

WEB TECHNOLOGIES

LABORATORY MANUAL

**B.TECH
(III YEAR – II SEM)
(2018-19)**



**DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING**

**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 COMPUTER SCIENCE AND ENGINEERING

Vision

- To acknowledge quality education and instill high patterns of discipline making the students technologically superior and ethically strong which involves the improvement in the quality of life in human race.

Mission

- To achieve and impart holistic technical education using the best of infrastructure, outstanding technical and teaching expertise to establish the students into competent and confident engineers.
- Evolving the center of excellence through creative and innovative teaching learning practices for promoting academic achievement to produce internationally accepted competitive and world class professionals.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO1 – ANALYTICAL SKILLS

1. 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

2. 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

3. 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 Computer Science and Engineering, 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 will be able to:

- 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.



MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
Maisammaguda, Dhulapally Post, Via Hakimpet, Secunderabad – 500100

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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.

Head of the Department

Principal

Objectives:

- To develop an ability to design and implement static and dynamic website
- Choose best technologies for solving web client/server problems
- Create conforming web pages
- Use JavaScript for dynamic effects
- To prepare PHP scripts
- Use JavaScript & PHP to validate form input entry
- Understand, analyze and create XML documents and XML Schema
- Understand, analyze and build web applications using PHP
- Use appropriate client-side or Server-side applications
- Handling Cookies and Sessions using PHP, SERVLETS and JSP
- Manage normal and abnormal interactions with databases using JDBC.

Outcomes:

Upon successful completion of this course, the students will be able to:

- Design and implement dynamic websites with good aesthetic sense of designing and latest technical know-how's
- Create web pages using HTML and Cascading Styles sheets
- Analyze a web page and identify its elements and attributes
- Create dynamic web pages using JavaScript
- Build web applications using PHP
- Create XML documents and XML Schema
- Understand, analyze and apply the role of languages like HTML, CSS, XML, JavaScript, PHP, SERVLETS, JSP and protocols in the workings of the web and web applications
- Have a Good grounding of Web Application Terminologies, Internet Tools, E – Commerce and other web services
- Develop interactive web applications using HTML forms and servlets.
- Use request and response objects provided to a servlet to read parameters and to produce an HTML response.
- Develop JSP applications implementing Session management and Data base Connectivity.

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1	<p>Design the following static web pages required for an online book store web site.</p> <p>1) HOME PAGE: The static home page must contain three frames.</p> <p>2) LOGIN PAGE</p> <p>3) CATALOGUE PAGE: The catalogue page should contain the details of all the books available in the web site in a table.</p> <p>4) REGISTRATION PAGE</p>	1-8
2	<p>Write JavaScript to validate the following fields of the Registration page.</p> <ol style="list-style-type: none"> 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). 	9-14
3	Develop and demonstrate the usage of inline, internal and external style sheet using CSS	15-17
4	<p>Develop and demonstrate JavaScript with POP-UP boxes and functions for the following problems:</p> <p>a) Input: Click on Display Date button using onclick() function Output: Display date in the textbox</p> <p>b) Input: A number n obtained using prompt Output: Factorial of n number using alert</p> <p>c) Input: A number n obtained using prompt Output: A multiplication table of numbers from 1 to 10 of n using alert</p> <p>d) Input: A number n obtained using prompt and add another number using confirm Output: Sum of the entire n numbers using alert</p>	18-21
5	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).	22

6	Write an HTML page including any required JavaScript that takes a number from text field in the range of 0 to 999 and shows it in words. It should not accept four and above digits, alphabets and special characters.	23-24
7	Develop and demonstrate PHP Script for the following problems: a) Write a PHP Script to find out the Sum of the Individual Digits. b) Write a PHP Script to check whether the given number is Palindrome or not	25-26
8	Create an XML document that contains 10 users information. Write a Java Program, which takes User Id as input and returns the user details by taking the user information from XML document using DOM parser or SAX parser.	27-29
9	Implement the following web applications using (a) PHP (b) Servlets (c) JSP	30-35 36-44 45-51
	<p>i A web application that takes a name as input and on submit it shows a hello <name> page where name is taken from the request. It shows the start time at the right top corner of the page and provides a logout button. On clicking this button, it should show a logout page with Thank You <name > message with the duration of usage (hint: Use session to store name and time).</p> <p>ii Write a PHP Program to display current Date, Time and Day.</p> <p>iii 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.</p> <p>iv A web application that lists all cookies stored in the browser on clicking “List Cookies” button. Add cookies if necessary.</p>	
10	Implement the web applications with Database using (a) PHP, (b) Servlets and (c) JSP.	52-57
11	Modify the above PHP program to use an xml instead of database	58-59
12	Write a program to design a simple calculator using (a) JavaScript (b) PHP (c) Servlet and (d) JSP.	60-67

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 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%" cellspacing=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;</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;</td>
          <td> <input type="submit" value="Add to cart"/></td>
        </tr>
      </table>
    </form>
  </body>
</html>
```

login.html:

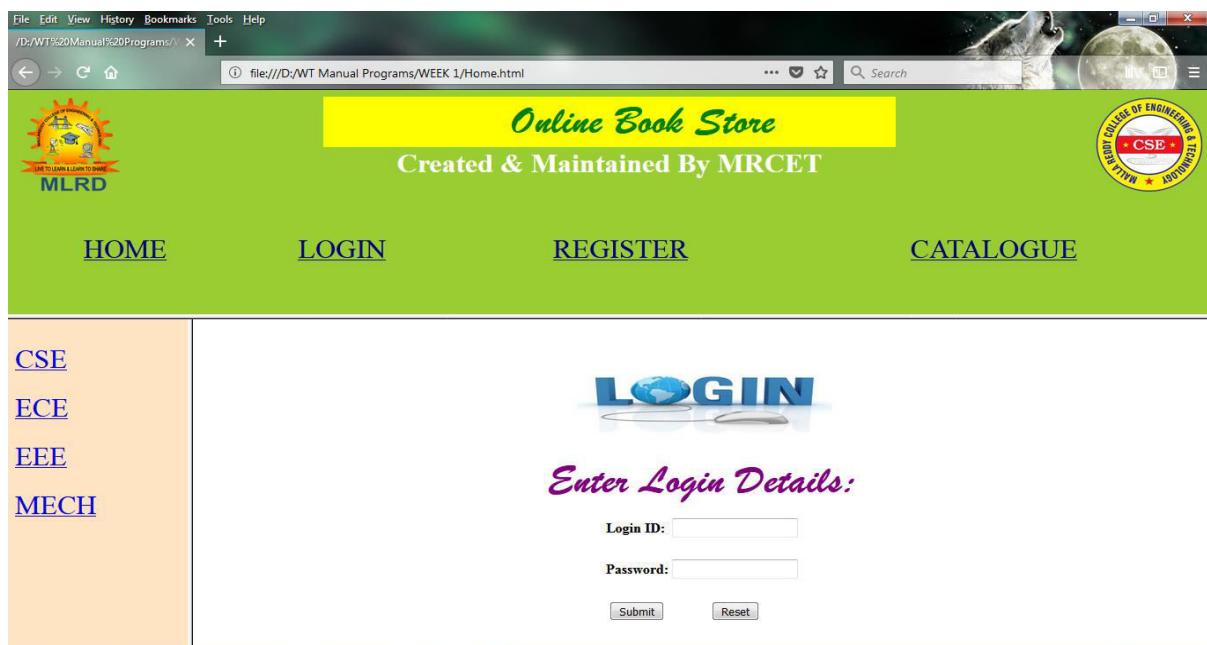
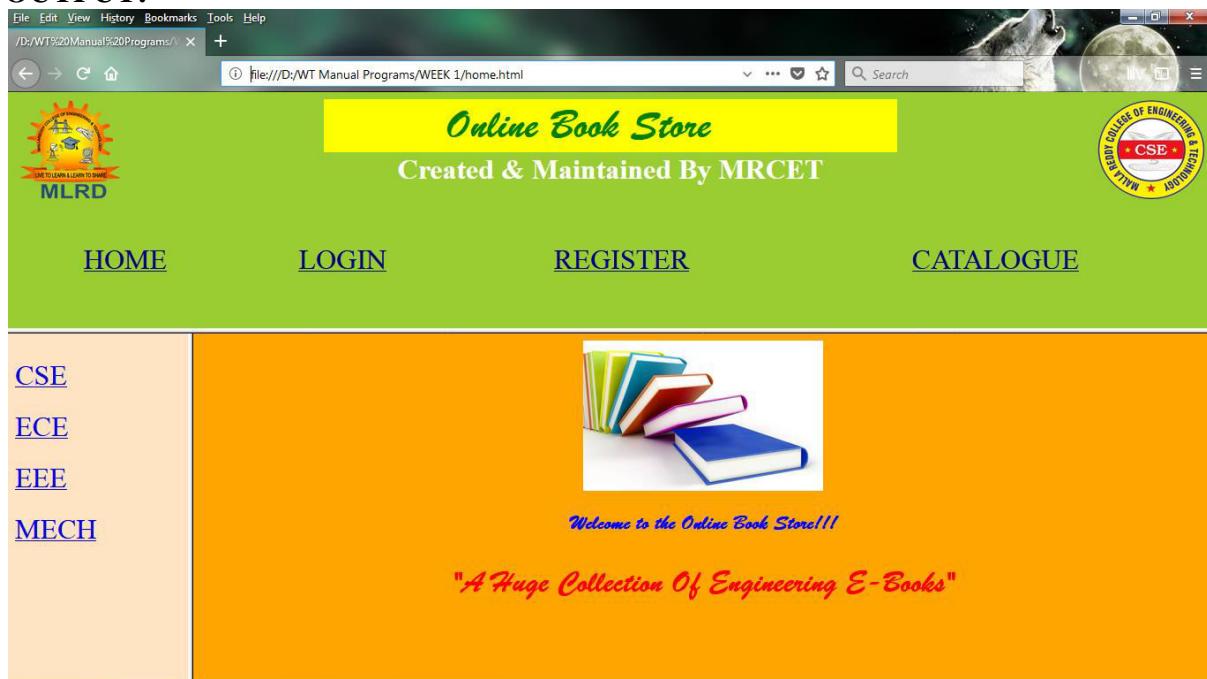
```
<html>
<body bg color="pink">
<basefont face="Cambria" size="4"> <br>
<center>
<br />
<font face="Brush Script MT" size="7" color="purple">
<b>Enter Login Details:</b>
</font>
</center>
<form name="f1" method="post" action="right.html">
<table align="center" width="100" height="150" cellspacing="15">
<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:

```
<html>
<head><title>Registration Form</title></head>
<body bgcolor="#E4F0F8">
<center><font color="blue" size="6" face="arial">Registration Form</font></center><br />
<form action="right.html">
First Name(Minimum 6 characters)<font color="red">*</font>
<input type='text' id='firstname' /><br /><br />
Last Name<font color="red"><font color="red">*</font> &nbsp;&nbsp;&nbsp;
<input type='text' id='lastname' /><br /><br />
EmailAddress<font color="red">*</font> &nbsp;&nbsp;&nbsp;
<input type='text' id='email' /><br />
<font color="red">(one e-mail id only):</font> &nbsp;&nbsp;&nbsp;
<font color="redblue">e.g. smith@hotmail.com</font><br /><br />
Password(minimum 6 characters)<font color="red">*</font> &nbsp;&nbsp;&nbsp;
<input type='password' id='pass' /><br /><br />
Address<font color="red">*</font> &nbsp;&nbsp;&nbsp;
<textarea rows="2" cols="20" id='addr' /></textarea> <br /> <br />
Mobile No<font color="red">*</font> &nbsp;&nbsp;&nbsp;
<input type='text' id='mobileno' /><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>
```

order.html:

```
<html>
<head><title>order conformation</title></head>
<body bgcolor="cyan">
<center>
<pre><strong>
<b>Your order Is Conformed
</strong></pre>
<h2><b>THANK YOU...Visit Again</b></h2>
</center>
</body>
</html>
```

OUTPUT:

Online Book Store
Created & Maintained By MRCET

[HOME](#) [LOGIN](#) [REGISTER](#) [CATALOGUE](#)

Registration Form

CSE	First Name(Minimum 6 characters)*
ECE	Last Name*
EEE	EmailAddress* (one e-mail id only): e.g. smith@hotmail.com
MECH	Password(minimum 6 characters)*
	Address*
	Mobile No*
	Gender: <input type="radio"/> male <input type="radio"/> female
	<input type="submit"/> <input type="reset"/>

Online Book Store
Created & Maintained By MRCET

[HOME](#) [LOGIN](#) [REGISTER](#) [CATALOGUE](#)

CSE		Book: Web Technologies Author: Uttam K. Roy Publication: Oxford University Press	531	<input type="button" value="Add to cart"/>
ECE		Book: PHP & MySQL Web Development Author: Luke Welling & Laura Thompson Publication: PEARSON	898	<input type="button" value="Add to cart"/>
EEE				
MECH				

Online Book Store
Created & Maintained By MRCET

[HOME](#) [LOGIN](#) [REGISTER](#) [CATALOGUE](#)

Computer Science and Engineering

Text Books:

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

The screenshots show the following content:

- Screenshot 1 (Top):** Shows a confirmation message: "Your order Is Conformed" and "THANK YOU...Visit Again".
- Screenshot 2 (Second from top):** Shows a section for "Electronics and Communication Engineering" with bullet points: "Digital Circuits", "Signals and Systems", and "Digital Communication".
- Screenshot 3 (Third from top):** Shows a section for "Electrical and Electronics Engineering" with bullet points: "Concepts in Electric Circuits", "Introduction to Electronic Engineering", and "Electrical Power".
- Screenshot 4 (Bottom):** Shows a section for "Mechanical Engineering" with bullet points: "I. Theory of Machines", "II. Automation and Robotics", and "III. Engineering Fluid Mechanics".

