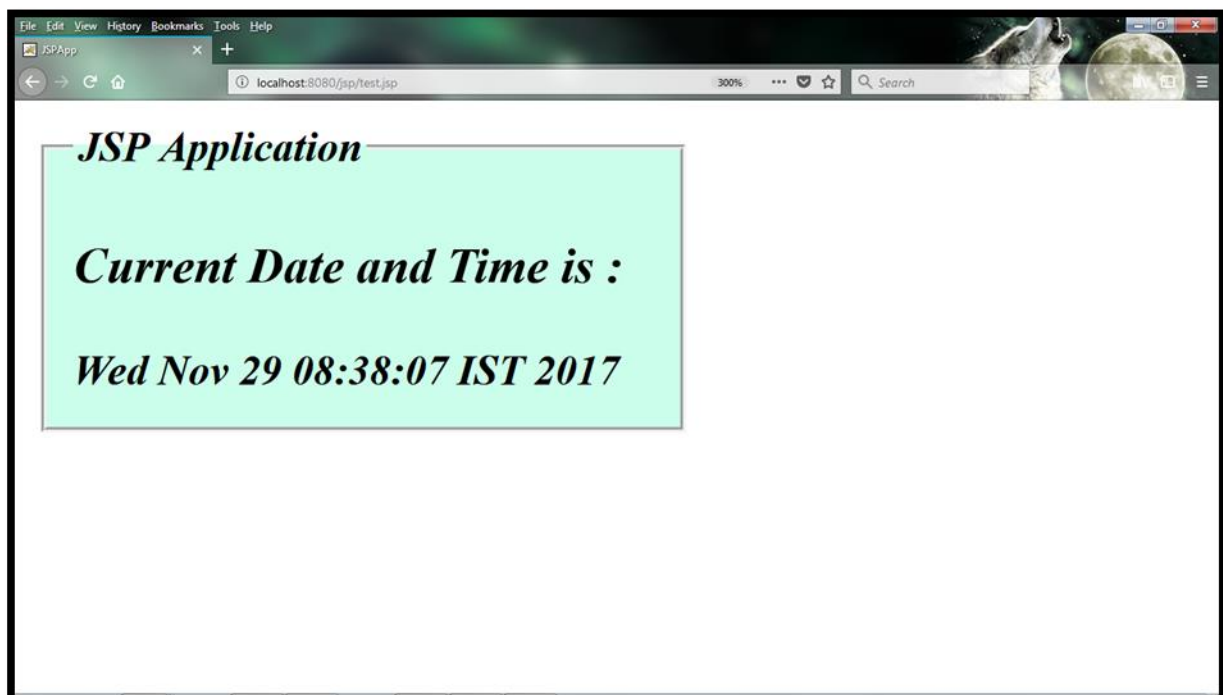
Aim: To print Current date and time using JSP.

USING JSP

test.jsp

```
<html>
<head><title>JSPApp</title></head>
<body>
  <form>
    <fieldset style="width:50%; background-color: #ccffeb;">
      <legend><b><i>JSP Application</i><b></legend>
      <h3>Current Date and Time is :</h3>
      <% java.util.Date d = new java.util.Date();
        out.println(d.toString()); %>
    </fieldset>
  </form>
</body>
</html>
```

Output:



(ii) A web application that takes name and age from an HTML page. If the age is less than 18, it should send a page with “Hello <name>, you are not authorized to visit the site” message, where <name> should be replaced with the entered name. Otherwise it should send “Welcome <name> to this site” message.

AIM: To design an application to validate age are less than 18 or more than 18 using JSP.

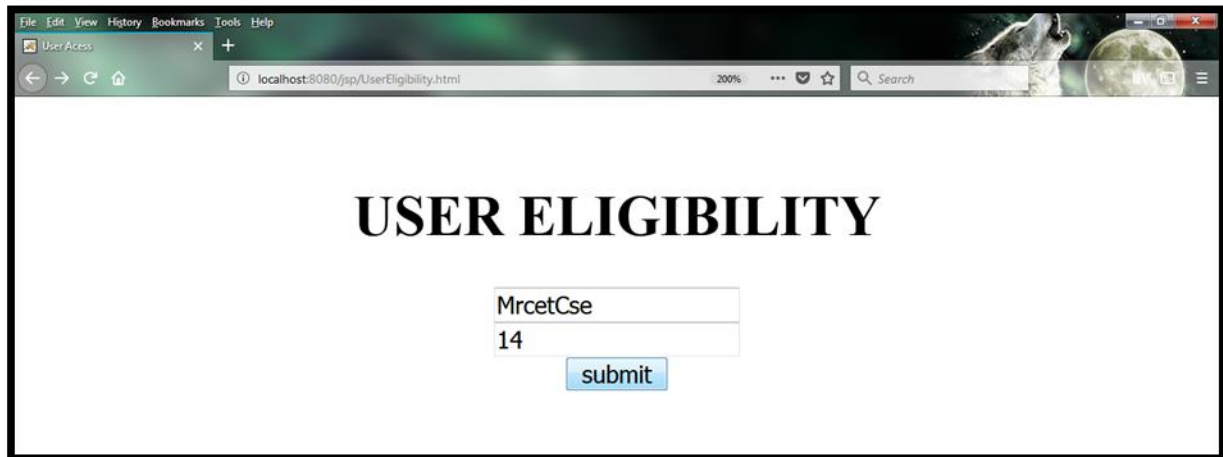
USING JSP

UserEligibility.html:

```
<html>
<head> <title> User Access </title> </head>
<body> <br>
<center>
<h1> USER ELIGIBILITY </h1>
<form action="http://localhost:8080/jsp/checkage.jsp" method="get">
<input type="text" name="uname" placeholder="Enter your name"> <br>
<input type="text" name="uage" placeholder="Enter your age"> <br>
<input type="submit" value="submit" name="sub">
</form>
</center>
</body>
</html>
```

checkage.jsp:

```
<%@page language="java" import="java.sql.*" errorPage=""%>
<%
String name;
int age;
name=request.getParameter("uname");
age=Integer.parseInt(request.getParameter("uage"));
if(age<=18)
{
out.println("<h1> Hello\t " +name+"\t you are not eligible </h1>");
}
else
{
out.println("<h1> Welcome " +name+" to this site </h1>");
}
%>
```

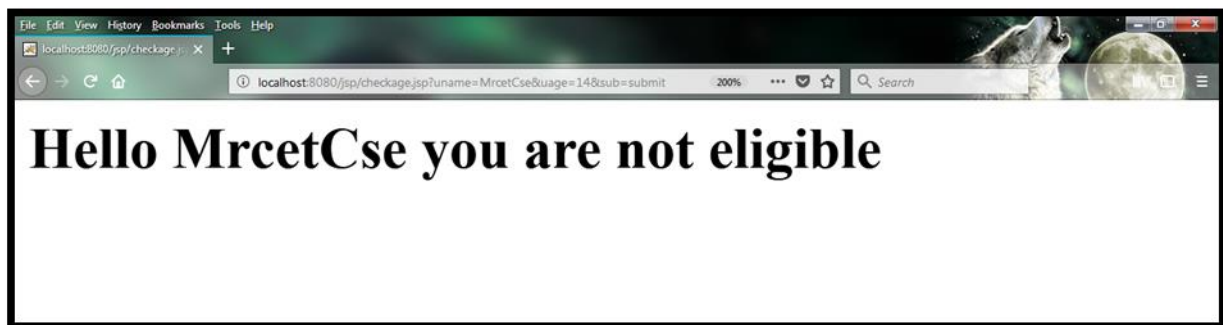
Output:

USER ELIGIBILITY

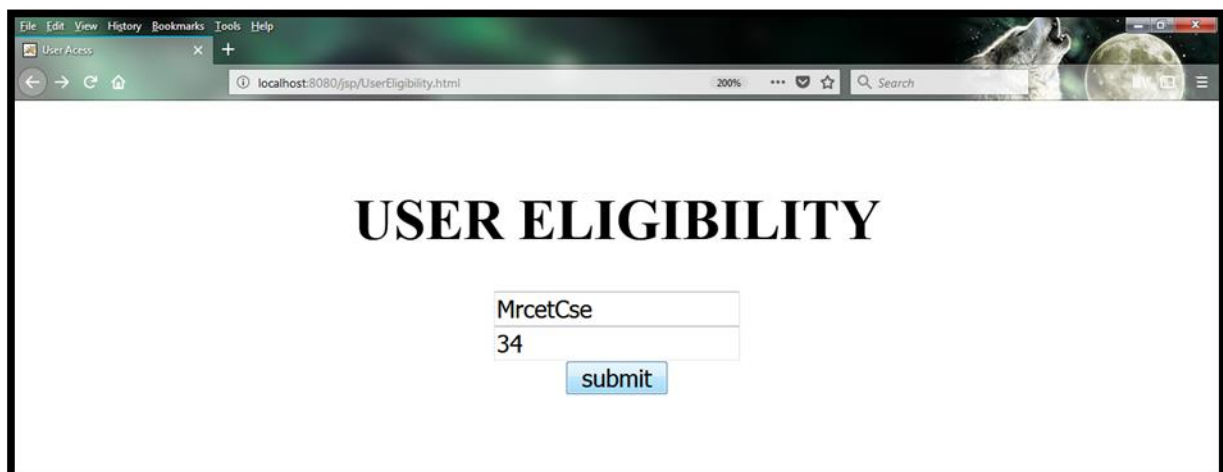
MrcetCse

14

submit



Hello MrcetCse you are not eligible



USER ELIGIBILITY

MrcetCse

34

submit



(iii) write a program for deploying Java beans in jsp page.

Create a simple visual bean with a area filled with a color.

The shape of the area depends on the property shape. If it is set to true then the shape of the area is Square

and it is Circle, if it is false.

The color of the area should be changed dynamically for every mouse click. The color should also be changed if we change the color in the “property window “.

Save as **colors.java**

```
import java.io.*;
import java.awt.*;
import java.awt.event.*;
public class colors extends Canvas
{
    public boolean square;

    public Color color;
    public colors()
    {
```

```
addMouseListener(new MouseAdapter()
{
    public void mouseClicked(MouseEvent me)
    {
        change();
    }
});

square=true;
setSize(200,200);

change();
}
public void change()
{
    color = random();
    repaint();
}
public Color getColor()
{
    return color;
}
public void setColor(Color color)
{
    this.color=color;
}
private Color random()
{
```

```
int red = (int)(255*Math.random());

int green = (int)(255*Math.random());
int blue = (int)(255*Math.random());
return new Color(red,green,blue);

}

public boolean isSquare()
{
return square;
}

public void setSquare(boolean square)
{
this.square=square;
repaint();
}

public void paint(Graphics g)
{
if(square)
{
g.setColor(color);

//g.drawRect(10,10,160,160);
g.fillRect(10,10,180,180);
}
else
{

```

```
g.setColor(color);  
//g.drawOval(10,10,160,160);  
g.fillOval(10,10,180,180);  
}  
  
}  
  
}
```

Save as **colors.mft**

Name: colors.class

Java-Bean: True

Create a jar file

```
jar cmfv colors.jar colors.mft colors.class  
colors$1.class Now jar file has been created.
```