EXERCISE:

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

WEEK 2: 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 mobileno = document.getElementById('mobileno');

    // 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(mobileno, "Please enter a valid mobileno")){
                                        if(lengthRestriction1(mobileno, 10 , 10)){
                                            return true;
                                        }
                                    }
                                }
                            }
                        }
                    }
                }
            }
        }
    }
    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{
        alert("Please enter minimum " +min+ " characters");
        elem.focus();
        return false;
    }
}

function emailValidator(elem, helperMsg)
{
```

```
var emailExp = /^[w\.-\.]+@[a-zA-Z0-9\.-]+\.[a-zA-z0-9]{2,4}$/;
if(elem.value.match(emailExp))
{
    return true;
}
else{
    alert(helperMsg);
    elem.focus();
    return false;
}

function lengthRestriction1(elem, min, max)
{
    var uInput = elem.value;
    if(uInput.length >= min && uInput.length <= max)
    {
        return true;
    }
    else {
        alert("Please enter 10 numbers only");
        elem.focus();
        return false;
    }
}

</script>
<center><font color="blue" size="6" face="arial">Registration Form</font></center><br />
<form onsubmit='return formValidator()' action="right.html">
First Name(Minimum 6 characters)<font color="red">*</font>
<input type='text' id='firstname' /><br /><br />
Last Name<font color="red"><font color="red">*</font> </font> &ampnbsp&ampnbsp&ampnbsp
<input type='text' id='lastname' /><br /><br />
Email Address<font color="red">*</font> &ampnbsp&ampnbsp&ampnbsp
<input type='text' id='email' /><br />
<font color="red">(one e-mail id only):</font> &ampnbsp&ampnbsp&ampnbsp
<font color="redblue">e.g. smith@hotmail.com</font><br /><br />
Password(minimum 6 characters)<font color="red">*</font> &ampnbsp&ampnbsp&ampnbsp
<input type='password' id='pass' /><br /><br />
Address<font color="red">*</font> &ampnbsp&ampnbsp&ampnbsp
<textarea rows="2" cols="20" id='addr' /></textarea> <br /> <br/>
Mobile No<font color="red">*</font> &ampnbsp&ampnbsp&ampnbsp
<input type='text' id='mobileno' /><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:

Registration Form Validation

file:///D:/WT Manual Programs/validation.html

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

can not be null

OK

Registration Form

First Name(Minimum 6 characters)* 78787

Last Name*

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

Password(minimum 6 characters)*

Address*

Mobile No*

Gender: male female

Please enter only letters for your Firstname

OK

Registration Form

First Name(Minimum 6 characters)* fds

Last Name*

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

Password(minimum 6 characters)*

Address*

Mobile No*

Gender: male female

Please enter minimum 6 characters

OK

Registration Form

First Name(Minimum 6 characters)* mrcetse

Last Name*

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

Password(minimum 6 characters)*

Address*

Mobile No*

Gender: male female

Please enter only letters for your Lastname

OK

The image displays four sequential screenshots of a web browser window titled "Registration Form". The browser's address bar shows the URL "file:///D:/WT Manual Programs/validation.html". The form contains fields for First Name, Last Name, Email Address, Password, Address, Mobile No., and Gender (male/female). A validation message box appears in each screenshot, indicating different types of validation errors.

- Screenshot 1:** Shows an error message "Please enter a valid email address" over the Email Address field. The Email Address input contains "mrcetcse".
- Screenshot 2:** Shows the same validation message "Please enter a valid email address" over the Email Address field. The Email Address input now contains "mrcetcse@".
- Screenshot 3:** Shows a new validation message "Please enter minimum 6 characters" over the Password field. The Password input contains "*****".
- Screenshot 4:** Shows the same validation message "please enter the address" over the Address field. The Address input is empty.

Registration Form Validation + file:///D:/WT Manual Programs/validation.html

Registration Form

First Name(Minimum 6 characters)* mrcetcse

Last Name* thirdyear

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

Password(minimum 6 characters)* *****

Kompally Hyderabad

Address*

Mobile No* bhghgh

Gender: male female

submit reset

Please enter a valid mobileno

OK

Registration Form Validation + file:///D:/WT Manual Programs/validation.html

Registration Form

First Name(Minimum 6 characters)* mrcetcse

Last Name* thirdyear

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

Password(minimum 6 characters)* *****

Kompally Hyderabad

Address*

Mobile No* 123456

Gender: male female

submit reset

Please enter 10 numbers only

OK

Registration Form Validation + file:///D:/WT Manual Programs/validation.html

Registration Form

First Name(Minimum 6 characters)* mrcetcse

Last Name* thirdyear

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

Password(minimum 6 characters)* *****

Kompally Hyderabad

Address*

Mobile No* 1234567890

Gender: male female

submit reset

HTML Color Names order conformation

file:///D:/WT%20Manual%20Programs/success.html?gender=on

Successfully Registered....

WEEK - 3: 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:

This Paragraph is a Not Styled

This Paragraph is Styled by class "Left"

THIS PARAGRAPH IS STYLED BY CLASS "CENTER"

This Paragraph is Styled by class "Right"

This is normal Bold

This Bold Text is Styled

This is a link

The cursor over this element is plus sign

The cursor over this element is a pointing hand

The cursor over this element is a grasping hand

The cursor over this element is a I bar

The cursor over this element is a wait

The cursor over this element is a question mark

OUTPUT 2: background-repeat : repeat;

This Paragraph is Not Styled

This Paragraph is Styled by class "Left"

CSS (Inline, Internal and External)

This Paragraph is Styled by class "Center"

This Paragraph is Styled by class "Right"

This is normal Bold

This Bold Text is Styled

This is a link

The cursor over this element is plus sign

The cursor over this element is a pointing hand

The cursor over this element is a grasping hand

The cursor over this element is a I bar

The cursor over this element is a wait

The cursor over this element is a question mark

EXERCISE:

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

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

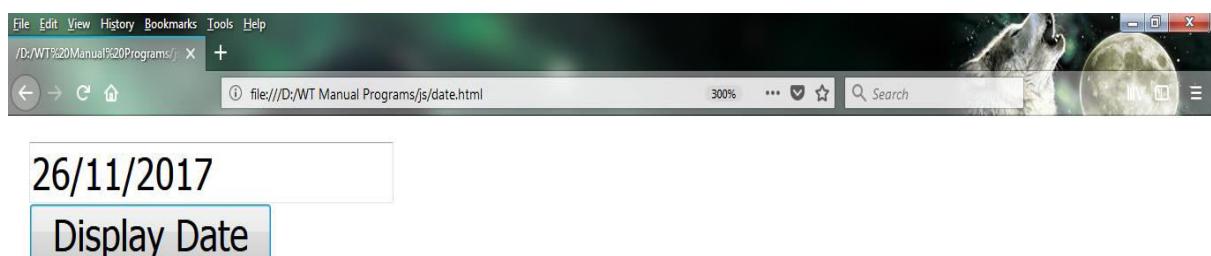
- a) Input: Click on Display Date button using onclick() function
Output: Display **date** in the textbox
- b) Input: A number n obtained using **prompt**
Output: **Factorial** of n number using **alert**
- c) Input: A number n obtained using **prompt**
Output: A **multiplication table** of numbers from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

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>
```

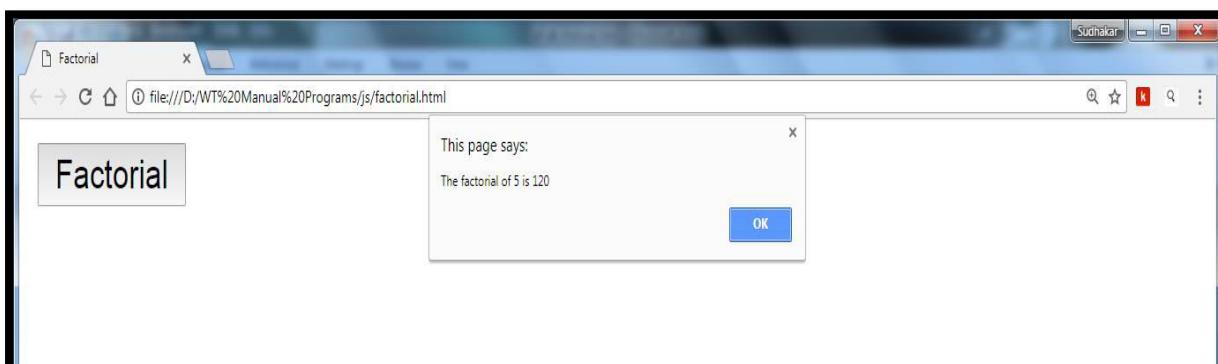
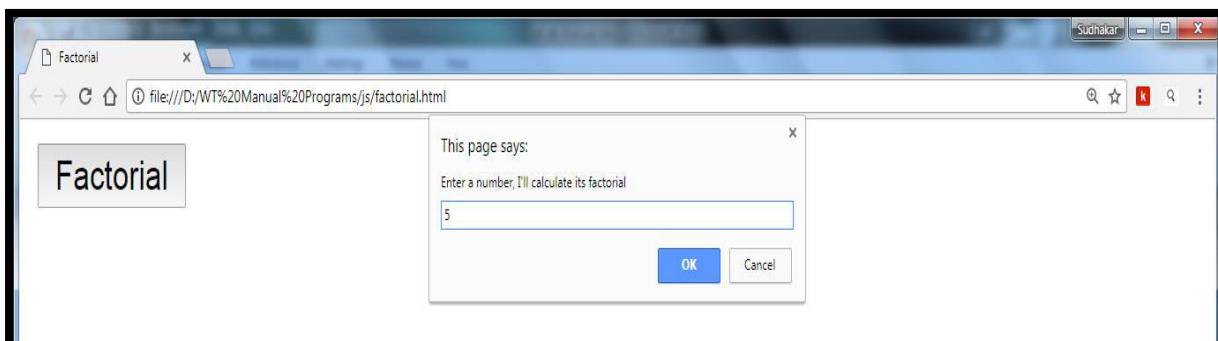
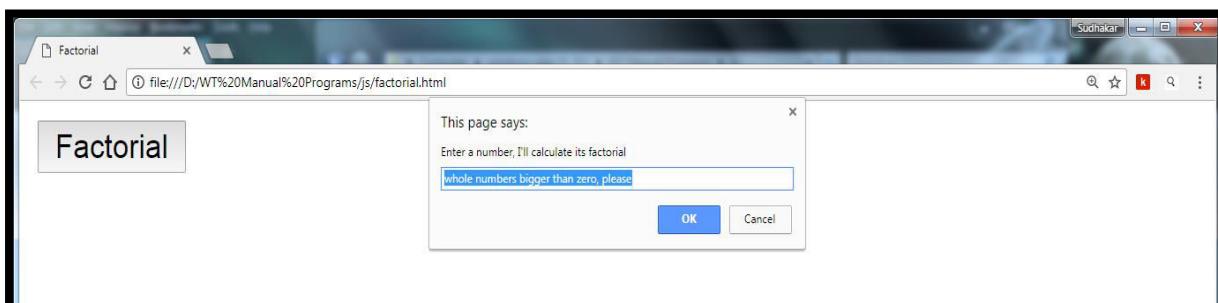
OUTPUT:



b) **factorial.html**

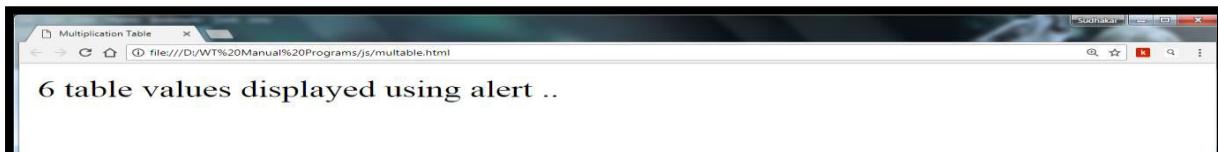
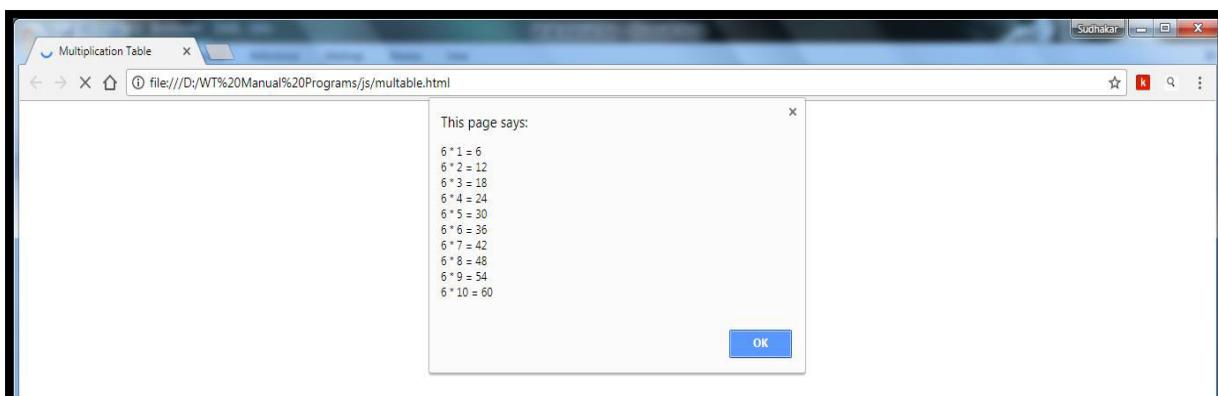
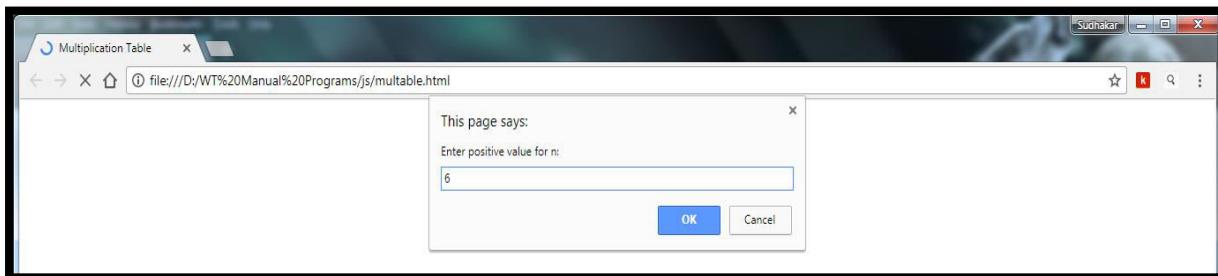
```
<html>
<head>
<title>factorial</title>
<script language='javascript'>
```