Go to

C:\beans\beanbox>run *[press enter]*

Opens four dialogue boxes **toolbox,**

beanbox,

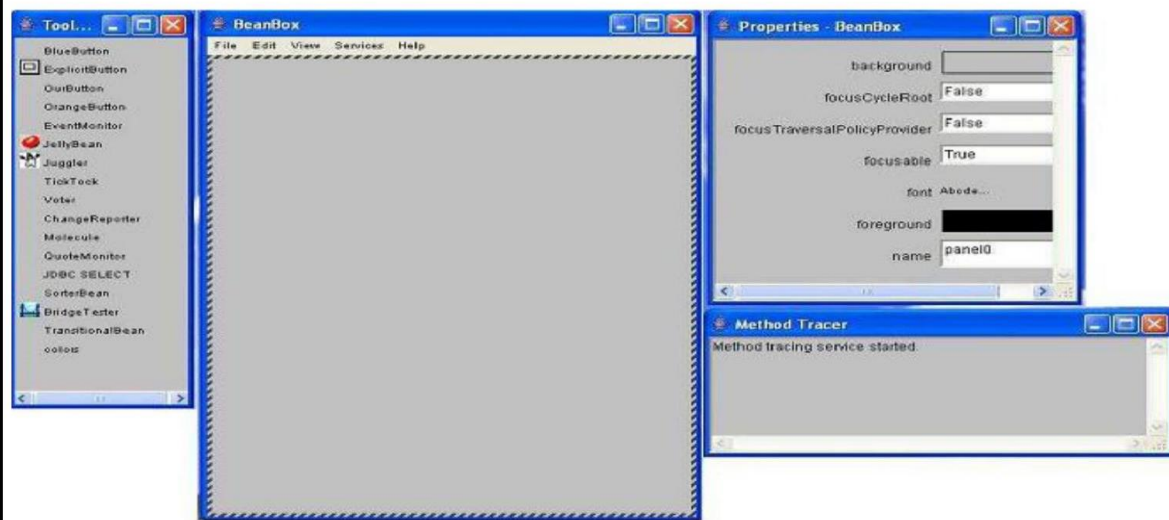
properties window,

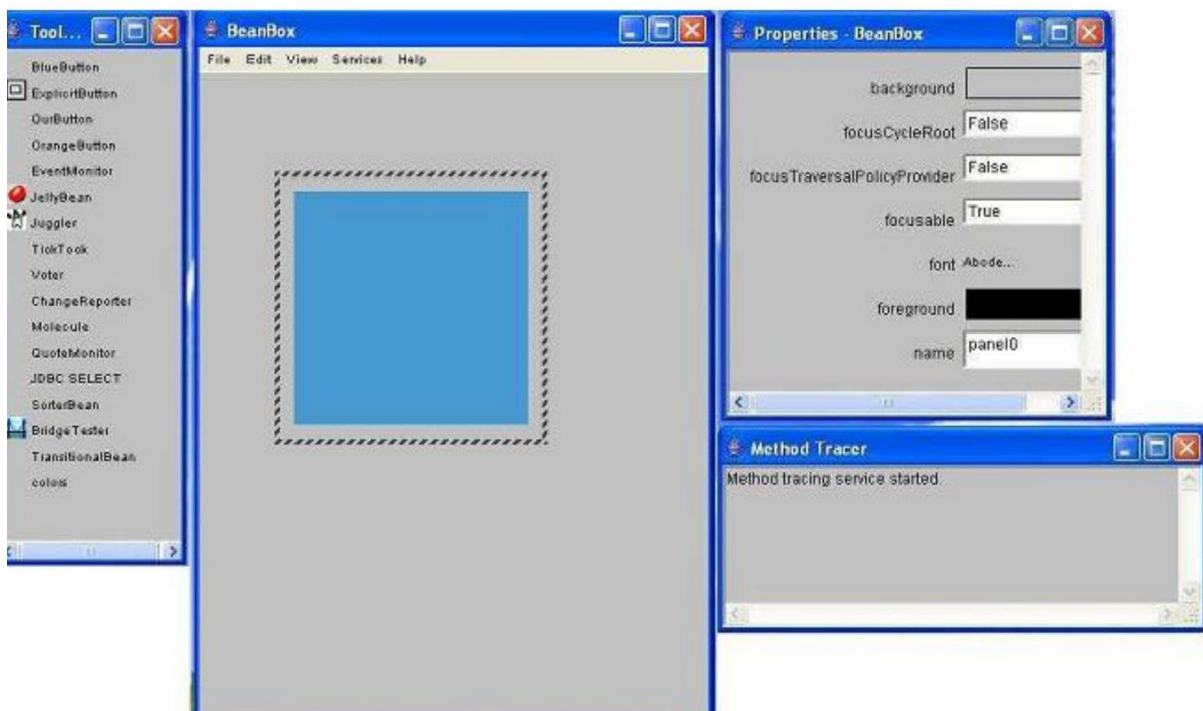
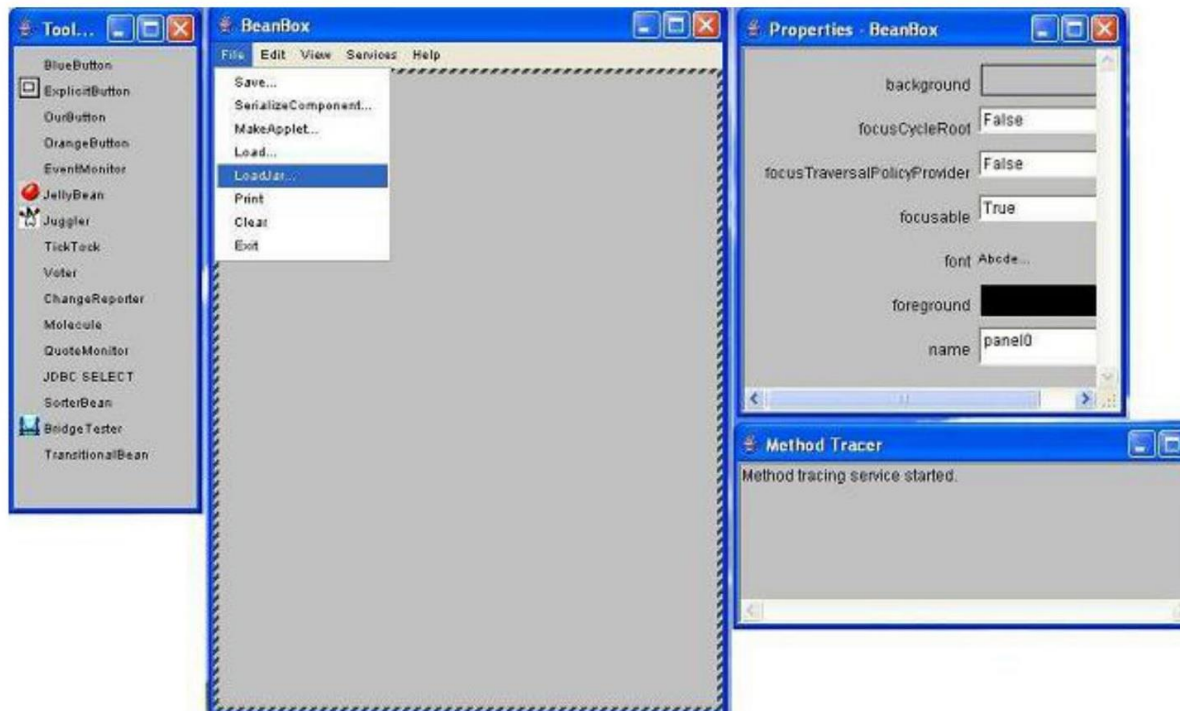
method tracer

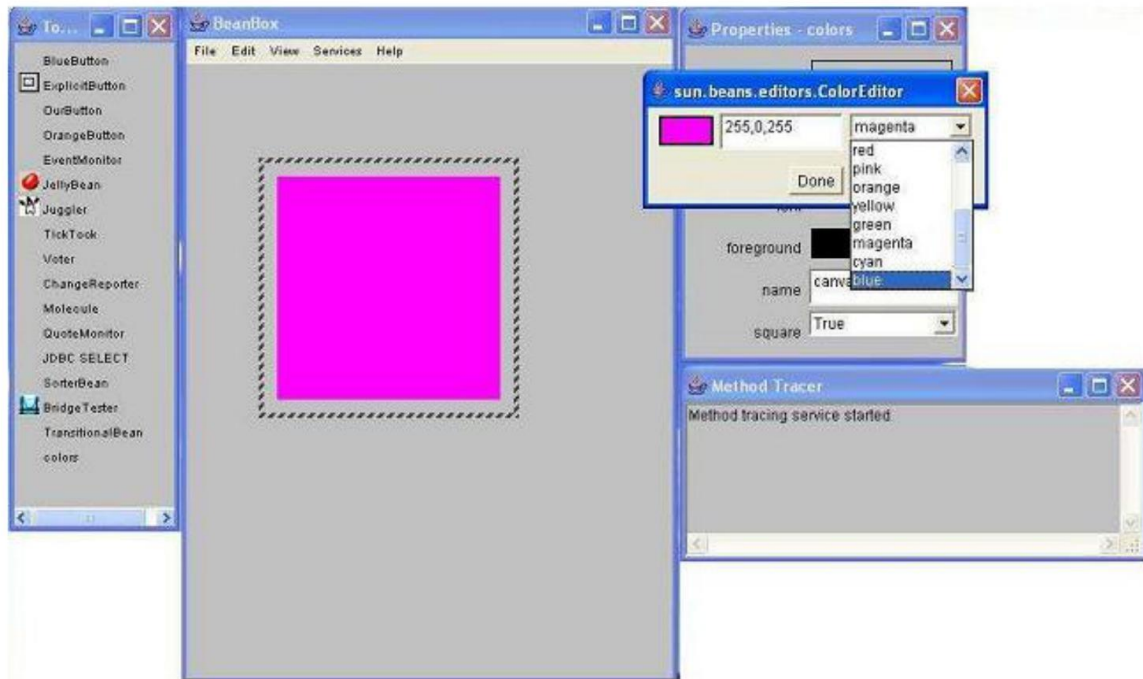
Goto file->Loadjar *[load the jar colors.jar]*

In the **toolbox** you can observe colors bean, select the colors the bean and place on the beanbox
Click the shape of the area, you can observe the color changing dynamically for every mouse click

In the property window change the property square [True / False] observe the shape changes to square when its is True and shape changes to circle when it is False





**Assignment Evaluation****Signature**

0: Not Done

1: Incomplete

2: Late complete

3: Needs improvement

4: Complete

5: Well Done

Signature of the
instructor

Date:

WEEK - 12:

Write a program to design a simple calculator using (a) JavaScript (b) PHP (c) Servlet and (d) JSP.