```
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:

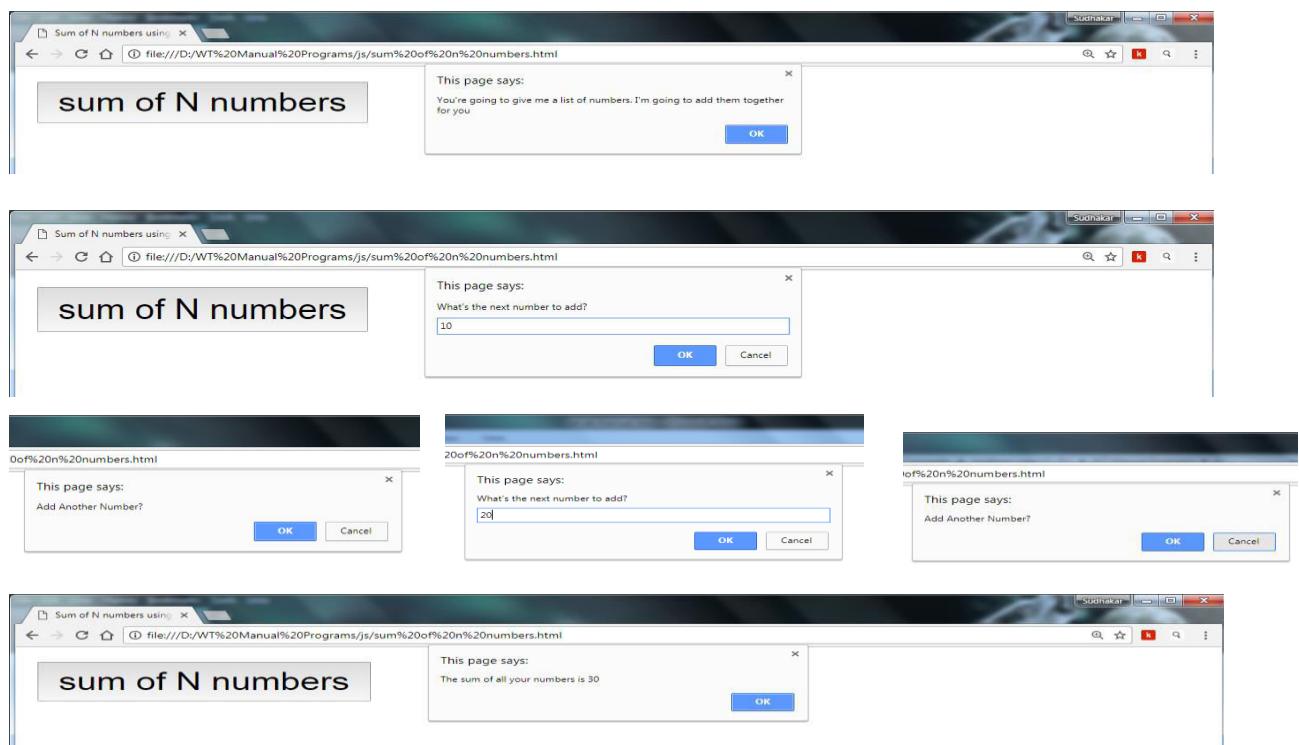
c) multable.html

```
<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:

d) 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.

WEEK - 5:

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 INDIA

Capital **NEW DELHI**

Week - 6:

Write an HTML page including any required JavaScript that takes a number from text field in the range of 0 to 999 and shows it in words. It should not accept four and above digits, alphabets and special characters.

AIM: To convert number to words using JavaScript

PROGRAM:**0-999.html**

```
<html>
<head>
<title>HTML - Convert numbers to words using JavaScript</title>
<SCRIPT language=Javascript>
<!--
function isNumberKey(evt)
{
    var charCode = (evt.which) ? evt.which : evt.keyCode;
    if (charCode != 46 && charCode > 31
        && (charCode < 48 || charCode > 57))
        return false;
    return true;
}
//-->
</SCRIPT>
<script>
function NumToWord(inputNumber, outputControl)
{
    var str = new String(inputNumber)
    var splt = str.split("");
    var rev = splt.reverse();
    var once = ['Zero', 'One', 'Two', 'Three', 'Four', 'Five', 'Six', 'Seven', 'Eight', 'Nine'];
    var twos = ['Ten', 'Eleven', 'Twelve', 'Thirteen', 'Fourteen', 'Fifteen', 'Sixteen',
    'Seventeen', 'Eighteen', 'Nineteen'];
    var tens = [", 'Ten', 'Twenty', 'Thirty', 'Forty', 'Fifty', 'Sixty', 'Seventy', 'Eighty',
    'Ninety'];
    numLength = rev.length;
    var word = new Array();
    var j = 0;
    for (i = 0; i < numLength; i++) {
        switch (i) {
            case 0:
                if ((rev[i] == 0) || (rev[i + 1] == 1)) {
                    word[j] = ",";
                }
                else {
                    word[j] = once[rev[i]];
                }
                word[j] = word[j];
                break;
            case 1:
                aboveTens();
        }
    }
    outputControl.value = word.join("");
}
</script>
```

```

        break;
    case 2:
        if (rev[i] == 0) {
            word[j] = "";
        }
        else if ((rev[i - 1] == 0) || (rev[i - 2] == 0)) {
            word[j] = once[rev[i]] + " Hundred ";
        }
        else {
            word[j] = once[rev[i]] + " Hundred and";
        }
        break;
    default: break;
}
j++;
}
function aboveTens() {
    if (rev[i] == 0) { word[j] = ""; }
    else if (rev[i] == 1) { word[j] = twos[rev[i - 1]]; }
    else { word[j] = tens[rev[i]]; }
}
word.reverse();
var finalOutput = "";
for (i = 0; i < numLength; i++) {
    finalOutput = finalOutput + word[i];
}
document.getElementById(outputControl).innerHTML = finalOutput;
}
</script>
</head>
<body>
<h1>HTML - Convert numbers to words using JavaScript</h1>
<input id="Text1" type="text" onkeypress="return isNumberKey(event)"
onkeyup="NumToWord(this.value,'divDisplayWords');" maxlength="3" style="background-
color: #efefef; border: 2px solid #CCCCCC; font-size: large" />
<br /> <br />
<div id="divDisplayWords" style="font-size: 30; color: Teal; font-family: Arial;">
</div>
</body>
</html>

```

OUTPUT:

HTML - Convert numbers to words using JavaScript

567

Five Hundred and Sixty Seven

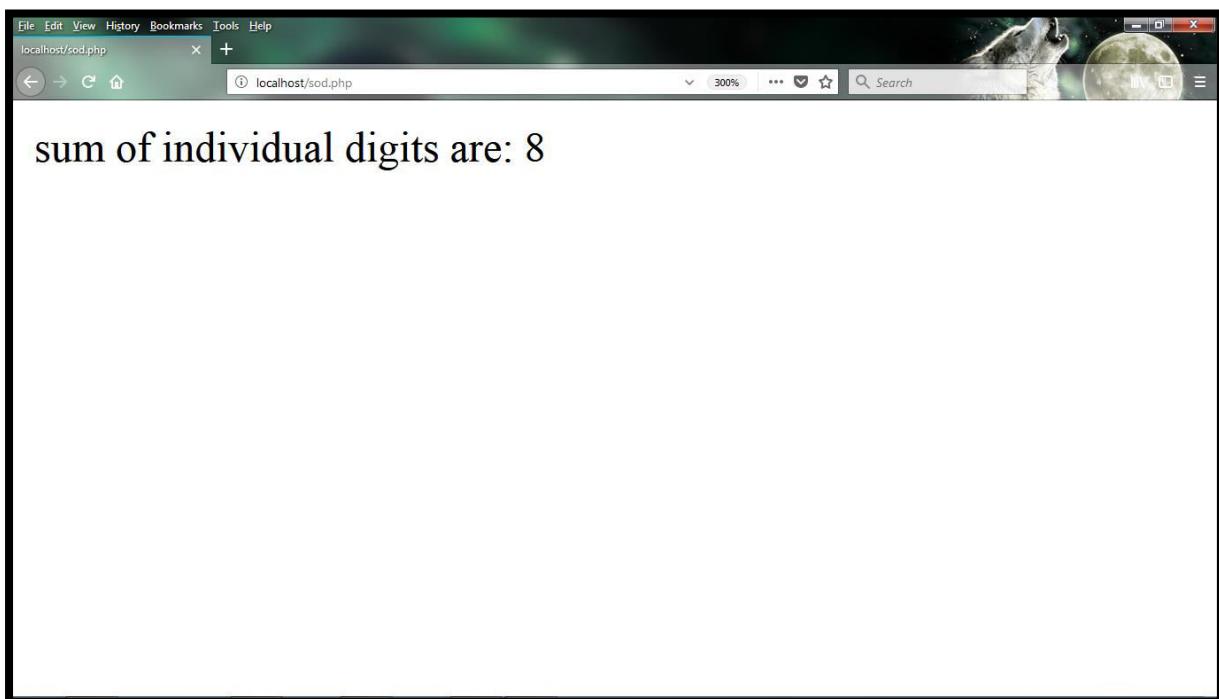
WEEK - 7: Develop and demonstrate PHP Script for the following problems:

- a) Write a PHP Script to find out the Sum of the Individual Digits.**
- b) Write a PHP Script to check whether the given number is Palindrome or not**

a) Find out Sum of the individual Digits

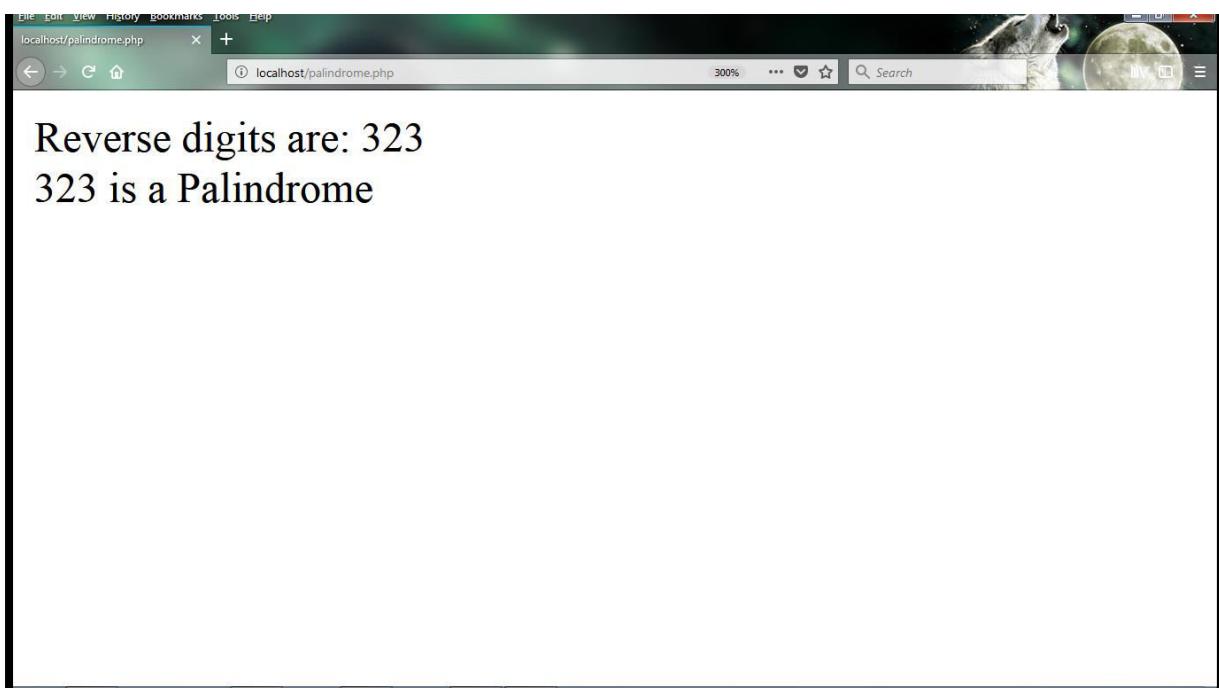
```
<?php  
$n=323;  
$sum=0;  
while($n>0)  
{  
    $r=$n%10;  
    $sum+=$r;  
    $n=$n/10;  
}  
echo "sum of individual digits are: $sum";  
?>
```

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:**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.

Week - 8:

Create an XML document that contains 10 users information. Write a Java Program, which takes User Id as input and returns the user details by taking the user information from XML document using DOM parser or SAX parser.

AIM: Takes User Id as input and returns the user details using XML with DOM

PROGRAM:**users.xml**