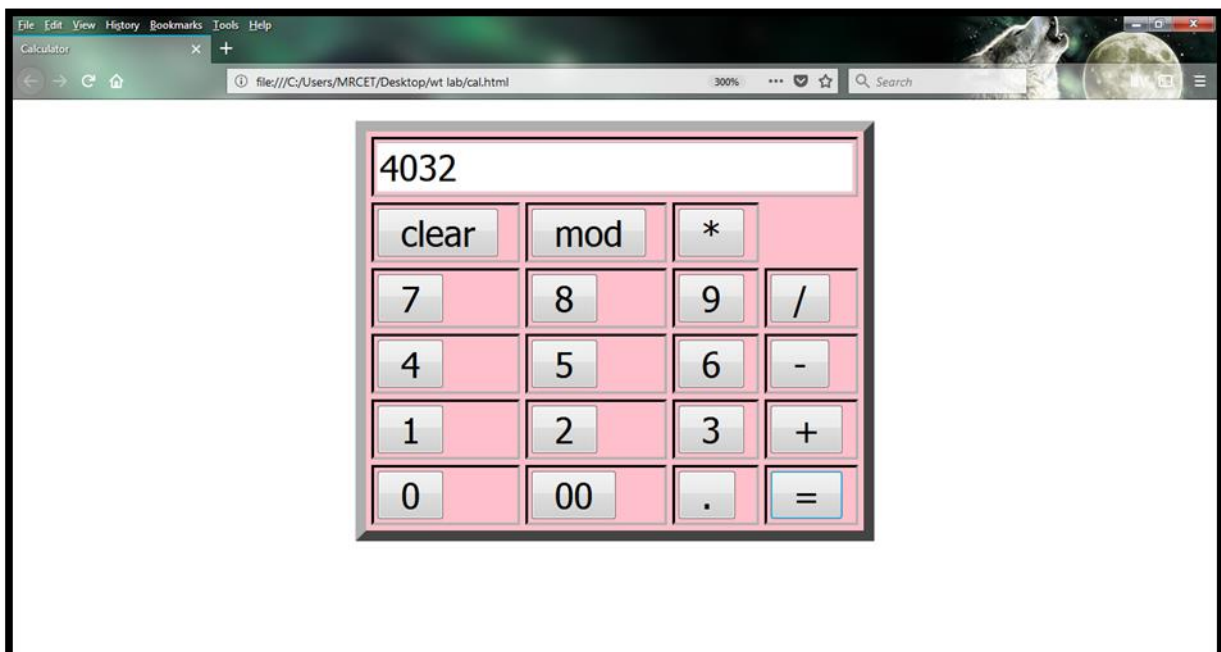
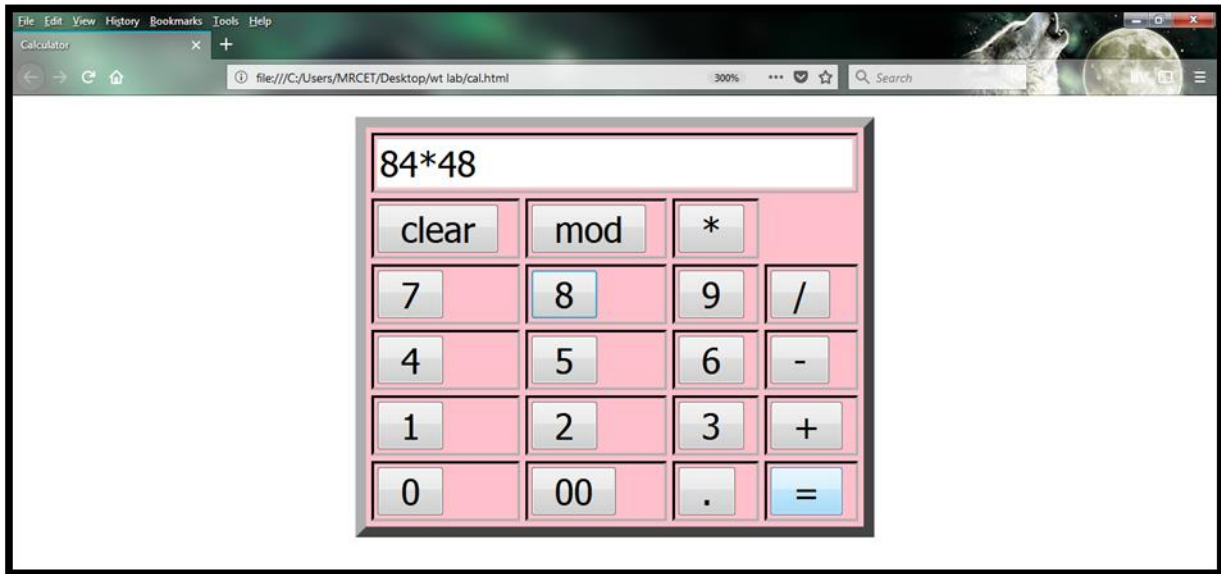
(a) USING JavaScript

AIM: To design a simple calculator using JAVASCRIPT.

PROGRAM:**cal.html**

```
<html>
<head>
  <title>Calculator</title>
  <script language="javascript">
    var inputstring="";
    function updatestring(value)
    {
      inputstring=inputstring+value;
      document.calculator.input.value=inputstring;
    }
  </script>
</head>
<body>
  <form name="calculator">
    <table border="4" align="center" bgcolor="pink" bordercolor="black">
      <tr>
        <td colspan="4"><input type="text" name="input" maxlength="15" size="27"></td> </tr>
      <tr>
        <td><input type="button" value="clear" onclick="input.value='';inputstring=' '></td>
        <td><input type="button" value="mod" onclick="updatestring('%)"></td>
        <td><input type="button" value="*" onclick="updatestring('*)"> </td> </tr>
      <tr>
        <td><input type="button" value="7" onclick="updatestring('7)"> </td>
        <td><input type="button" value="8" onclick="updatestring('8)"> </td>
        <td><input type="button" value="9" onclick="updatestring('9)"> </td>
        <td><input type="button" value="/" onclick="updatestring('/')"> </td> </tr>
      <tr>
        <td><input type="button" value="4" onclick="updatestring('4)"> </td>
        <td><input type="button" value="5" onclick="updatestring('5)"> </td>
        <td><input type="button" value="6" onclick="updatestring('6)"> </td>
        <td><input type="button" value="-" onclick="updatestring('-)"> </td> </tr>
      <tr>
        <td><input type="button" value="1" onclick="updatestring('1)"> </td>
        <td><input type="button" value="2" onclick="updatestring('2)"> </td>
        <td><input type="button" value="3" onclick="updatestring('3)"> </td>
        <td><input type="button" value="+" onclick="updatestring('+)"> </td> </tr>
      <tr>
        <td><input type="button" value="0" onclick="updatestring('0)"> </td>
```

```
<td><input type="button" value="00" onclick="updatestring('00')"> </td>  
<td><input type="button" value="." onclick="updatestring('.')"> </td>  
<td><input type="button" value="=" onclick="input.value=eval(inputstring);"> </td> </tr>  
  
</table>      </form>      </body>      </html>
```

OUTPUT:

(b) USING PHP

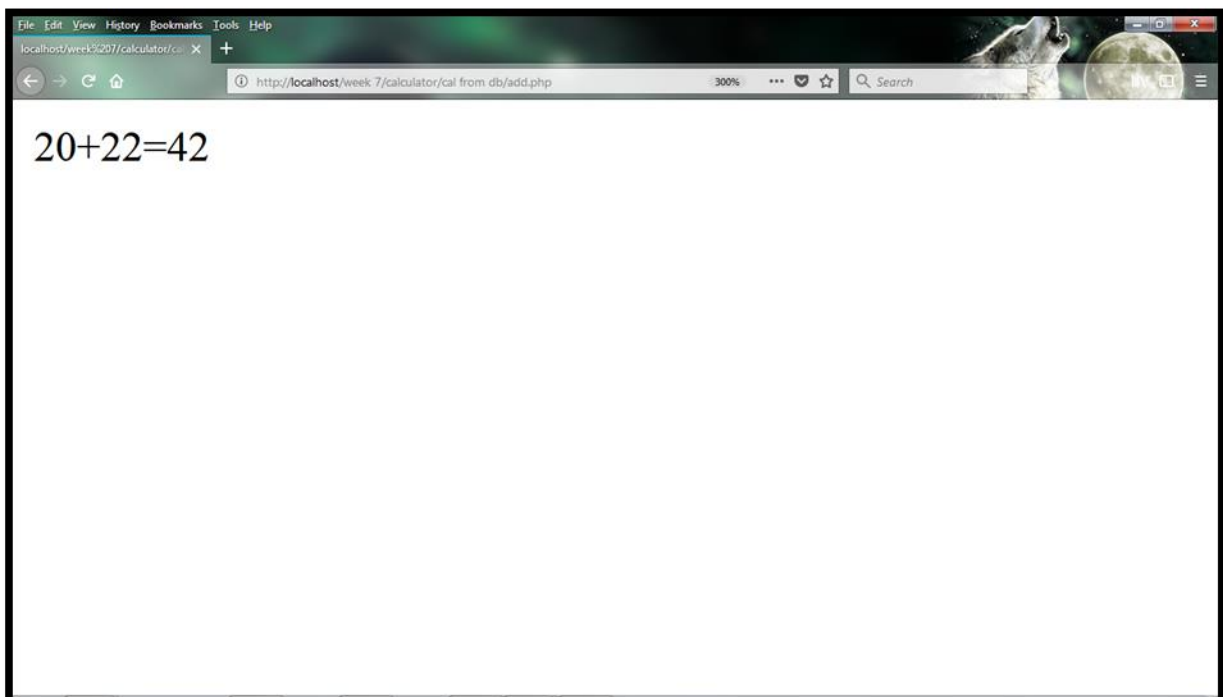
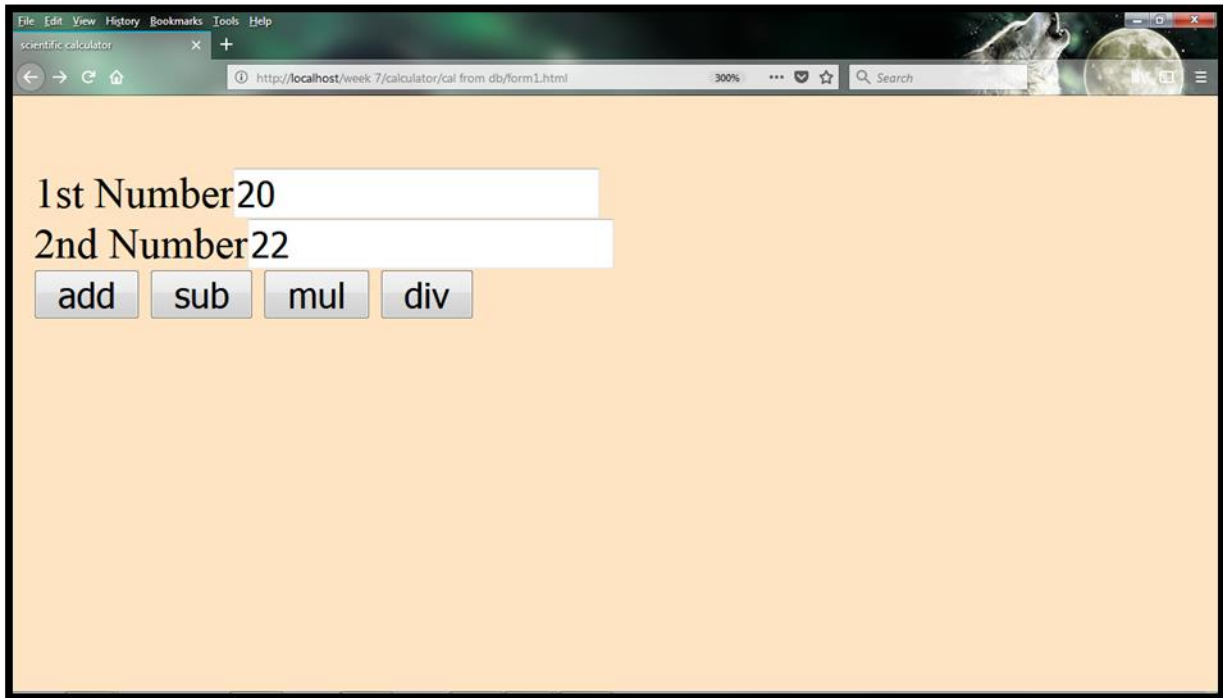
AIM: To design an application that works as a simple calculator using PHP.

PROGRAM:**form.html**

```
<html>
<head> <title> scientific calculator </title> </head>
<body bgcolor="bisque"> <br>
<form name='f1' action='add.php' method='post'>
1st Number<input type='text' name='t1'><br>
2nd Number<input type='text' name='t2'><br>
<input type='submit' name='add' value='add'>
<input type='submit' name='sub' value='sub'>
<input type='submit' name='mul' value='mul'>
<input type='submit' name='div' value='div'>
</form>
</body>
</html>
```

add.php

```
<?php
$a = $_POST['t1'];
$b = $_POST['t2'];
if (isset($_POST['add']))
{
$c = $a + $b;
print $a . "+" . $b . "=" . $c;
}
if (isset($_POST['sub']))
{
$c = $a - $b;
print $a . "-" . $b . "=" . $c;
}
if (isset($_POST['mul']))
{
$c = $a * $b;
print $a . "*" . $b . "=" . $c;
}
if (isset($_POST['div']))
{
$c = $a / $b;
print $a . "/" . $b . "=" . $c;
}?>
```

Output:

(c) USING SERVLETS

AIM: Develop Servlet Application of Basic Calculator(+,-,*,/,%) using ServletInputStream and ServletOutputStream.

DESCRIPTION:

In java with using 2 operand's and 1 operator we can calculate the basic mathematically operation such as addition, subtraction, multiplication, division Servlet is a Java class which extends the capabilities of server that provides the application accessed by means of request response model. It uses two interfaces i.e. HttpServletRequest & HttpServletResponse

HttpServletRequest: This is an interface which provides methods for extracting HTTP parameters from the query or request body depending on the type of request i.e. get or post

HttpServletResponse: This interface provides an OutputStream for retrieving information such as images or PrintWriter for retrieving text output.