```
<usersinformation>
<user>
    <rollno>501</rollno>
    <name>aaa</name>
    <branch>cse</branch>
    <college>mrcet</college>
</user>
<user>
    <rollno>502</rollno>
    <name>bbb</name>
    <branch>cse</branch>
    <college>mrcet</college>
</user>
<user>
    <rollno>503</rollno>
    <name>ccc</name>
    <branch>cse</branch>
    <college>mrcet</college>
</user>
<user>
    <rollno>504</rollno>
    <name>ddd</name>
    <branch>cse</branch>
    <college>mrcet</college>
</user>
<user>
    <rollno>505</rollno>
    <name>eee</name>
    <branch>cse</branch>
    <college>mrcet</college>
</user>
<user>
    <rollno>506</rollno>
    <name>fff</name>
    <branch>cse</branch>
    <college>mrcet</college>
</user>
<user>
    <rollno>507</rollno>
    <name>ggg</name>
    <branch>cse</branch>
```

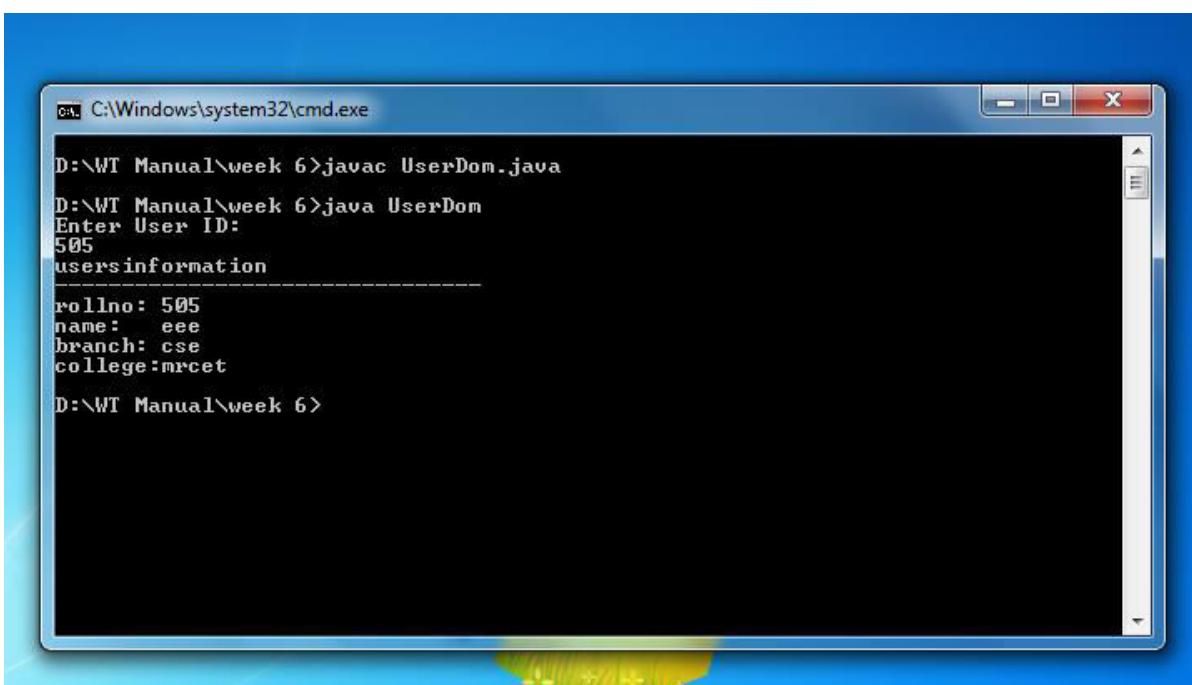
```
<college>mrcet</college>
</user>
<user>
    <rollno>508</rollno>
    <name>hhh</name>
    <branch>cse</branch>
    <college>mrcet</college>
</user>
<user>
    <rollno>509</rollno>
    <name>iii</name>
    <branch>cse</branch>
    <college>mrcet</college>
</user>
<user>
    <rollno>510</rollno>
    <name>jjj</name>
    <branch>cse</branch>
    <college>mrcet</college>
</user>
</usersinformation>
```

UserDom.java

```
import java.io.File;
import javax.xml.parsers.*;
import org.w3c.dom.*;
import java.util.Scanner;
public class UserDom
{
    public static void main(String args[]) throws Exception
    {
        DocumentBuilderFactory fac=DocumentBuilderFactory.newInstance();
        DocumentBuilder b=fac.newDocumentBuilder();
        Document doc=b.parse(new File("users.xml"));
        doc.getDocumentElement().normalize();
        Element root=doc.getDocumentElement();
        Scanner in=new Scanner(System.in);
        System.out.println("Enter User ID:");
        int n=in.nextInt();
        int flag=0;
        NodeList nl=doc.getElementsByTagName("user");
        for(int i=0;i<nl.getLength();i++)
        {
            Node node=nl.item(i);
            if(node.getNodeType()==Node.ELEMENT_NODE)
            {
                Element e=(Element)node;
                int
                x=Integer.parseInt(e.getElementsByTagName("rollno").item(0).getTextContent());
                if(x==n)
                {
```

```
System.out.println(root.getNodeName());
System.out.println("-----");
System.out.println("rollno:\t"+e.getElementsByTagName("rollno").item(0).getTextContent());
System.out.println("name:\t"+e.getElementsByTagName("name").item(0).getTextContent());
System.out.println("branch:\t"+e.getElementsByTagName("branch").item(0).getTextContent());
System.out.println("college:" + e.getElementsByTagName("college").item(0).getTextContent());
flag=1;
break;
}
else
{
flag=0;
}
}
}
}
if(flag==0)
System.out.println("User not available");
}
}
```

OUTPUT:



```
D:\WT Manual\week 6>javac UserDom.java
D:\WT Manual\week 6>java UserDom
Enter User ID:
505
users information
-----
rollno: 505
name:   eee
branch: cse
college:mrcet
D:\WT Manual\week 6>
```

EXERCISE:

1. Write a XML program to validate student details(Rno, Name, college & branch) using DTD and Schemas.
2. Write a XML program to validate book details(Title of the book, Author Name, ISBN no & Publication) using DTD and Schemas.

WEEK - 9:

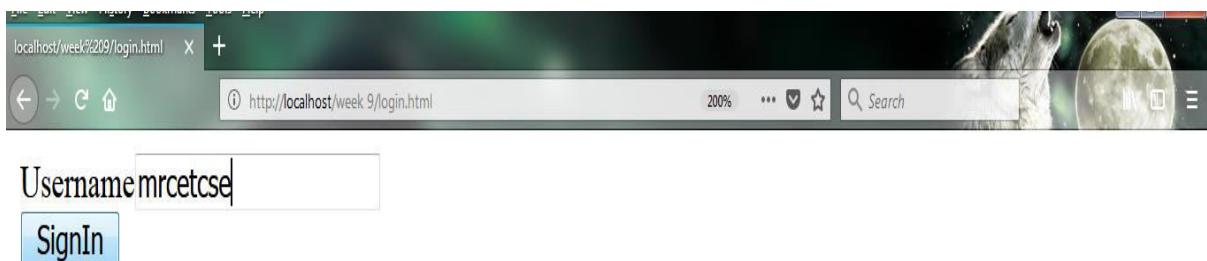
Implement the following web applications using (a) PHP, (b) Servlets and (c) JSP.

9 (i) (a). A web application that takes a name as input and on submit it shows a hello <name> page where name is taken from the request. It shows the start time at the right top corner of the page and provides a logout button. On clicking this button, it should show a logout page with Thank You <name > message with the duration of usage (hint: Use session to store name and time).

AIM: To design an application that use session to store data.

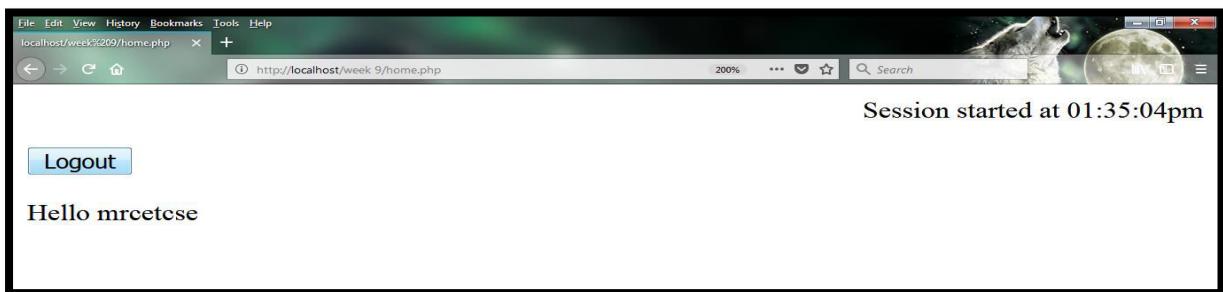
PROGRAM:**login.html**

```
<html>
<form action="home.php" method="post">
Username<input type="text" name="text1"><br>
<input type="submit" value="SignIn" name="submit">
</form>
</html>
```

Output of login.html:**Home.php:**

```
<?php
session_start();
date_default_timezone_set("Asia/Calcutta");
$_SESSION['luser'] = $_POST['text1'];
$_SESSION['start'] = time();
$tm=$_SESSION['start'];
print "<p align='right'>Session started at " . date("h:i:sa",$tm) . "<br>";
print "<form action='logoutpage.php' method='post'>";
print "<input type='submit' value='Logout'></p>";
print "</form>";
print "Hello " . $_SESSION['luser'];
?>
```

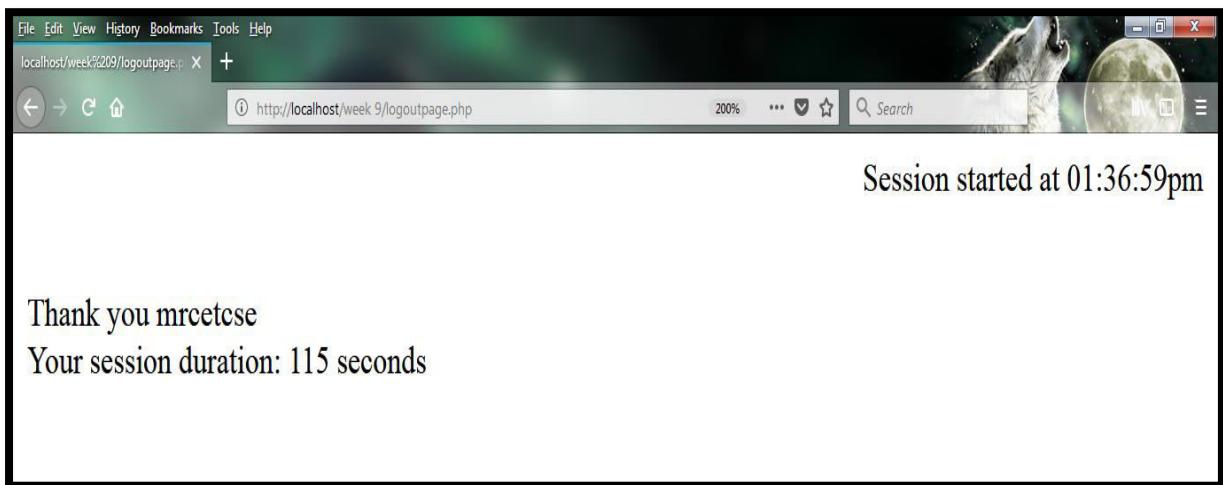
Output of home.php:



Logoutpage.php:

```
<?php
    session_start();
    date_default_timezone_set("Asia/Calcutta");
    print "<p align='right'>Session started at " . date("h:i:s",time()) . "</p><br>";
    print "Thank you " . $_SESSION['luser'];
    $sessiontime = time() - $_SESSION['start'];
    print "<br> Your session duration: " . $sessiontime . " seconds";
    session_destroy();
?>
```

Output of Logoutpage.php:



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

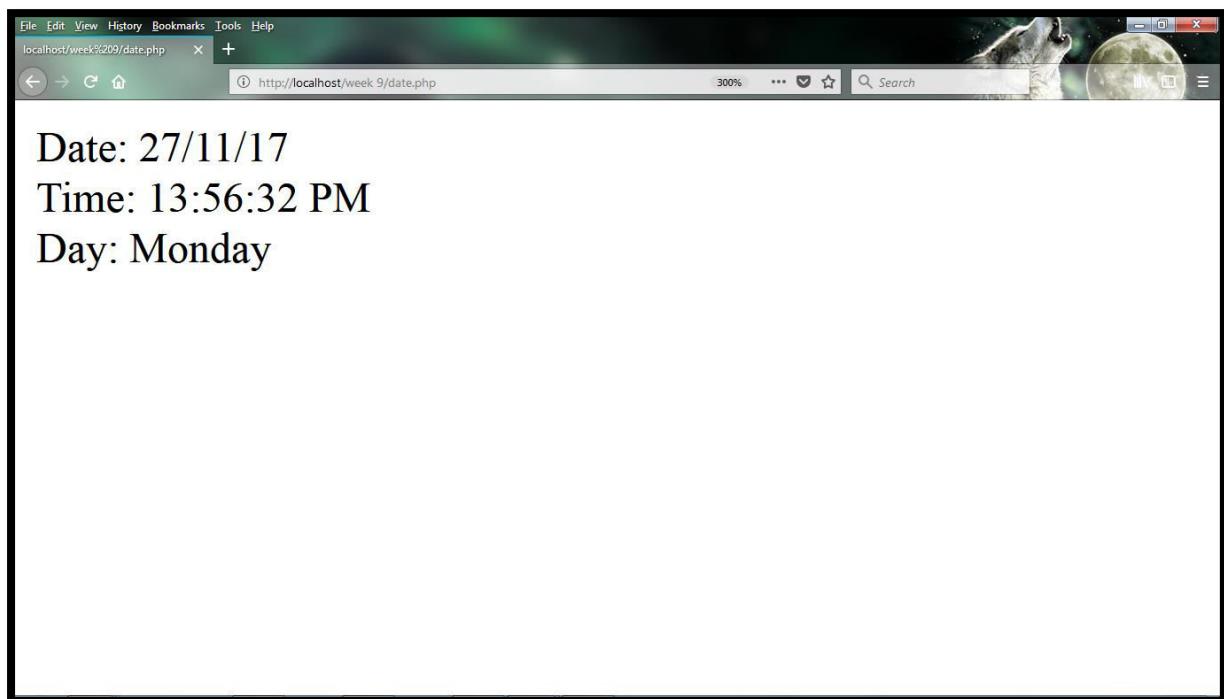
AIM: To display current date , Time and Day using PHP.

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:



9 (iii) (a). 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.

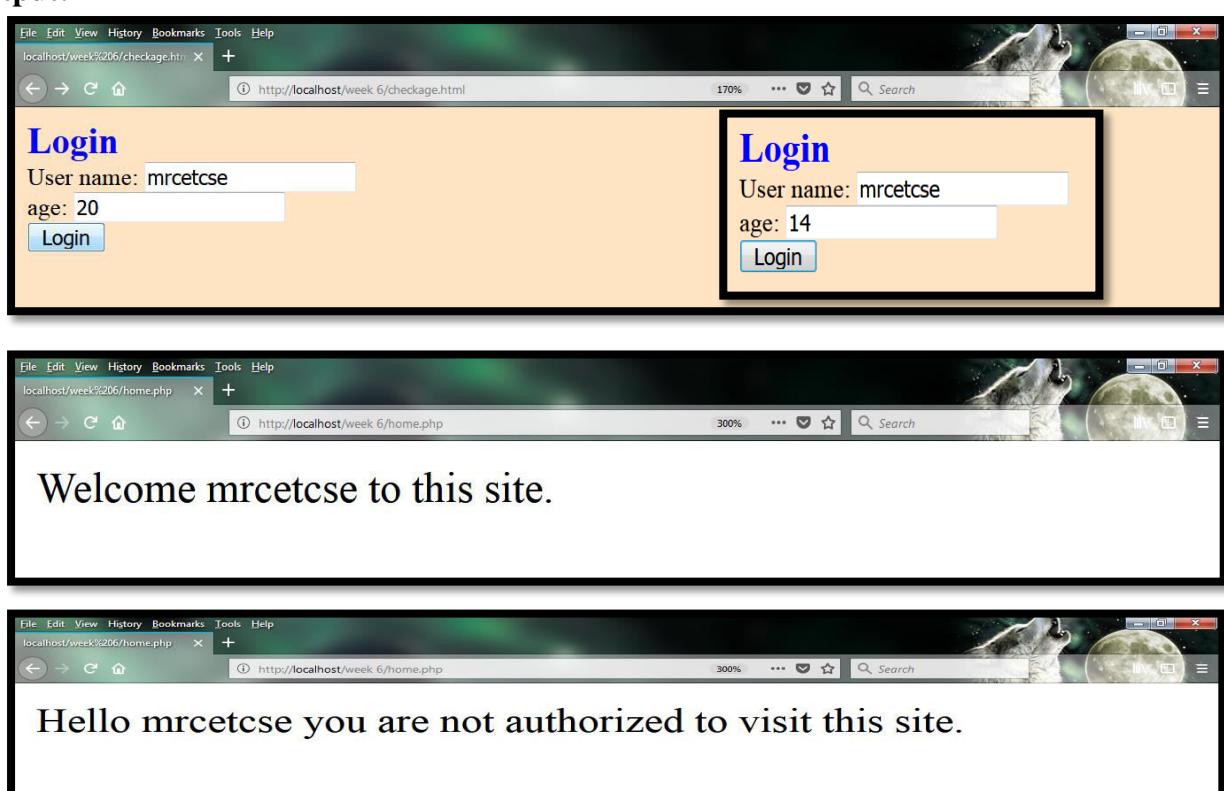
AIM: To design an application to validate age are less than 18 or more than 18 using PHP.

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."
?>
```

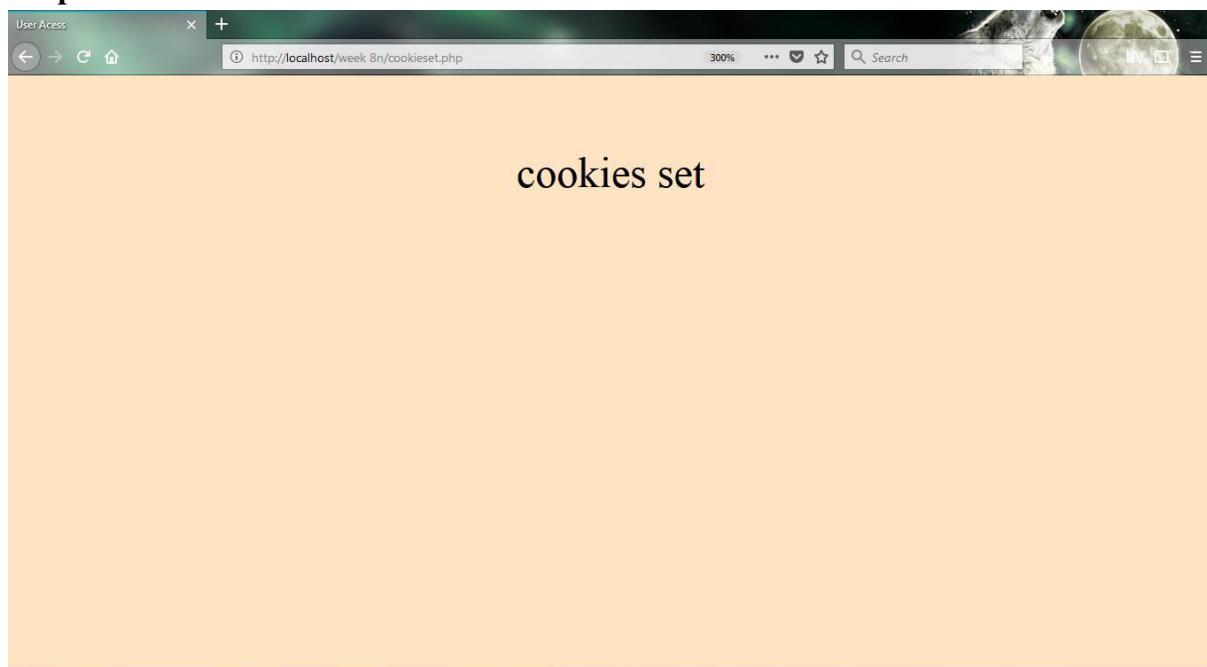
Output:

9 (iv) (a). 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 PHP.

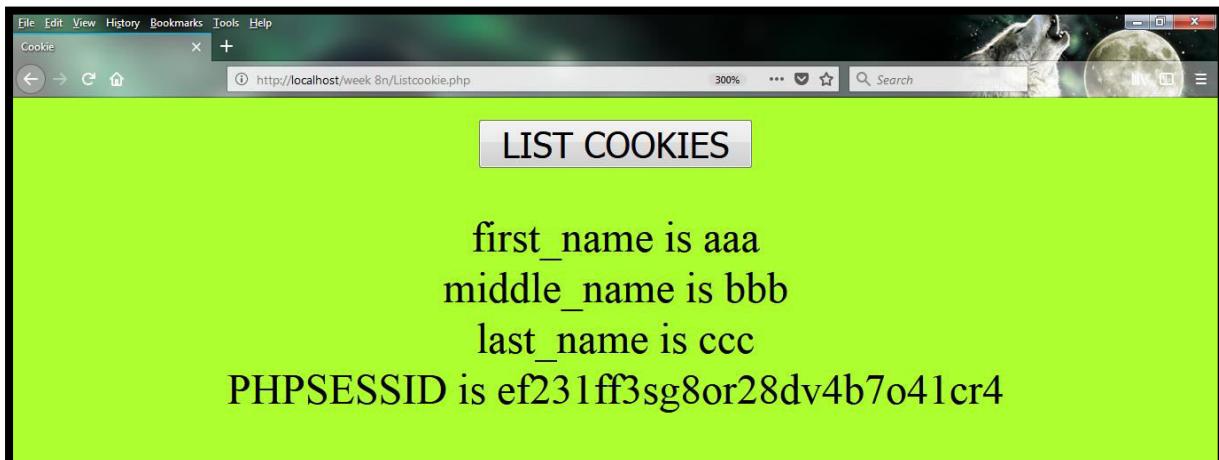
PROGRAM:**cookieset.php**

```
<html>
<head> <title> User Acess </title> </head>
<body bgcolor="bisque"> <br>
<center>
<?php
    $firstname = 'aaa';
    $middlename = 'bbb';
    $lastname = 'ccc';
    setcookie('first_name',$firstname,time() + 86400);
    setcookie('middle_name',$middlename,time() + 86400);
    setcookie('last_name',$lastname,time() + 86400);
    print "cookies set";
?
</center>
</body>
</html>
```

Output:

Listcookie.php

```
<html>
<head> <title> Cookie </title> </head>
<body bgcolor="GreenYellow">
<center>
<form action="" method="post">
    <input type="submit" value="LIST COOKIES" name="list">
</form>
</center>
<?php
    error_reporting(0);
    if($_POST['list'])
    {
        foreach($_COOKIE as $key=>$val)
        {
            echo "<center>".$key." is ".$val."<br>
</center>";
        }
    }
?
</body>
</html>
```

Output:

9 (i) (b). A web application that takes a name as input and on submit it shows a hello <name> page where name is taken from the request. It shows the start time at the right top corner of the page and provides a logout button. On clicking this button, it should show a logout page with Thank You <name > message with the duration of usage (hint: Use session to store name and time).

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:

A screenshot of a web browser window titled "SESSION LOGIN". The address bar shows "localhost:8080/Session1/Session1.html". The page contains a form with the text "Enter Name: mrcet" and a "LOGIN" button.

A screenshot of a web browser window titled "localhost:8080/Session1/session6vib". The address bar shows "localhost:8080/Session1/session6vib?uname=mrcet®ister=LOGIN". The page displays the text "Time:1511847707089" and "Hello mrcet", along with a "logout" button.

A screenshot of a web browser window titled "localhost:8080/Session1/session26vib". The address bar shows "localhost:8080/Session1/session26vib". The page displays the text "Thank you mrcet" and "Session duration: '163'seconds".

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

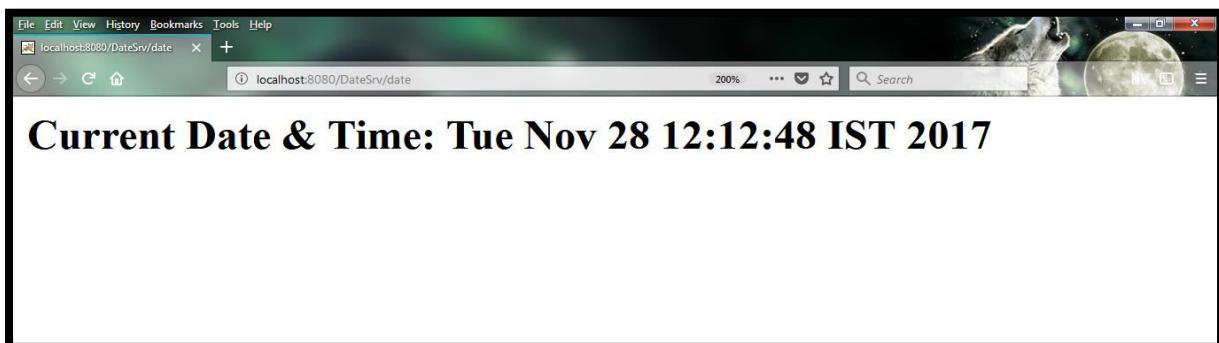
DateSrv.java

```
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>
                    <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:

A screenshot of a web browser window titled "VoterApp". The URL bar shows "localhost:8080/CheckAge/". The form contains two text input fields: "Name" with value "mrcetcse" and "Age" with value "20". Below the inputs is a blue button labeled "Check Eligibility".



[back](#)

A screenshot of a web browser window titled "VoterApp". The URL bar shows "localhost:8080/CheckAge/index.html". The form contains two text input fields: "Name" with value "cse" and "Age" with value "14". Below the inputs is a blue button labeled "Check Eligibility".



[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"/>
      </form>
      </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 Microsoft Internet Explorer browser window. The title bar says "CookiesExample". The address bar shows "localhost:8080/MyServlet1/". The page content is a login form with a light green background. It has two text input fields: one for "User Name" containing "MrcetCse" and one for "Password" containing "*****". Below the password field is a blue "submit" button.

A screenshot of a Microsoft Internet Explorer browser window. The title bar says "localhost:8080/MyServlet1/login". The address bar shows "localhost:8080/MyServlet1/login?Name=MrcetCse&Password=123456". The page content displays the message "Cookies Set: Hello MrcetCse" and "Your Password is: 123456" in black text. Below this, there is a blue link underlined with the text "LIST COOKIES".

A screenshot of a Microsoft Internet Explorer browser window. The title bar says "localhost:8080/MyServlet1/welcome". The address bar shows "localhost:8080/MyServlet1/welcome". The page content displays the message "Name: MrcetCse" and "Password: 123456" in black text.

9 (i) (c). A web application that takes a name as input and on submit it shows a hello <name> page where name is taken from the request. It shows the start time at the right top corner of the page and provides a logout button. On clicking this button, it should show a logout page with Thank You <name > message with the duration of usage (hint: Use session to store name and time).

USING JSP**Sessionjsp.html**

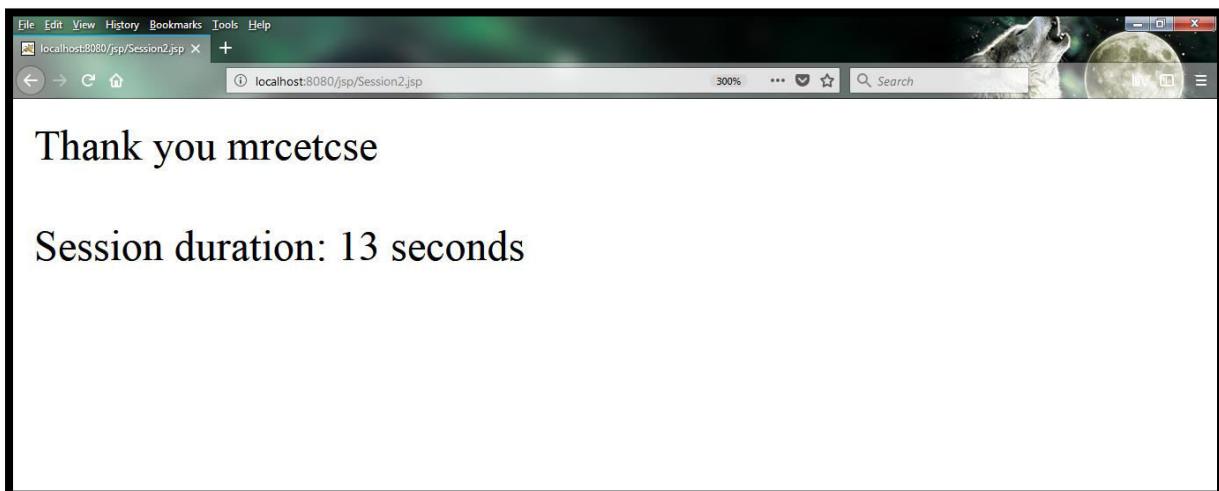
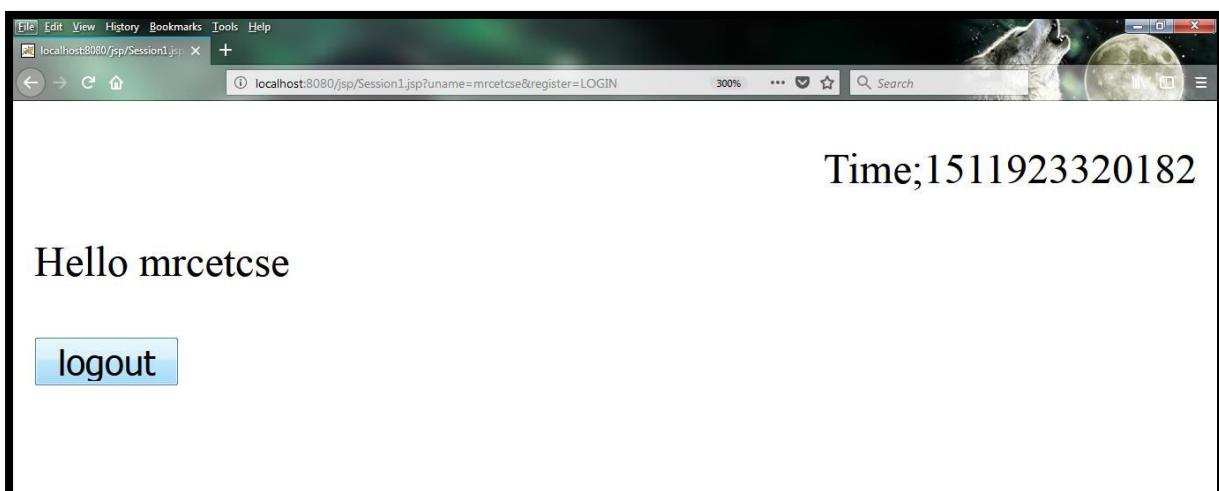
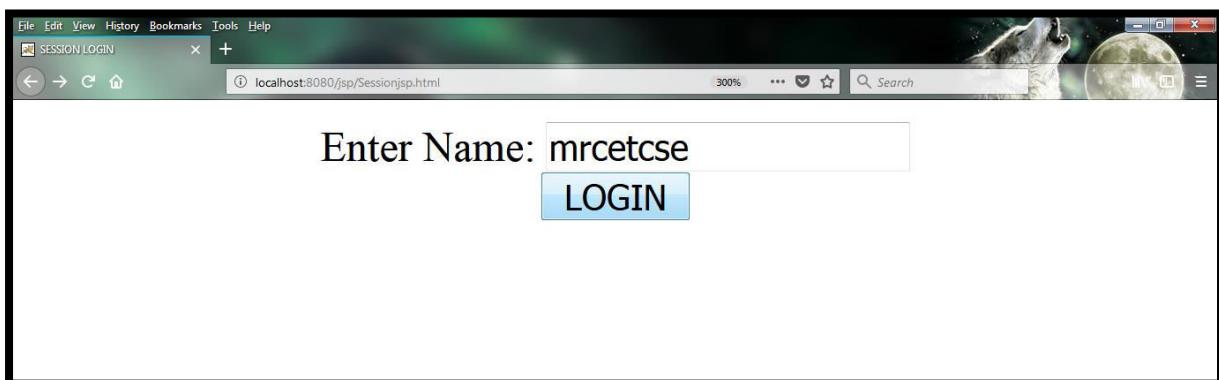
```
<html>
<head> <title> SESSION LOGIN </title> </head>
<body>
<center>
<form action="http://localhost:8080/jsp/Session1.jsp" method="get">
Enter Name: <input type="text" name="uname"> <br>
<input type="submit" value="LOGIN" name="register">
</form>
</center>
</body>
</html>
```

Session1.jsp

```
<%@page language="java" import="java.util.*" errorPage=""%>
<form method="get" action="http://localhost:8080/jsp/Session2.jsp">
<%
Date d=new Date();
%>
<p align="right"> Time;<%=d.getTime()%></p>
<%
String un=request.getParameter("uname");
session.setAttribute("user",un);
session.setAttribute("time",d.getTime());
%>
Hello <%=un%>
<br><br>
<input type="submit" value="logout">
</form>
```

Session2.jsp

```
<%@page language="java" import="java.util.*" errorPage=""%>
<%
Date d2=new Date();
String un=(String)session.getAttribute("user");
Long t1=(Long)session.getAttribute("time");
Long t2=d2.getTime();
%>
Thank you <%=un%>
<br><br>
Session duration: <%=(t2-t1)/(60*60)%> seconds
<% session.invalidate();%>
```

Output:

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

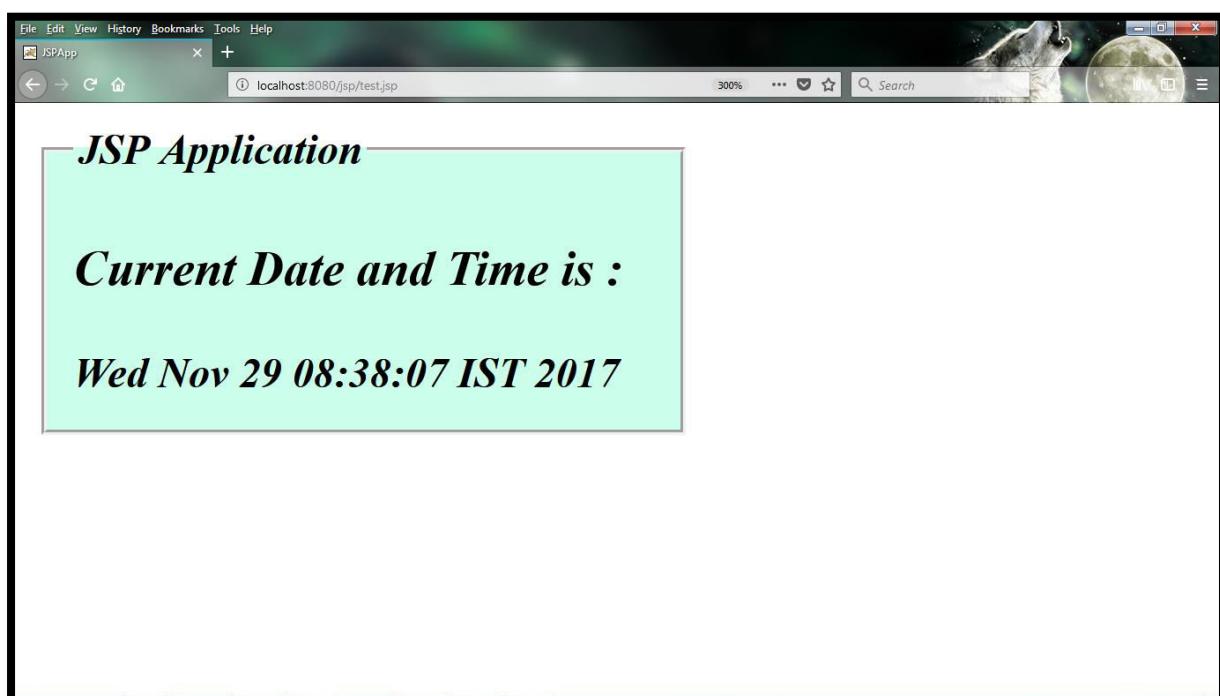
Aim: To print Current date and time using JSP.

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:



9 (iii) (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 JSP.

USING JSP

UserEligibility.html:

```
<html>
<head> <title> User Acess </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"><br>
</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 " +name+" you are not eligible </h1>");
}
else
{
out.println("<h1> Welcome " +name+" to this site </h1>");
}
%>
```

Output:

File Edit View History Bookmarks Tools Help
User Access x +
localhost:8080/jsp/UserEligibility.html 200% ... Search

USER ELIGIBILITY

File Edit View History Bookmarks Tools Help
localhost:8080/jsp/checkage.jsp x +
localhost:8080/jsp/checkage.jsp?uname=MrcetCse&uage=14&sub=submit 200% ... Search

Hello MrcetCse you are not eligible

File Edit View History Bookmarks Tools Help
User Access x +
localhost:8080/jsp/UserEligibility.html 200% ... Search

USER ELIGIBILITY

File Edit View History Bookmarks Tools Help
localhost:8080/jsp/checkage.jsp x +
localhost:8080/jsp/checkage.jsp?uname=MrcetCse&uage=34&sub=submit 200% ... Search

Welcome MrcetCse to this site

9 (iv) (c). 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 JSP.

USING JSP

cookie.html

```
<html>
<head> <title> Calculator </title> </head>
<body>
<form action="http://localhost:8080/jsp/cookie1.jsp" method="post">
Enter your name:<input type="text" name="name1" placeholder="Enter name">
<input type="submit" value="Add cookie">
</form>
</center>
</body>
</html>
```

cookie1.jsp

```
<%@page language="java" import="java.sql.*" errorPage=""%>
<%
String name=request.getParameter("name1");
Cookie c1=new Cookie ("firstname",name);
response.addCookie(c1);
c1.setMaxAge(50*50);
%>
<form method="get" action="http://localhost:8080/jsp/cookie2.jsp">
<input type="submit" value="List Cookies">
</form>
```

cookie2.jsp

```
<%@page language="java" import="java.sql.*" errorPage=""%>
<title> List of Cookies </title>
<h1> List of Cookies </h1>
<%
Cookie[] cookies=request.getCookies();
%>
<table border=1>
</tr>
<%
out.println("<td> Cookie Name </td> <td> Cookie value </td>");
for(int i=0;i<cookies.length;i++)
{
out.println("<h2> <tr> <td>" +cookies[i].getName()+"</td><td>" +cookies[i].getValue()+"</td></tr>");
}
%>
</tr>
</table>
```

Output:

A screenshot of a Microsoft Internet Explorer browser window. The address bar shows "localhost:8080/jsp/cookie.html". The page contains a text input field with the placeholder "Enter your name:" and the value "mrcetcse". To the right of the input field is a blue button labeled "Add cookie".

A screenshot of a Microsoft Internet Explorer browser window. The address bar shows "localhost:8080/jsp/cookie1.jsp". Below the address bar is a button labeled "List Cookies".

A screenshot of a Microsoft Internet Explorer browser window. The address bar shows "localhost:8080/jsp/cookie2.jsp". The page displays a large heading "List of Cookies" and a table showing two cookies:

Cookie Name	Cookie value
firstname	mrcetcse
JSESSIONID	9AA6DDB601FCBACBE8AE79EAEEC1A8AD

**WEEK - 10: Implement the web applications with Database using
(a) PHP, (b) Servlets and (c) JSP.**

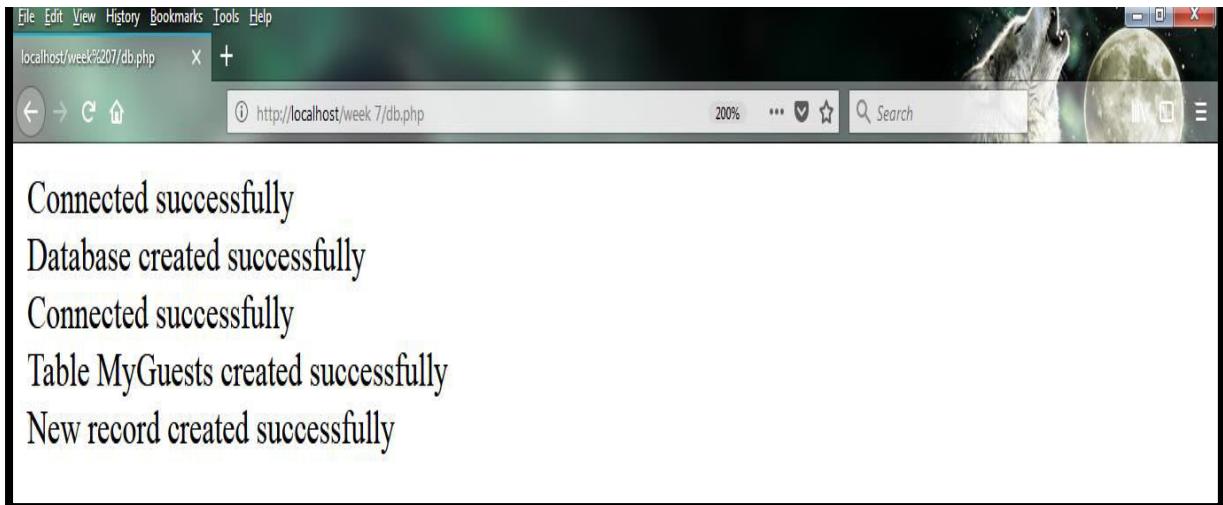
a) A user validation web application, where the user submits the login name & password to the server. The name and password are checked against the data already available in Database and if the data matches, a successful login page is returned. Otherwise failure message is shown to the user.

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')";
```

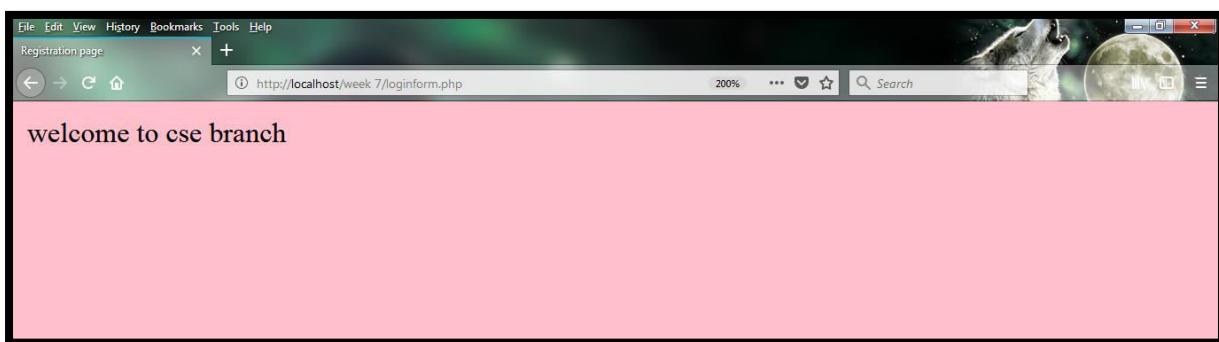
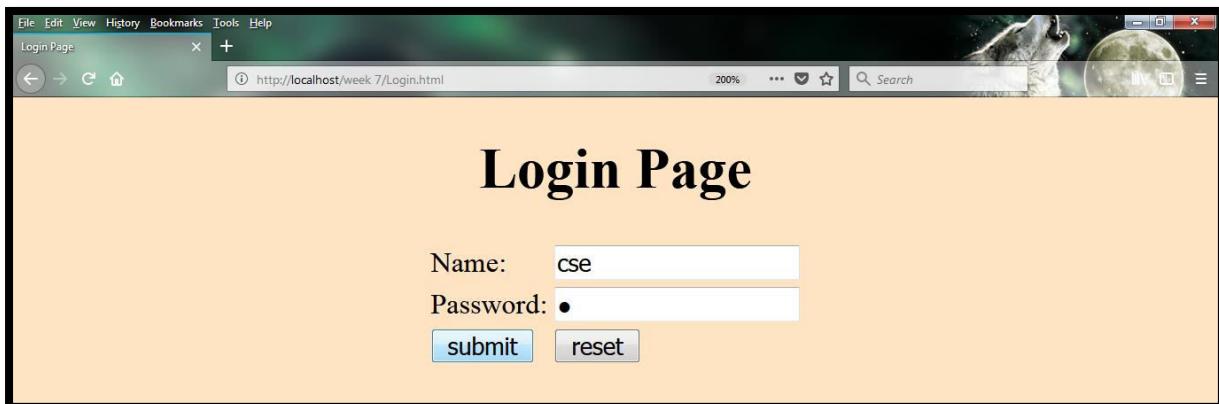
```
if (mysqli_query($conn, $sql)) {  
echo "New record created successfully";  
}  
else  
{  
echo "Error: " . $sql . "<br>" . mysqli_error($conn);  
}  
mysqli_close($conn);  
?>  
</body>  
</html>
```

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:

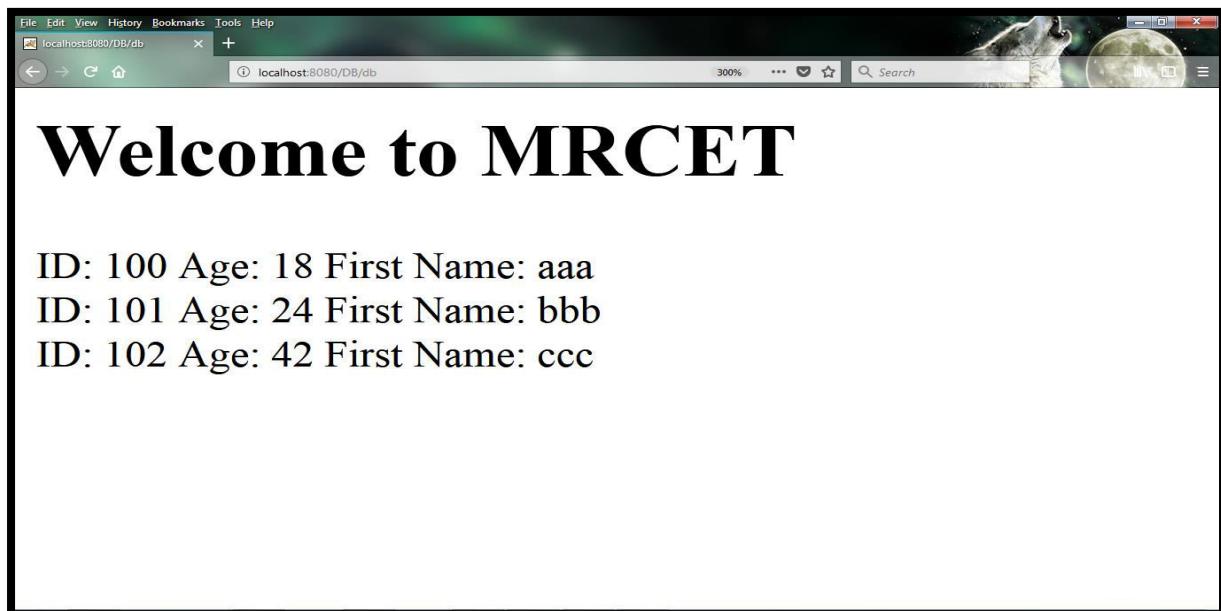
(b) USING SERVLET**DBExample.java**

```
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>");
    }
}
```

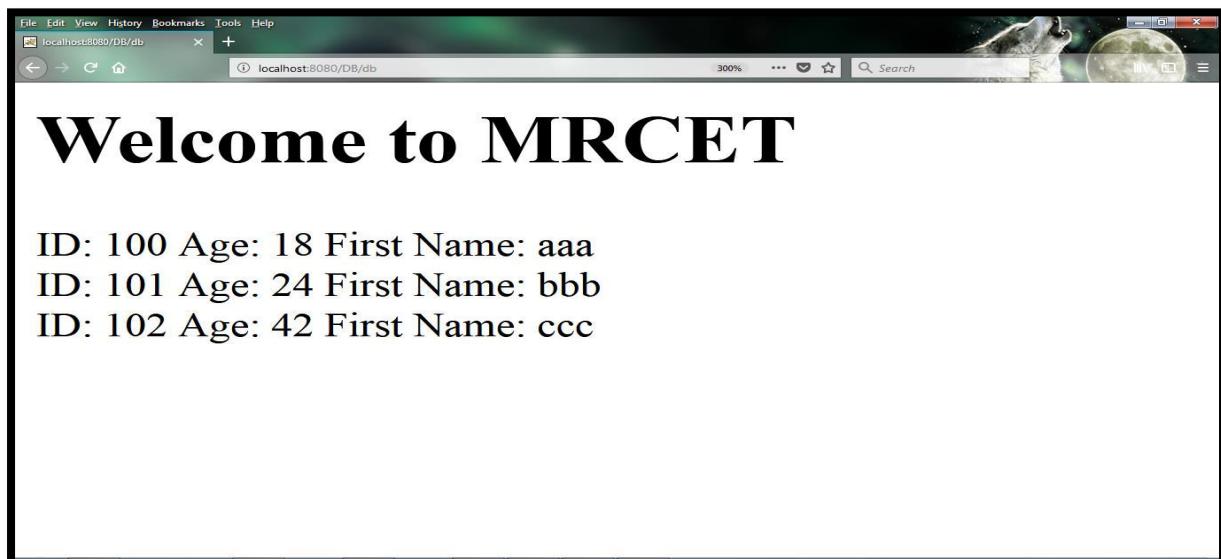
web.xml:

```
<?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:

(c) USING JSP

```
import java.sql.*;
class MysqlCon{
public static void main(String args[]){
try{
Class.forName("com.mysql.jdbc.Driver");
Connection con=DriverManager.getConnection(
"jdbc:mysql://localhost:3306/sonoo","root","root");
//here sonoo is database name, root is username and password
Statement stmt=con.createStatement();
ResultSet rs=stmt.executeQuery("select * from emp");
while(rs.next())
System.out.println(rs.getInt(1)+" "+rs.getString(2)+" "+rs.getString(3));
con.close();
}catch(Exception e){ System.out.println(e);}
}
}
```

OUTPUT:

WEEK - 11:**Modify the above PHP program to use an xml instead of database****AIM:** To design an application that verifies user details from an xml using PHP.**PROGRAM:****db.php****Userlogin.xml:**

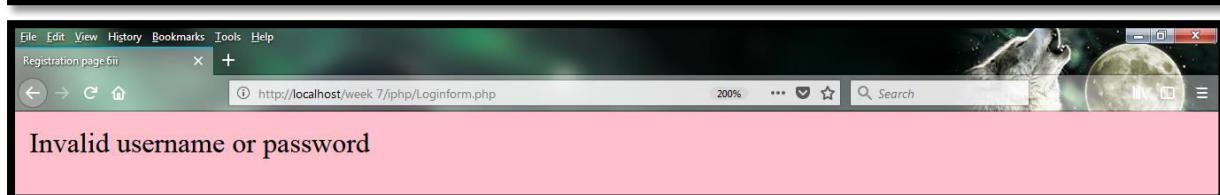
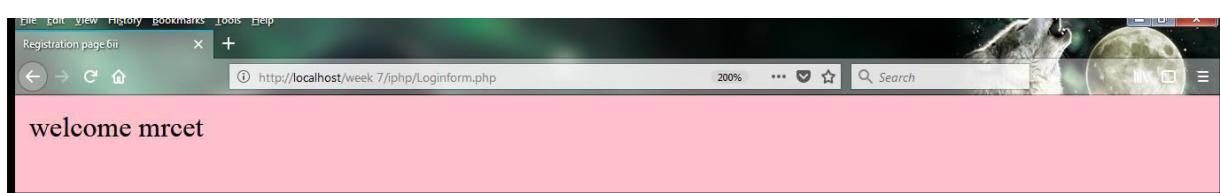
```
<Authentication>
  <user>
    <username>cse</username>
    <password>5</password>
  </user>
  <user>
    <username>mrcet</username>
    <password>mlrd</password>
  </user>
</Authentication>
```

Loginform.php:

```
<html>
<head>
  <title> Registration page </title>
</head>
<body bgcolor="pink">
<?php
  $myxml=simplexml_load_file("Userlogin.xml");
  $username=$_POST['uname'];
  $password=$_POST['upwd'];
  $xmlusername="";
  $xmlpassword="";
  for($i=0;$i<count($myxml);$i++)
  {
    $xmlusername=$myxml->user[$i]->username;
    $xmlpassword=$myxml->user[$i]->password;
    if($xmlusername==$username && $xmlpassword==$password)
    {
      echo "welcome $username";
      die();
    }
  }
  echo "Invalid username or password";
?>
</body>
</html>
```

Loginform.php:

```
<html>
  <head> <title> Login Page </title> </head>
<body bgcolor="bisque">
<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>
```

OUTPUT:

WEEK - 12:

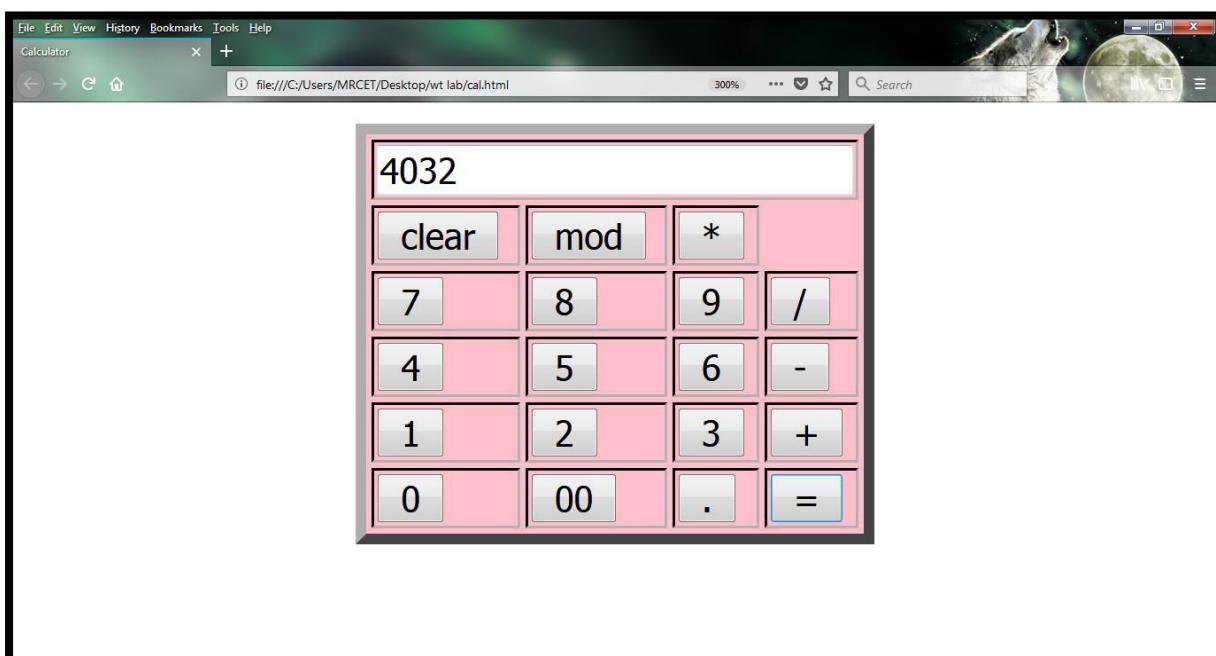
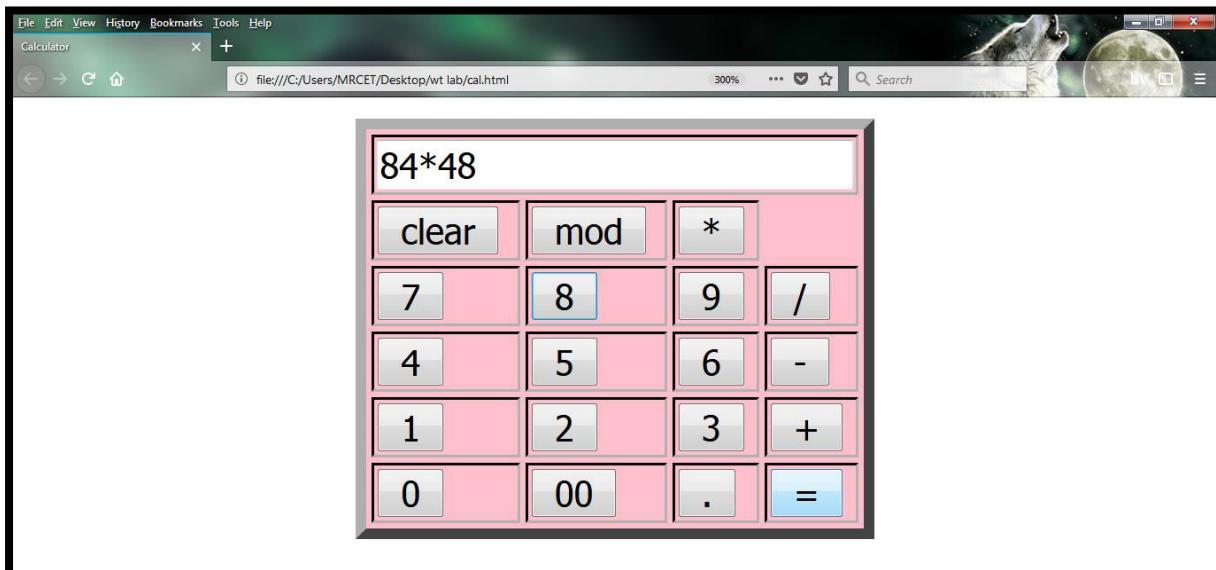
Write a program to design a simple calculator using (a) JavaScript (b) PHP (c) Servlet and (d) JSP.

(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

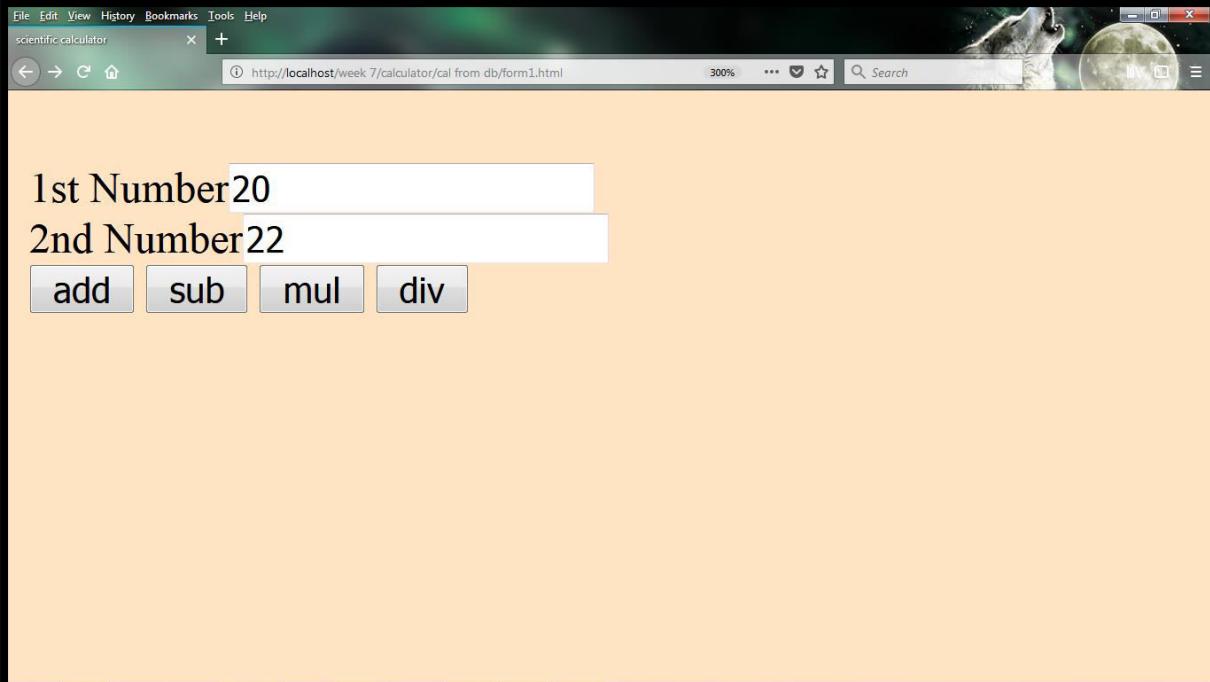
AIM: To design an application that works as a simple calculator using PHP.

PROGRAM:**form.html**

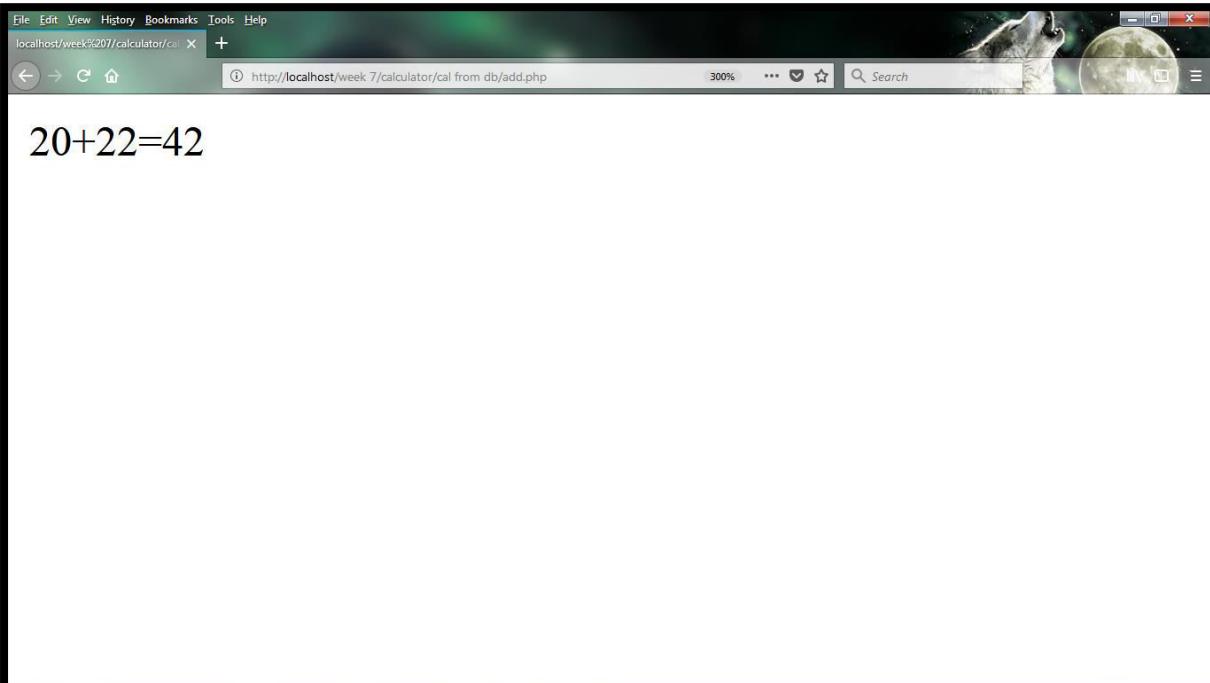
```
<html>
<head> <title> scientific calculator </title> </head>
<body bgcolor="bisque"> <br>
<form name='f1' action='add.php' method='post'>
1st Number<input type='text' name='t1'><br>
2nd Number<input type='text' name='t2'><br>
<input type='submit' name='add' value='add'>
<input type='submit' name='sub'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

A screenshot of a web browser window titled "scientific calculator". The URL in the address bar is http://localhost/week_7/calculator/cal from db/form1.html. The page contains two input fields: "1st Number" with value "20" and "2nd Number" with value "22". Below the inputs are four buttons: "add", "sub", "mul", and "div". The background of the page is orange.



A screenshot of a web browser window titled "localhost/week%207/calculator/cal". The URL in the address bar is http://localhost/week_7/calculator/cal from db/add.php. The page displays the result of the addition: $20+22=42$.

(c) USING SERVLETS

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

DESCRIPTION:

In java with using 2 operant'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>Calculator</servlet-name>  
    <servlet-class>Cal</servlet-class>  
</servlet>  
<servlet-mapping>  
    <servlet-name>Calculator</servlet-name>  
    <url-pattern>/calc</url-pattern>  
</servlet-mapping>  
</web-app>
```

Output:

Please Enter Two Numbers :::

Number: 25

+ -

Number: 24

calculate

Please Enter Two Numbers :::

Number: 25

* -

Number: 24

calculate

Addition :::49

Multiplication :::600

(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("Subtraction 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:

The screenshot shows a web browser window titled "calculator". The address bar displays "localhost:8080/jsp/calculator.html". The main content area is titled "Basic Calculator". It contains two input fields: "Number 1" with value "54" and "Number 2" with value "44". Below these are four radio buttons for operators: "+", "-", "*", and "/". A blue "submit" button is located at the bottom.

The screenshot shows a web browser window titled "calculator". The address bar displays "localhost:8080/jsp/calculator.jsp?num1=54&num2=44&r1=Add". The main content area displays the message "Addition is: 98".

The screenshot shows a web browser window titled "calculator". The address bar displays "localhost:8080/jsp/calculator.html". The main content area is titled "Basic Calculator" and contains the same form fields as the first screenshot: "Number 1" (54), "Number 2" (44), operator radio buttons, and a "submit" button.

The screenshot shows a web browser window titled "calculator". The address bar displays "localhost:8080/jsp/calculator.jsp?num1=54&num2=44&r1=Sub". The main content area displays the message "Substraction is: 10".