PROGRAM:

index.html

```
<html>
<head>
  <title>Simple Calculator</title>
</head>
<body>
<h3>Please Enter Two Numbers :::</h3>
<form method="GET" action="http://localhost:8080/Cal/calc">
Number:<input type="text" id="t1" name="t1"/><br/>
<select name="op">
<option value="+">+</option>
<option value="-">-</option>
<option value="*">*</option>
<option value="/">/</option>
<option value="%">%</option>
</select><br/>
Number:<input type="text" id="t2" name="t2">
<input type="submit" value="calculate"/><br/>
</form>
</body>
</html>
```

Cal.java

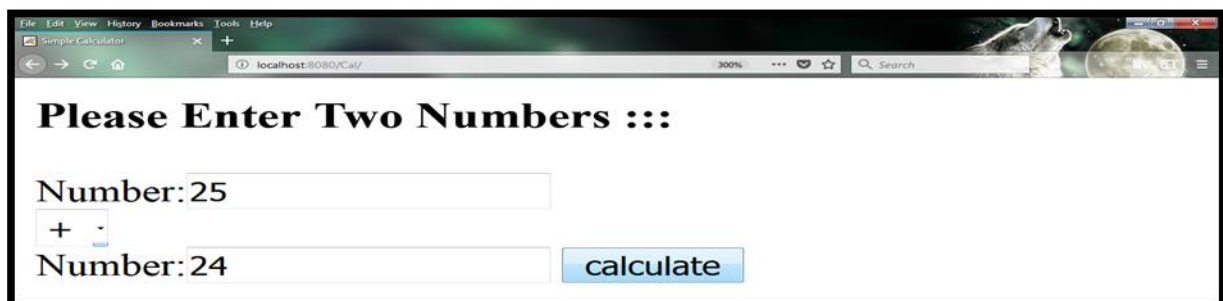
```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
```

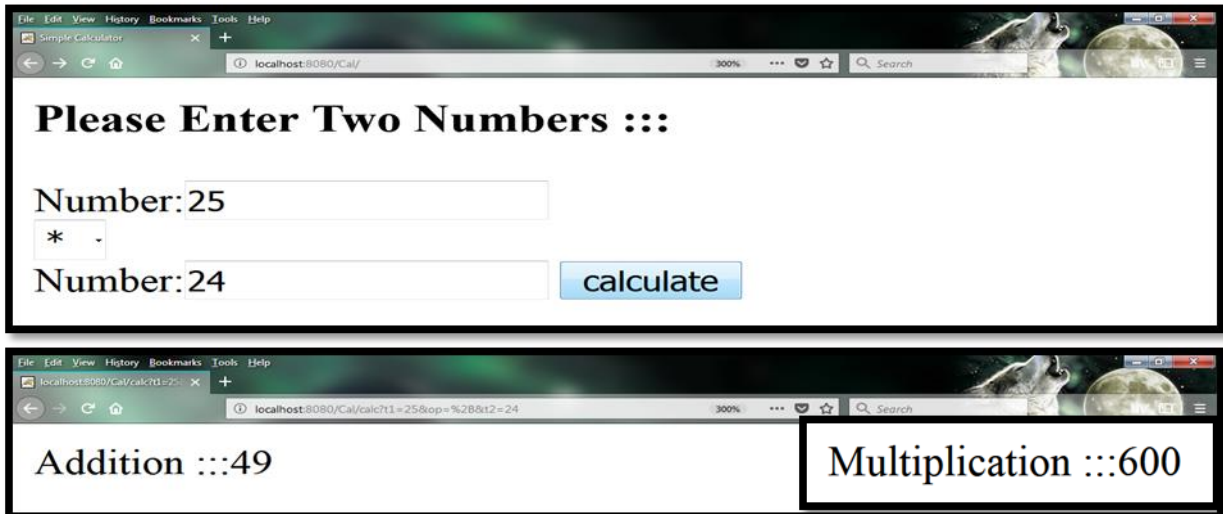
```
import javax.servlet.http.HttpServletResponse;

public class Cal extends HttpServlet
{
    public void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter pw= response.getWriter();
        int n1 = Integer.parseInt(request.getParameter("t1"));
        int n2 = Integer.parseInt(request.getParameter("t2"));
        String op=request.getParameter("op");
        if(op.equals("+")){pw.println("Addition :::"+(n1+n2));}
        else if(op.equals("-")){pw.println("Subtraction :::"+(n1-n2));}
        else if(op.equals("*")){pw.println("Multiplication :::"+(n1*n2));}
        else if(op.equals("/")){pw.println("Division :::"+(n1/n2));}
        else{pw.println("Remainder :::"+(n1%n2));}
        pw.close();
    }
}
```

web.xml

```
<web-app>
<servlet>
    <servlet-name>Cal</servlet-name>
    <servlet-class>Cal</servlet-class>
</servlet>
<servlet-mapping>
    <servlet-name>Cal</servlet-name>
    <url-pattern>/calc</url-pattern>
</servlet-mapping>
</web-app>
```

Output:



(d) USING JSP

Aim: To design a calculator using JSP.

calculator.html

```
<html>
<title>calculator</title>
<head><h1><center>Basic Calculator</center></h1></head>
<body>
<center>
<form action="http://localhost:8080/jsp/calculator.jsp" method="get">

<label for="num1"><b>Number 1</b></label>
<input type="text" name="num1"><br><br>
<label for="num2"><b>Number 2</b></label>
<input type="text" name="num2"><br><br>

<input type="radio" name="r1" value="Add">+
<input type="radio" name="r1" value="Sub">-<br>
<input type="radio" name="r1" value="mul">*
<input type="radio" name="r1" value="div">/<br><br>

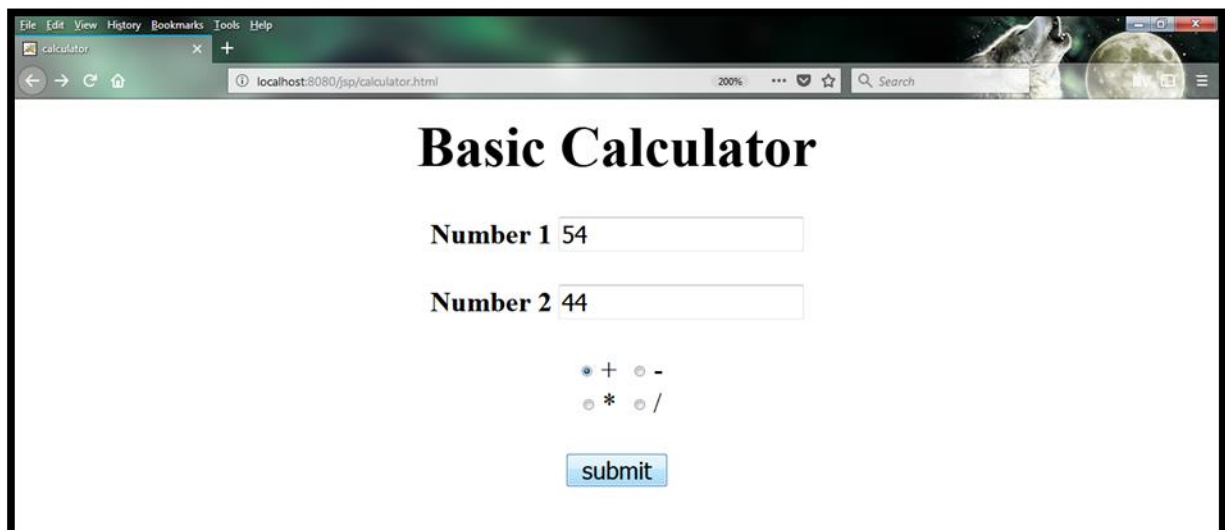
<input type="submit" value="submit">
</center>
</body>
</html>
```

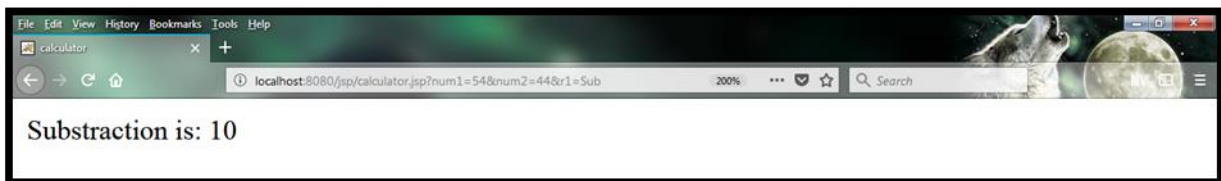
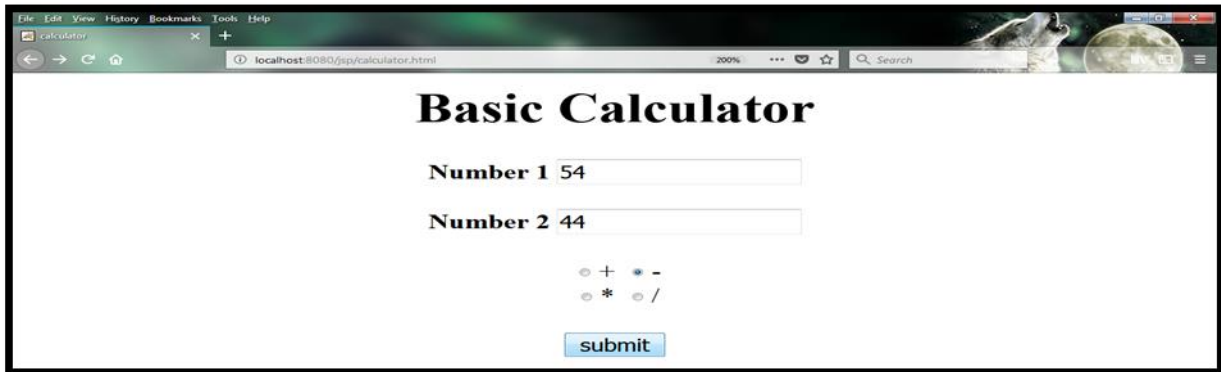
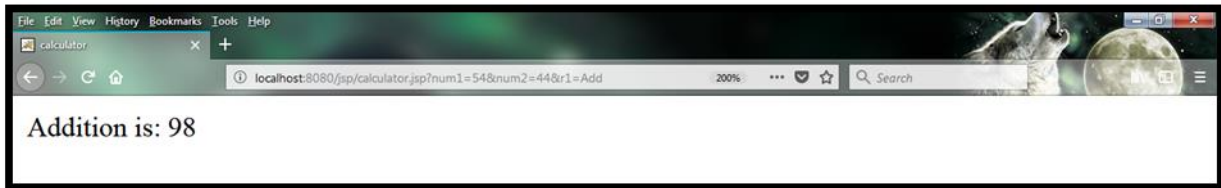
calculator.jsp

```
<html>
<title>calculator</title>
<head></head>
```

```
<body>
<%@page language="java"%>
<%
int num1 = Integer.parseInt(request.getParameter("num1"));
int num2 = Integer.parseInt(request.getParameter("num2"));
String operation = request.getParameter("r1");
if(operation.equals("Add")){
int add=num1+num2;
out.println("Addition is: "+add);
}
else if(operation.equals("Sub")){
int sub=num1-num2;
out.println("Substraction is: "+sub);
}
else if(operation.equals("mul")){

int mul=num1*num2;
out.println("multiplication is: "+mul);
}
else if(operation.equals("div"))
{
int div = num1/num2;
if(num1>=num2)
out.println("division is: "+div);
else
out.println("The division cannot be performed");
}
}%>
</body>
</html>
```

OUTPUT:

**Assignment Evaluation****Signature**

0: Not Done

☐

1: Incomplete

☐

2: Late complete

☐

3: Needs improvement

☐

4: Complete

☐

5: Well Done

☐Signature of the
instructor

Date: