

WEB TECHNOLOGIES

LABORATORY MANUAL

**B.TECH
(III YEAR – I SEM)
(2018-2019)**



DEPARTMENT OF INFORMATION TECHNOLOGY

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

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

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

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

DEPARTMENT OF INFORMATION TECHNOLOGY

VISION

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

MISSION

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

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO1 – ANALYTICAL SKILLS

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

PEO2 – TECHNICAL SKILLS

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

PEO3 – SOFT SKILLS

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

PEO4 – PROFESSIONAL ETHICS

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

PROGRAM SPECIFIC OUTCOMES (PSOs)

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

1. **Fundamentals and critical knowledge of the Computer System**:- Able to Understand the working principles of the computer System and its components , Apply the knowledge to build, asses, and analyze the software and hardware aspects of it .

2. **The comprehensive and Applicative knowledge of Software Development**: Comprehensive skills of Programming Languages, Software process models, methodologies, and able to plan, develop, test, analyze, and manage the software and hardware intensive systems in heterogeneous platforms individually or working in teams.

3. **Applications of Computing Domain & Research**: Able to use the professional, managerial, interdisciplinary skill set, and domain specific tools in development processes, identify the research gaps, and provide innovative solutions to them.

PROGRAM OUTCOMES (POs)

Engineering Graduates should possess the following:

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



DEPARTMENT OF INFORMATION TECHNOLOGY

GENERAL LABORATORY INSTRUCTIONS

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

HEAD OF THE DEPARTMENT

PRINCIPAL

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S.No	LIST OF PROGRAMS	Page no
1.	WEEK:1 Write a HTML Program to design the following static web pages requires for a college website i) Home Page ii) Login Page iii) Catalogue Page	1
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3.	WEEK:3 Write a JavaScript to validate the following fields Name 2. Password 3. Email Id 4. Phone Number	10
4.	WEEK: 4 Design a web page using CSS (Cascading Style Sheets) which includes different font and styles.	15
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7.	WEEK:7 Installation of APACHE TOMCAT (Web) Server.	45
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WEEK-1

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

1) HOME PAGE:

The static home page must contain three frames.

Top frame: Logo and the college name and links to Home page, Login page, Registration page, Catalogue page and Cart page (the description of these pages will be given below).

Left frame: At least four links for navigation, which will display the catalogue of respective links.

For e.g: When you click the link “CSE” the catalogue for CSE Books should be displayed in the Right frame.

Right frame: The pages to the links in the left frame must be loaded here. Initially this page contains description of the web site.

1) Save as **homepage.html**

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<HEAD>
<TITLE> Home Page </TITLE>
</HEAD>
<frameset rows="21%,79%">
<frame src="frame1.html" scrolling="no" noresize="noresize"/>
<frameset cols="20%,80%">
<frame src="frame2.html" scrolling="no" noresize="noresize">
<frame src="home.html" noresize="noresize" name="result">
</frameset>
</frameset>
</HTML>
```

Save as **frame1.html**

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<HEAD>
<TITLE> frame-1 </TITLE>
<style type="text/css">
th
{
background-color:rgb(59,156,150);
font-size:25px;
font-family:Microsoft Sans Serif;
letter-spacing:7px;
word-spacing:10px;
text-align:center;
color:white;
}
td
{
background-color:rgb(59,156,150);
font-size:20px;
height:25px;
text-align:center;
}
td
{
```

```
border:1px solid white;
}
a:visited{color:#003333}
a:hover{color:white}
a:active{color:red}
a
{
text-decoration:none;
color:#003333;
}
body
{
background-color:rgb(59,156,150);
}
</style>
</HEAD>
<BODY>
<table border="0" width="100%">
<tr>
<th colspan="5" valign="bottom">
<marquee style="font-size:16px;font-family:Castellar;">
WELCOME TO MRCET</marquee></th>
</tr>
<tr>
<td><a href="home.html" target="result"><b>HOME</b></a></td>
<td><a href="login.html" target="result"><b>LOGIN</b></a></td>
<td><a href="registration.html"
target="result"><b>REGISTRATION</b></a></td> <td><a href="catalouge.html"
target="result"><b>CATALOUGE</b></a></td> <td><a href="cart.html"
target="result"><b>CART</b></a></td> </tr>
</BODY>
</HTML>
```

Save as **frame2.html**

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<HEAD>
<TITLE> frame-2 </TITLE>
<style type="text/css">
body
{
background-color:#FFFFFF;
}
a
{
text-decoration:none;
font-size:25px;
font-weight:bold;
color:rgb(59,156,150);
}
ul
{
list-style-image:url('bullet.png');
position:relative;
left:20px;
}
a:link{color:rgb(59,156,150)}
```

```

a:visited{color:#003333}
a:hover{color:#C0C0C0}
a:active{color:red}
</style>
</HEAD>
<BODY>
<ul>
<table border="0">
<tr><td>
<li><a href="cse.html" target="result"
>CSE</a><br/></li></td></tr> <tr><td>
<li><a href="it.html" target="result">IT</a><br/></li></td></tr>
<tr><td>
<li><a href="ece.html"
target="result">ECE</a><br/></li></td></tr> <tr><td>
<li><a href="mech.html" target="result">MECH</a><br/></li></td></tr>
</table>
</ul>
<!-- <p><marquee>New Updates</marquee></p-->
</BODY>
</HTML>

```

Save as **home.html**

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<html>
<head>
<title> home </title>
<style type="text/css">
p
{
color:rgb(59,156,150);
text-align:center;
}
</style>
</head>

<body>
<br/><hr/>
<p style="text-align:justify">Malla Reddy College of Engineering & Technology (MRCET) is a
constituent College of Malla Reddy Group of Institutions (MRGI) established in 2004, Approved
by AICTE, New Delhi and Affiliated to JNT University, Hyderabad. <br/> <br/>

```

The College offers Engineering courses (B.Tech.) in ECE, CSE, AE, and IT disciplines and Post Graduate (M.Tech.) courses in ECE, CSE and AE specializations in addition to MBA and MCA programmes. The College campus with its aboriculture and horticulture is situated away from the hustle and bustle of the city provides a serene and tranquil atmosphere, which is conducive to both teaching and learning processes. </p>

```

<hr/>
</body>
</html>

```

2) Save as **login.html**

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<html>
<head>
<title> login </title>

```

```
<style type="text/css">
div
{
left:20px;
}
td
{
color:rgb(59,156,150);
}
</style>
</head>
<body>
<form action="http://www.google.co.in" method="post">
<div>
<br/><br/>
<div align="center">
<table border="0">
<tr>
<td>Login:</td>
<td><input type="text" name="login_name"></td>
</tr>
<tr>
<td>Password:</td>
<td><input type="password" name="password"></td>
</tr>
<tr>
<td><input type="submit" name="submit"
value="Login"></td> <td><input type="reset"
name="reset"></td> </tr>
</table>
</div>
</body>
</html>
```

3) Save as **catalouge.html**

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<html>
<head>
<title> catalouge </title>
<style type="text/css">
table,tr,td,th
{
border:1px solid black;
color:rgb(59,156,150);
}
b{color:black}
.bs
{
width:120px;
height:30px;
}
</style>
</HEAD>
<BODY>
<table width="100%">
<tr>
<th width="25%>Snap Cover</th>
```

```
<th width="25%">Details</th>
<th width="25%">Cost</th>
<th width="25%">Select</th>
</tr>

<tr div align="center">
<td></div></td>
<td><p><b>Book:</b>Head First Java Script</p>
<p><b>Author:</b>Kathy Sierra and Bert
Bates</p> <p><b>Publication:</b>O'Reilly
Media</p></td> <td>$4.5</td>
<td><input class="bs" type="button" name="b1" value="Add to
cart"/></td> </tr>

<tr div align="center">
<td></td>
<td><p><b>Book:</b>Head First Servlets</p>
<p><b>Author:</b> Bryan Basham, Kathy Sierra and Bert Bates</p>
<p><b>Publication:</b>O'Reilly Media</p>
</td>
<td>$4.5</td>
<td><input class="bs" type="button" name="b2" value="Add to
cart"/></td> </tr>

<tr div align="center">
<td></div></td> <td><p><b>Book:</b>Head
First PHP & MySQL</p> <p><b>Author:</b>Lynn Beighley
Michael Morrison </p> <p><b>Publication:</b>O'Reilly
Media</p></td> <td>$4.5</td>
<td><input class="bs" type="button" name="b3" value="Add to cart"/></td>
</tr>
<tr div align="center">
<td></div></td>
<td><p><b>Book:</b>Head First
WebDesign</p> <p><b>Author:</b>Ethan
Watrall </p> <p><b>Publication:</b>O'Reilly
Media</p></td> <td>$4.5</td>
<td><input class="bs" type="button" name="b4" value="Add to
cart"/></td> </tr>
<tr div align="center">
<td></div></td>
<td><p><b>Book:</b>Head First CSharp</p>
<p><b>Author:</b>Andrew Stellman </p>
<p><b>Publication:</b>O'Reilly Media</p></td>
<td>$4.5</td>
<td><input class="bs" type="button" name="b5" value="Add to cart"/></td>
</tr>
</table>
</body>
</html>
```

WELCOME TO MRCET
MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY

[HOME](#)[LOGIN](#)[REGISTRATION](#)[CATALOUGE](#)[CART](#)

- CSE
- IT
- ECE
- MECH

Malla Reddy College of Engineering & Technology (MRCET) is a constituent College of Malla Reddy Group of Institutions (MRGI) established in 2004, Approved by AICTE, New Delhi and Affiliated to JNT University, Hyderabad.

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Exercise

I) Develop static pages of any company using only HTML. The website should consists the following pages

1. Home page
2. Registration
3. User login
4. User Profile Page
5. Product catalog

Signature of the Faculty

WEEK-2

4) Save as **cart.html**

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<html>
<head>
<title> cart </title>
<style type="text/css">
table,tr,th,td
{
border:1px solid black;
color:rgb(59,156,150);
}
</style>
</head>
<body>
<table border="1" width="100%">
<tr><th>Book Name</th> <th>Price</th> <th>Quantity</th><th>Amount</th>
</tr>
<tr><td>Head First Java Script</td><td>$4.5</td>
<td>2</td><td>$9</td>
</tr>
<tr><td>Head First PHP & MYSQL</td><td>$4.5</td>
<td>1</td><td>$4.5</td>
</tr>
<tr>
<td colspan="3" align="right"> Total Amount</td>
<td>13.5</td>
</tr>
</table>
</body>
</html>
```

5) Save as **registration.html**

```
<html>
<head><title>Registration Page</title>
<style type="text/css">
b
{
color:rgb(59,156,150);
}
</style>
</head>
<body>
<h1 align="center">Registration</h1>
<form name="demo" onsubmit="return validateForm(this)" action="#">

<div align="center">
<table>
<tr>
<td><b>User Name:</b></td>
<td><input type="text" name="username" size="35"></td>
</tr>
<tr>
```

```
<td><b>Password:</b></td>
<td><input type="password" name="pwd" size="35"></td>
</tr>
<tr>
<td><b>E-mail:</b></td>
<td><input type="text" name="email" size="35"></td>
</tr>
<tr>
<td><b>Mobile number:</b></td>
<td><input type="text" name="phone" size="35"></td>
</tr>
<tr>
<td><b>Gender:</b></td>
<td><input type="radio" name="gender"/>Male</td>
</tr>
<tr>
<td></td>
<td><input type="radio" name="gender"/>Female</td>
</tr>
<tr>
<td><b>Date of Birth:</b></td>
<td>
<select>
<option selected>Date</option>
<option>1</option><option>2</option><option>3</option><option>4</option>
<option>5</option><option>6</option><option>7</option><option>8</option>
<option>9</option><option>10</option><option>11</option><option>12</option>
<option>13</option><option>14</option><option>15</option><option>16</option>
<option>17</option><option>18</option><option>19</option><option>20</option>
<option>21</option><option>22</option><option>23</option><option>24</option>
<option>25</option><option>26</option><option>27</option><option>28</option>
<option>29</option><option>30</option><option>31</option>
</select>
<select>
<option selected>Month</option>
<option>January</option><option>February</option><option>March</option>
<option>April</option><option>May</option><option>June</option><option>July</option>
<option>Augest</option><option>September</option><option>October</option>
<option>November</option><option>December</option>
</select>
<select>
<option selected>Year</option>
<option>1988</option><option>1989</option>
<option>1990</option><option>1991</option>
<option>1992</option><option>1993</option>
<option>1994</option>
</select>
</td>
</tr>
<tr>
<td><b>Languages:</b></td>
<td><input type="checkbox" name="telugu"/>Telugu</td>
</tr>
<tr>
<td></td>
<td><input type="checkbox" name="english"/>English</td>
</tr>
```

```
<tr>
<td></td>
<td><input type="checkbox" name="hindi"/>Hindi</td>
</tr>
<tr>
<td><b>Address:</b></td>
<td><textarea cols="27" rows="5"></textarea></td>
</tr>
<tr>
<td>&nbsp;</td>
<td><input type="submit" name="Submit" value="Send"></td>
</tr>
</table>
</div>
</body>
</html>
```

Exercise

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

1) HOME PAGE:

The static home page must contain three frames.

Top frame: Logo and the company name and links to Home page, Login page, sign up page,

Left frame: At least four links for navigation, which will display the catalogue of respective

links.(like Clothing & Accessories,Mobiles and Tablets, books,Computer & Accessories)

Right frame: The pages to the links in the left frame must be loaded here. Initially this page contains

description of the web site.

Signature of the Faculty

WEEK 3:**VALIDATION:**

Write JavaScript to validate the following fields of the above registration page.

1. 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. Phone number (Phone number should contain 10 digits only).

Save as **registration.html**

```
<html>
<head><title>Registration Page</title>
<style type="text/css">
b
{
color:rgb(59,156,150);
}
</style>
</head>
<body>
<h1 align="center">Registration</h1>
<form name="demo" onsubmit="return validateForm(this)" action="#">
<div align="center">
<table>
<tr>
<td><b>User Name:</b></td>
<td><input type="text" name="username" size="35"></td>
</tr>
<tr>
<td><b>Password:</b></td>
<td><input type="password" name="pwd" size="35"></td>
</tr>
<tr>
<td><b>E-mail:</b></td>
<td><input type="text" name="email" size="35"></td>
</tr>
<tr>
<td><b>Mobile number:</b></td>
<td><input type="text" name="phone" size="35"></td>
</tr>
<tr>
<td><b>Gender:</b></td>
<td><input type="radio" name="gender"/>Male</td>
</tr>
<tr>
<td></td>
<td><input type="radio" name="gender"/>Female</td>
</tr>
<tr>
<td><b>Date of Birth:</b></td>
<td>
```

```
<select>
<option selected>Date</option>
<option>1</option><option>2</option><option>3</option><option>4</option>
<option>5</option><option>6</option><option>7</option><option>8</option>
<option>9</option><option>10</option><option>11</option><option>12</option>
<option>13</option><option>14</option><option>15</option><option>16</option>
<option>17</option><option>18</option><option>19</option><option>20</option>
<option>21</option><option>22</option><option>23</option><option>24</option>
<option>25</option><option>26</option><option>27</option><option>28</option>
<option>29</option><option>30</option><option>31</option>
</select>
<select>
<option selected>Month</option>
<option>January</option><option>February</option><option>March</option>
<option>April</option><option>May</option><option>June</option><option>July</option>
<option>August</option><option>September</option><option>October</option>
<option>November</option><option>December</option>
</select>
<select>
<option selected>Year</option>
<option>1988</option><option>1989</option>
<option>1990</option><option>1991</option>
<option>1992</option><option>1993</option>
<option>1994</option>
</select>
</td>
</tr>
<tr>
<td><b>Languages:</b></td>
<td><input type="checkbox" name="telugu"/>Telugu</td>
</tr>
<tr>
<td></td>
<td><input type="checkbox" name="english"/>English</td>
</tr>
<tr>
<td></td>
<td><input type="checkbox" name="hindi"/>Hindi</td>
</tr>
<tr>
<td><b>Address:</b></td>

<td><textarea cols="27" rows="5"></textarea></td>
</tr>
<tr>
<td>&nbsp;</td>
<td><input type="submit" name="Submit" value="Send"></td>
</tr>
</table>
</div>
</form>
<script language="javascript">
function validateForm(theform)
{
var reason = "";
reason += validateusername(theform.username);
```

```
reason += validatepassword(theform.pwd);
reason += validateemail(theform.email);
reason += validatephone(theform.phone);
if (reason != "") {
}
alert("Some fields need correction:\n" + reason);
return false;
}
return true;
}
function validateusername(fld)
{
var error = "";
var illegalchars = new RegExp("^[a-zA-Z_.]+$");
if (fld.value == "") {
}
fld.style.background = 'red';
error = "You didn't enter a username.\n";
}
else if ((fld.value.length < 6) || (fld.value.length > 18))
{
fld.style.background = 'red';
error = "The username is the wrong length.\n";
}
else if (!(illegalchars.test(fld.value)))
{
fld.style.background = 'red';
error = "The username contains illegal characters.\n";
}
else
{
fld.style.background = 'White';
}
return error;
}

function validatepassword(fld)
{
var error = "";
if (fld.value == "") {
}
fld.style.background = 'red';
error = "You didn't enter a password.\n";
}
else if ((fld.value.length < 6) || (fld.value.length > 18))
{
fld.style.background = 'red';
error = "The password is the wrong length. \n";
}
else
{
fld.style.background = 'White';
}
return error;
}

function validateemail(fld)
{
```

```
var error="";
var sr = new RegExp("^[a-zA-Z0-9_.]+@[a-zA-Z]+\.[a-zA-Z]{2,3}$");
if (fld.value == "") {
{
fld.style.background = 'red';
error = "You didn't enter an email address.\n";
}
else if (!(sr.test(fld.value)))
{
fld.style.background = 'red';
error = "Please enter a valid email address.\n";
}
else
{
fld.style.background = 'White';
}
return error;
}
function validatephone(fld)
{
var error = "";
if (fld.value == "") {
{
error = "You didn't enter a phone number.\n";

fld.style.background = 'red';
}
else if (!(fld.value.length == 10))
{
error = "The phone number is the wrong
length.\n"; fld.style.background = 'red'; }

return error;
}
</script>
</body>
</html>
```

The screenshot shows a web application for 'MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY'. The main menu includes 'HOME', 'LOGIN', 'REGISTRATION', 'CATALOGUE', and 'CART'. On the left, there's a sidebar with radio buttons for course selection: CSE, IT, ECE, and MECH, with CSE selected. The main content area is titled 'Registration'. A modal dialog box is open, displaying validation errors: 'Some fields need correction.', 'The password is the wrong length.', 'Please enter a valid email address.', and 'The phone number is the wrong length.' An 'OK' button is at the bottom of the dialog. Below the dialog, the registration form fields are visible: 'Date of Birth' (dropdown menus for day, month, and year), 'Languages' (checkboxes for Telugu, English, and Hindi, with English checked), and an 'Address' field containing 'Hyderabad'. A 'Send' button is at the bottom right of the form.

Exercise

- 1)Validate the Registration, User login, and payment by credit card pages using java script.
- 2)write a javascript which asks the user to enter two integers, obtains the numbers from the user and outputs html text that displays the larger number followed by the words "LARGER NUMBER" in an information message dialog.if the numbers are equal then output HTML text as "EQUAL NUMBR".

Signature of the Faculty

WEEK-4:

Design a web page using CSS (Cascading Style Sheets) which includes the following:

1) Use different font, styles:

In the style definition you define how each selector should work (font, color etc.).

Then, in the body of your pages, you refer to these selectors to activate the styles.

Save as **week4.html**

```
<html>
<head>
<title> week4 </title>
<style type="text/css">
a
{
text-decoration:none;
font-size:20px;
color:#006600;
}
</style>
</head>
<body>
<table border="0">
<tr><td>
<a href="week4-1.html">1) Use different font, styles</a>
</td></tr>
<tr><td>
<a href="week4-2.html">2) Set a background image for both the page and single elements on
the page</a>
</tr></td>
<tr><td>
<a href="week4-3.html">3) Control the repetition of the image with the background
property</a>
</tr></td>
<tr><td>
<a href="week4-4.html">4) Define styles for links as a:link a:visited a:active
a:hover</a>
</tr></td>
<tr><td>
<a href="week4-5.html">5) Work with layers </a>
</tr></td>
<tr><td>
<a href="week4-6.html">6) Add a customized cursor</a>
</tr></td>
</table>
</body>
</html>
```

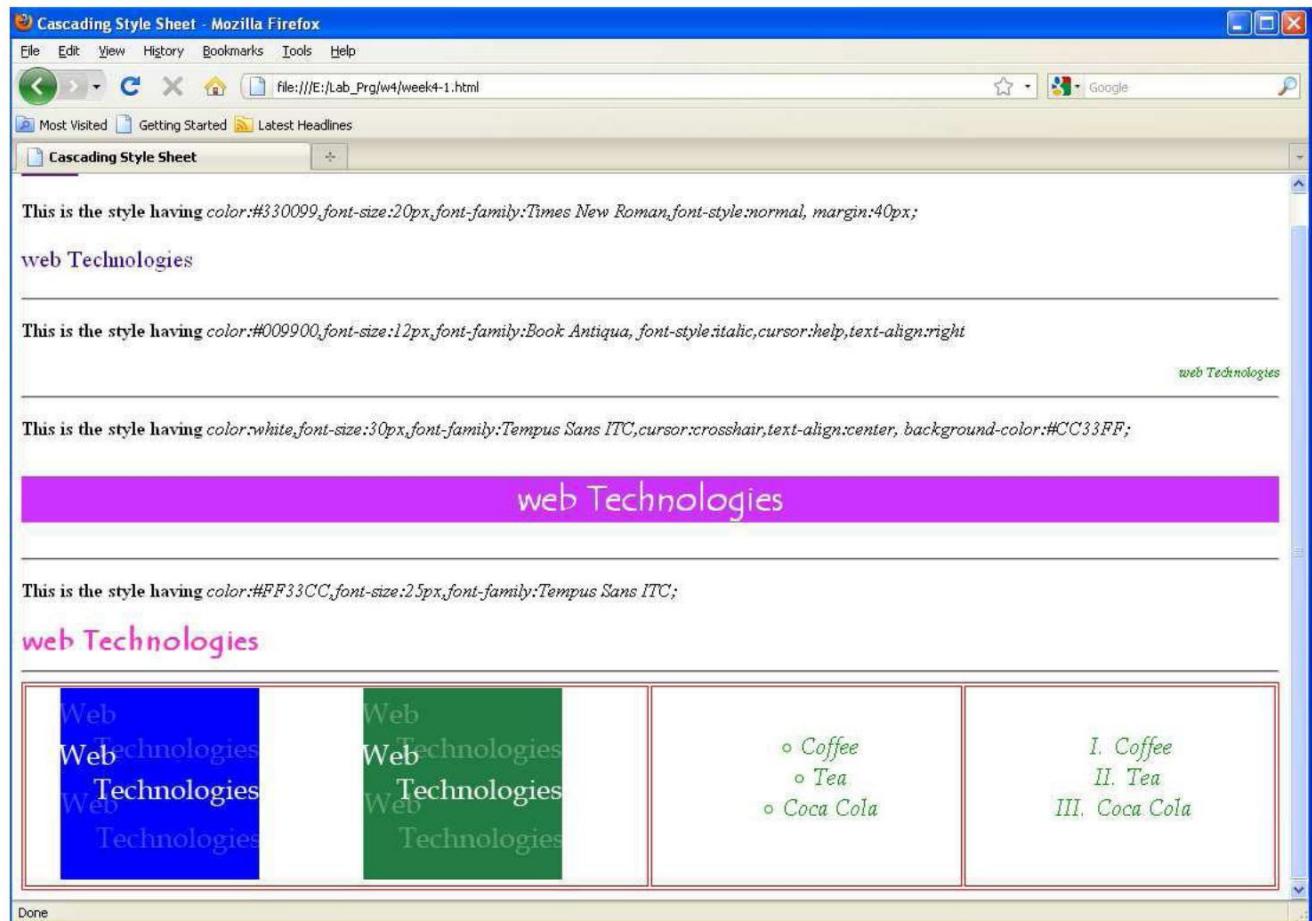
Save as **week4-1.html**

```
<html>
<head>
<title> Cascading Style Sheet </title>
<style type="text/css">
```

```
.s1
{
color:#330099;
font-size:20px;
font-family:Times New Roman;
font-style:normal;
}
.s2
{
color:#009900;
font-size:12px;
font-family:Book Antiqua;
font-style:italic;
cursor:help;
text-align:right;
}
.s3
{
color:white;
font-size:30px;
font-family:Tempus Sans ITC;
cursor:crosshair;
text-align:center;
background-color:#CC33FF;
}
.s4
{
color:#FF33CC;
font-size:25px;
font-family:Tempus Sans ITC;
}
.img1
{
cursor:crosshair;
}
.img2
{
cursor:help;
}
ul.a {list-style-type:circle;}
ol.b {list-style-type:upper-roman;}
```



```
li
{
color:#009900;
font-size:20px;
font-family:Book Antiqua;
font-style:italic;
text-align:center;
}
table, td, th
{
border:1px solid red;
}
</style>
```

- 2) Set a background image for both the page and single elements on the page. Save as **week4-2.html**

```

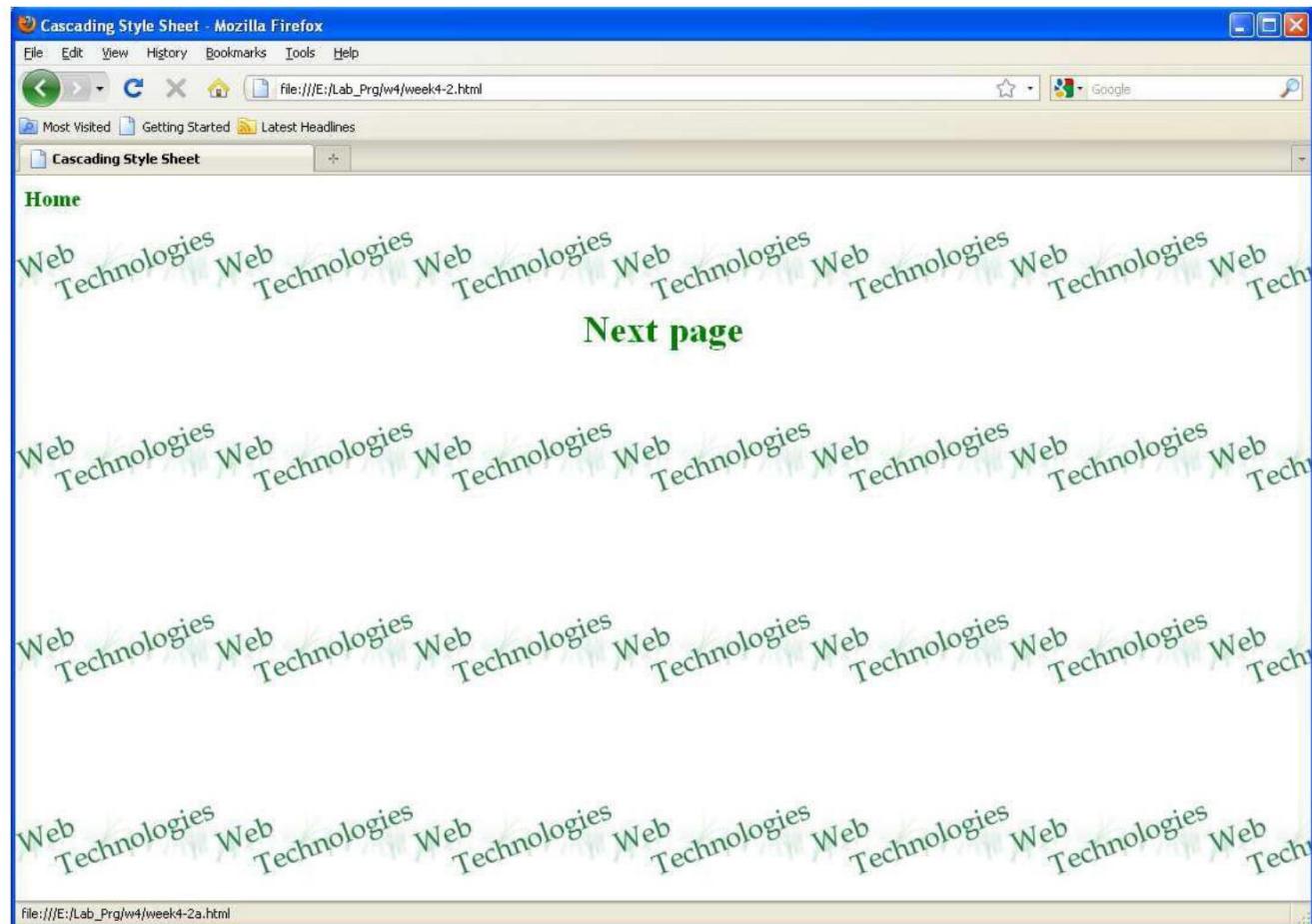
<html>
<head>
<title> Cascading Style Sheet </title>
<style type="text/css">
body
{
background-image:url(white1.png);
}
a
{
color:green;
text-decoration:none;
}
</style>
</head>
<body>
<h3><a href="week4.html">Home</a></h3>
<a href="week4-2a.html"><center>Next page</center></a>
</body>

```

```
</html>
```

Save as **week4-2a.html**

```
<html>
<head>
<title> Cascading Style Sheet</title>
<style type="text/css">
body
{
background-image:url(white1.png);
}
a
{
color:green;
text-decoration:none;
}
</style>
</head>
<body>
<a href="week4-2.html"><center>Home page</center></a>
</body>
</html>
```



3) Control the repetition of the image with the background-repeat property.
As background-repeat: repeat titles the image until the entire page is filled, just like an ordinary background image in plain HTML.

Save as **week4-3.html**

```
<html>
<head>
<title> Cascading Style Sheet </title>
<style type="text/css">
a
{
color:green;
text-decoration:none;
font-size:20px;
}
</style>
</head>
<body>

<h3><a href="week4.html">Home</a></h3>
<table border="0" width="100%">
<tr>
<td width="25%">

<a href="bgcolor.html">BackGround-Color</a>
</td>
</tr>
<tr>
<td width="25%">
<a href="bgimage.html">BackGround-Image</a>
</td>
</tr>
<tr>
<td width="25%">
<font color="red">BackGround-Repeat</font>
</td>
</tr>
<tr>
<td width="25%">
<a href="bgrepeatx.html">BackGround-Repeat-
X</a> </td>
<td width="25%">
<a href="bgrepeaty.html">BackGround-Repeat-
Y</a> </td>
<td width="25%">
<a href="bgnorepeaty.html">BackGround-NoRepeat</a>
</td>
</tr>
<tr>
<td width="25%">
<font color="red">BackGround-Attachment</font>
</td>
</tr>
<tr>
<td width="25%">
```

```
<a href="bgattachment-fixed.html">BackGround-Attachment-Fixed</a> </td>
<td width="25%">
<a href="bgattachment-scroll.html">BackGround-Attachment-scroll</a>
</td>
</tr>
<tr>
<td width="25%">
<font color="red">BackGround-Position</font>
</td>
</tr>
<tr>
<td width="25%">

<a href="bgtopcenter.html">BackGround-Position Top Center</a> </td>
<td width="25%">
<a href="bgtopright.html">BackGround-Position Top Right</a> </td>
<td width="25%">
<a href="bgpxy.html">BackGround-Position Position-x(250) Position-y(300)</a>
</td>
</tr>
</table>
</body> </html>
```

Save as **bgcolor.html**

```
<html>
<head>
<title> bgcolor</title>
<style type="text/css">
body
{
background-color:green;
}
p
{
color:white;
font-size:20px;
text-align:center;
}
a
{
color:white;
text-decoration:none;
}
</style>
</head>
<body>
<a href="week4-3.html">Home</a>
<br/>
<p>This page having background color <i>green</i></p>
</body>
</html>
```

Save as **bgimage.html**

```
<html>
<head>
<title>bgimage</title>

<style type="text/css">
body
{
background-image:url(white2.png);
}
a
{
color:green;
text-decoration:none;
}
</style>
</head>
<body>
<a href="week4-3.html">Home</a>
</body>
</html>
```

Save as bgrepeatx.html

```
<html>
<head>
<title> bgrepeatx </title>

<style type="text/css">
body
{
background-image:url(white2.png);
background-repeat:repeat-x;
}
a
{
color:green;
text-decoration:none;
}
</style>
</head>
<body>
<a href="week4-3.html">Home</a>
</body>
</html>
```

Save as **bgrepeaty.html**

```
<html>
<head>
<title> bgrepeatx </title>
<style type="text/css">
body
{
background-image:url(white2.png);
background-repeat:repeat-y;
```

```
    }
    a
    {
        color:green;
        text-decoration:none;
    }
</style>
</head>
<body>
<a href="week4-3.html">Home</a>
</body>
</html>
```

Save as **ignorerepeat.html**

```
<html>
<head>
<title> bgrepeaxt </title>
<style type="text/css">
body
{
background-image:url(white2.png);
background-repeat:no-repeat;
}
a
{
color:green;
text-decoration:none;
}
</style>
</head>
<body>
<a href="week4-3.html">Home</a>
</body>
</html>
```

Save as **bgattachment-fixed.html**

Save as **bgattachment-scroll.html**

Save as **bgtopcenter.html**

```
<html>
<head>
<title> bgtopcenter</title>
<style type="text/css">
body
{
background-image:url(white2.png);
background-repeat:no-repeat;
background-position:top center;
}
a
{
color:green;
text-decoration:none;
}
</style>
</head>
```

```
<body>
<a href="week4-3.html">Home</a>
</body>
</html>
```

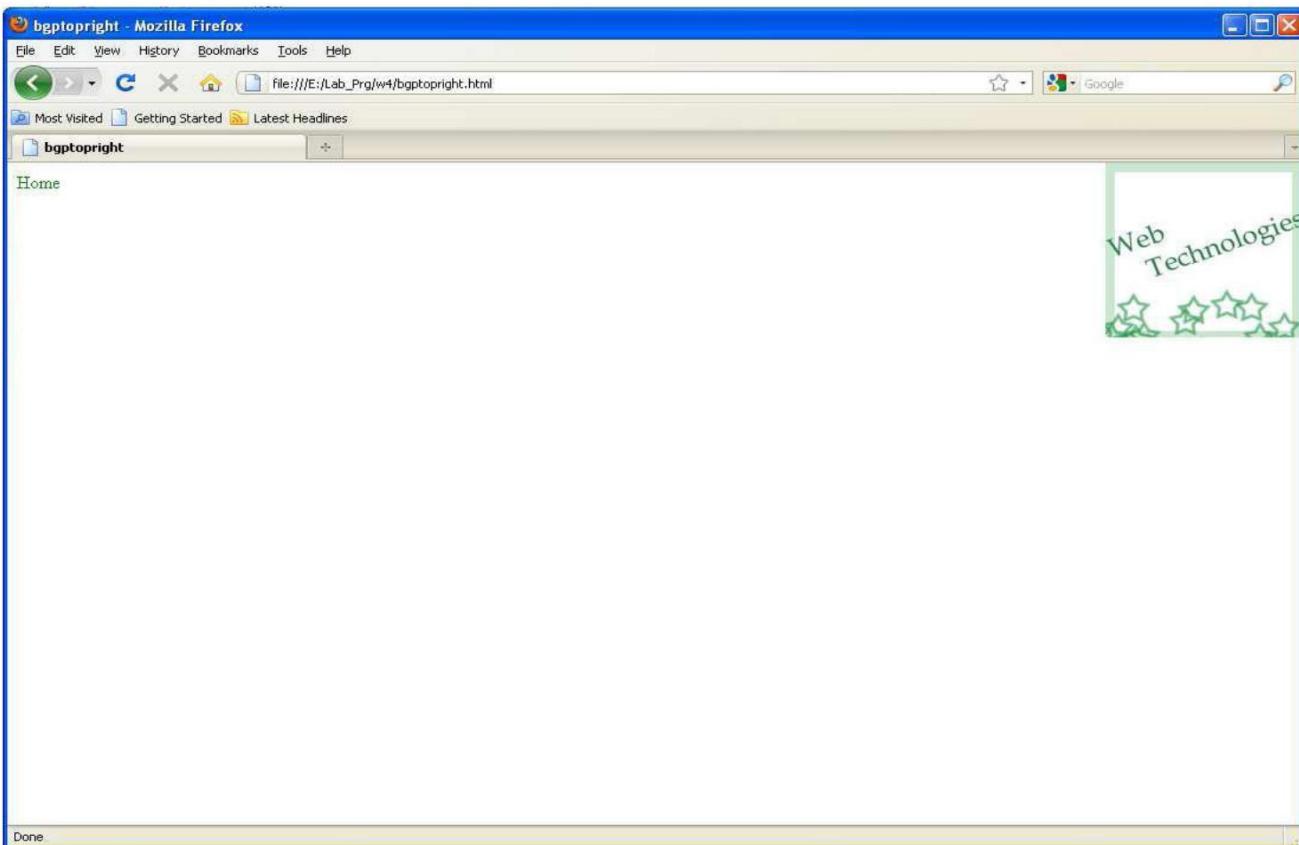
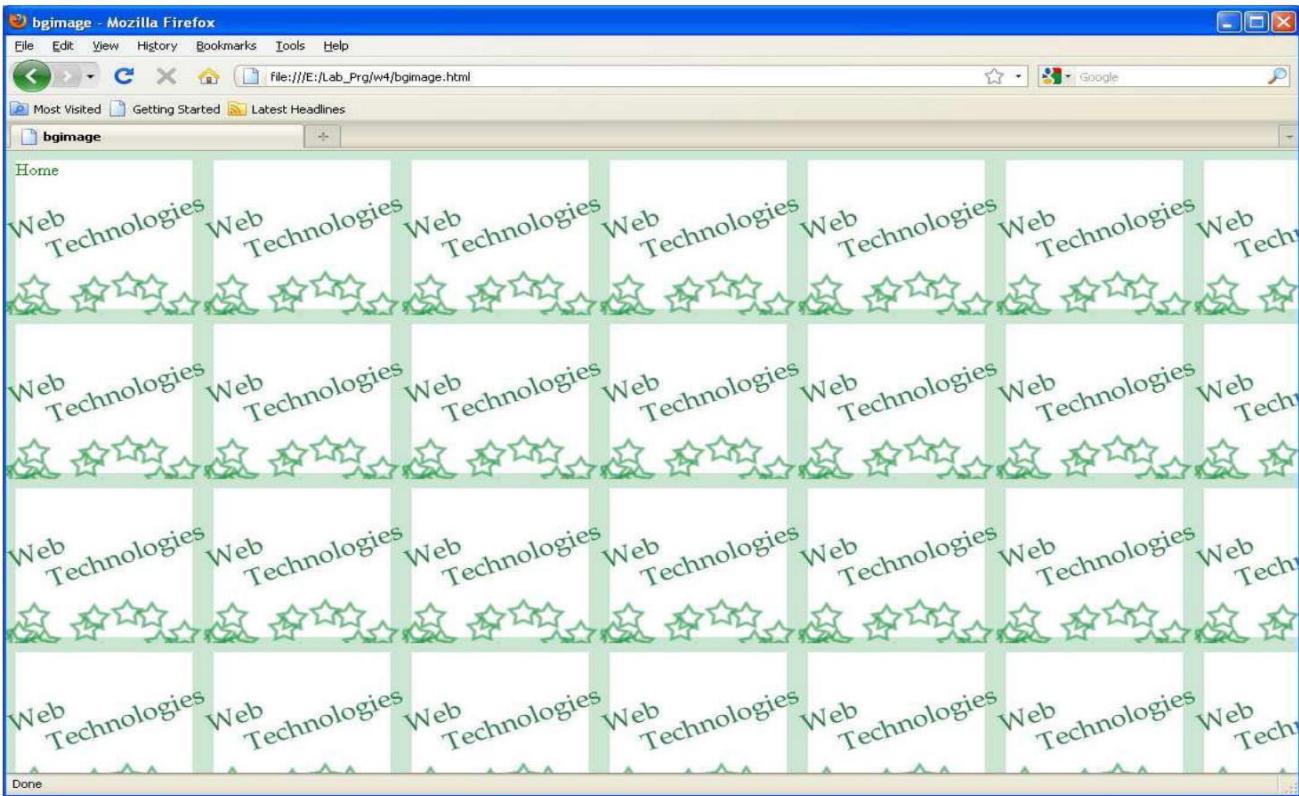
Save as **bgptopright.html**

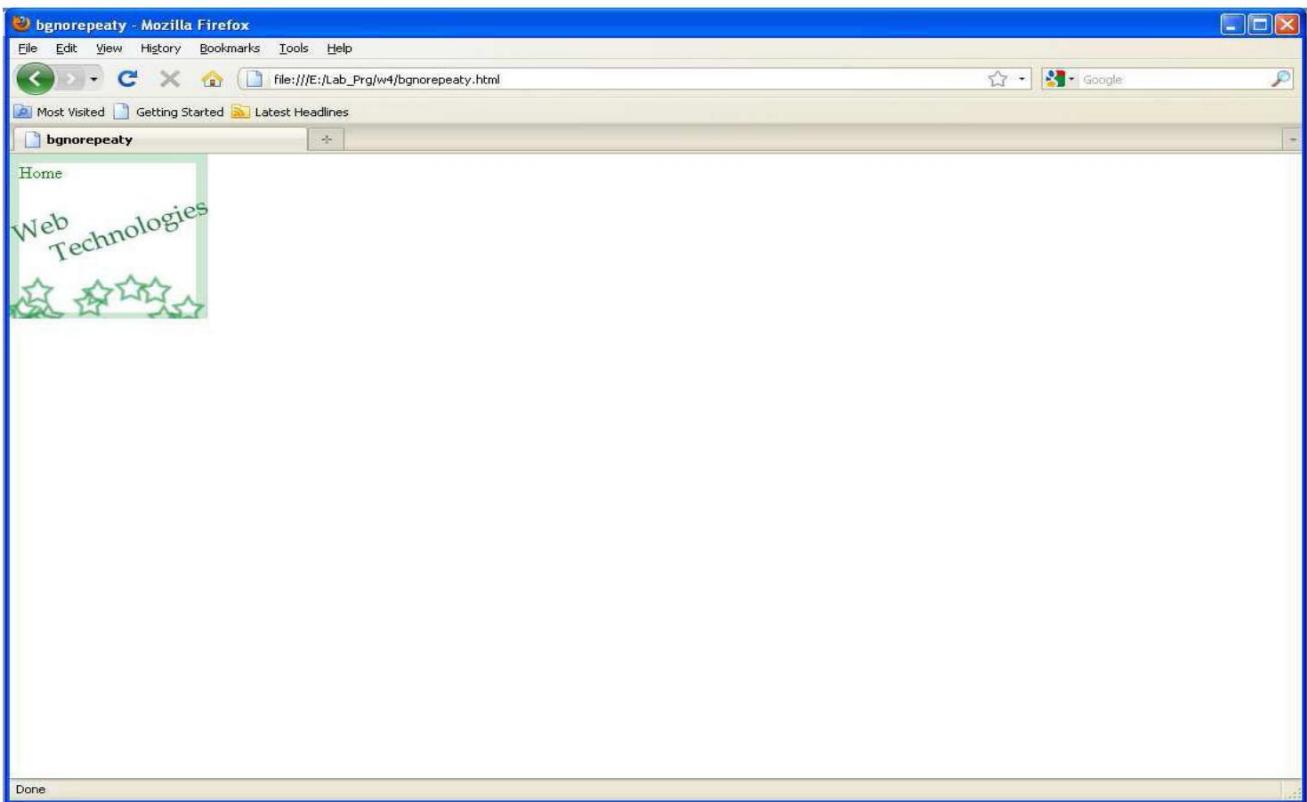
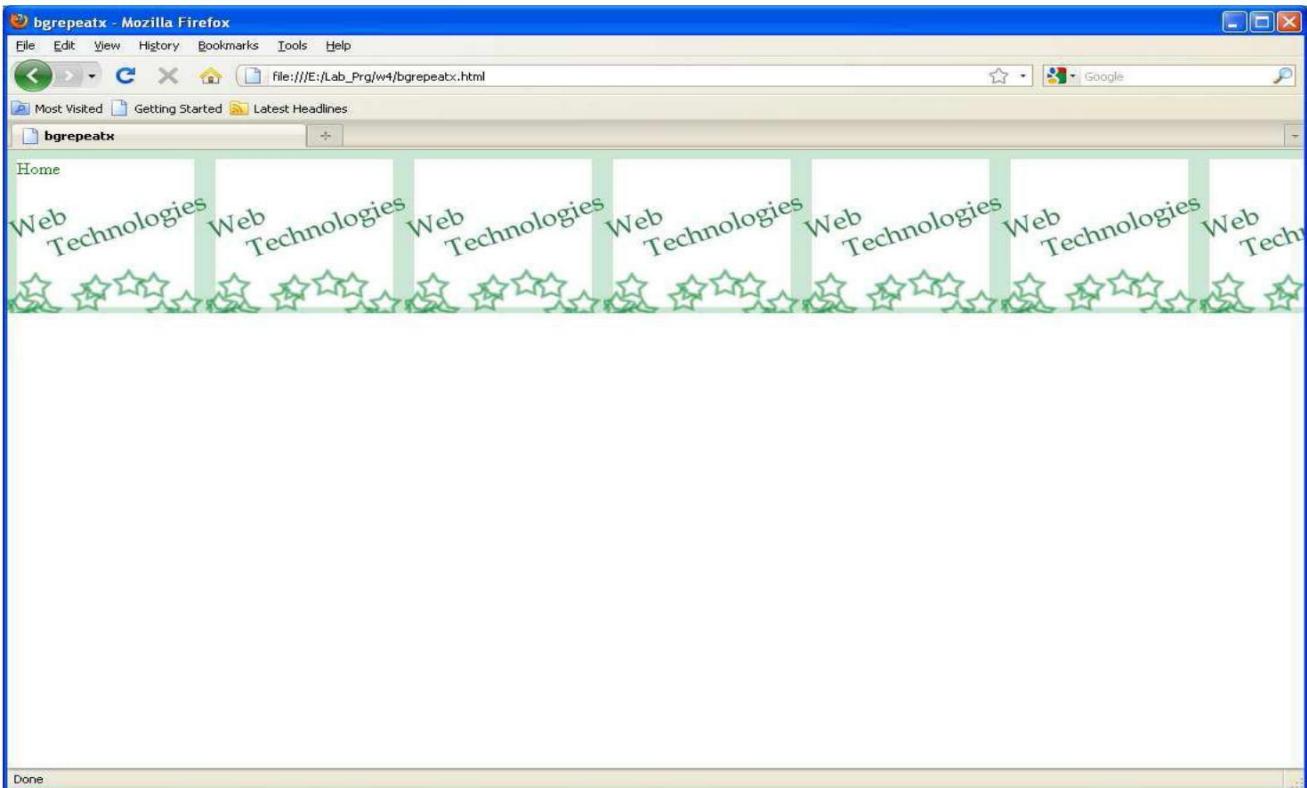
```
<html>
<head>
<title> bgptopright </title>
<style type="text/css">
body
{
background-image:url('white2.png');
background-repeat:no-repeat;
background-position:top right;
}
a
{
color:green;
text-decoration:none;
}
</style>
</head>
<body>

<a href="week4-3.html">Home</a>
</body>
</html>
```

Save as **bgpxy.html**

```
<html>
<head>
<title> bgpbottomcenter </title>
<style type="text/css">
body
{
background-image:url(white2.png);
background-repeat:no-repeat;
background-position:250 300;
}
a
{
color:green;
text-decoration:none;
}
</style>
</head>
<body>
<a href="week4-3.html">Home</a>
</body>
</html>
```



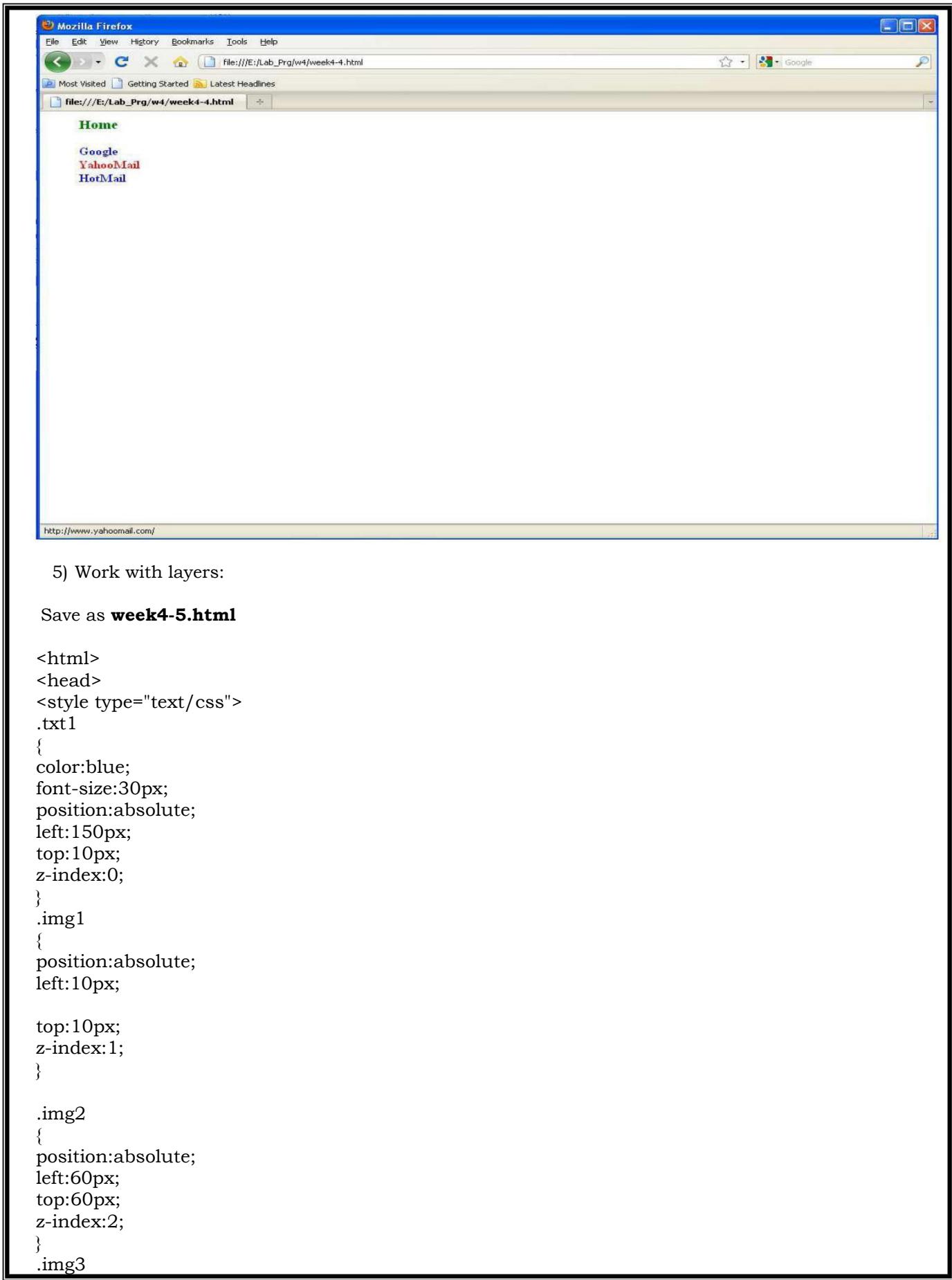


4) Define styles for links as

a:link
a:visited
a:active
a:hover

Save as **week4-4.html**

```
<html>
<head>
<style type="text/css">
a:link {color:blue} /* unvisited link */
a:visited {color:green} /* visited link */
a:hover {color:red} /* mouse over link */
a:active {color:yellow} /* selected link */
a
{
text-decoration:none;
margin:40px;
}
</style>
</head>
<body>
<h3><a href="week4.html">Home</a></h3>
<p><b>
<a href="http://www.google.co.in"
target="_blank">Google</a> <br/>
<a href="http://www.yahooemail.com"
target="_blank">YahooMail</a> <br/>
<a href="http://www.hotmail.com" target="_blank">HotMail</a>
</b></p>
</body>
</html>
```



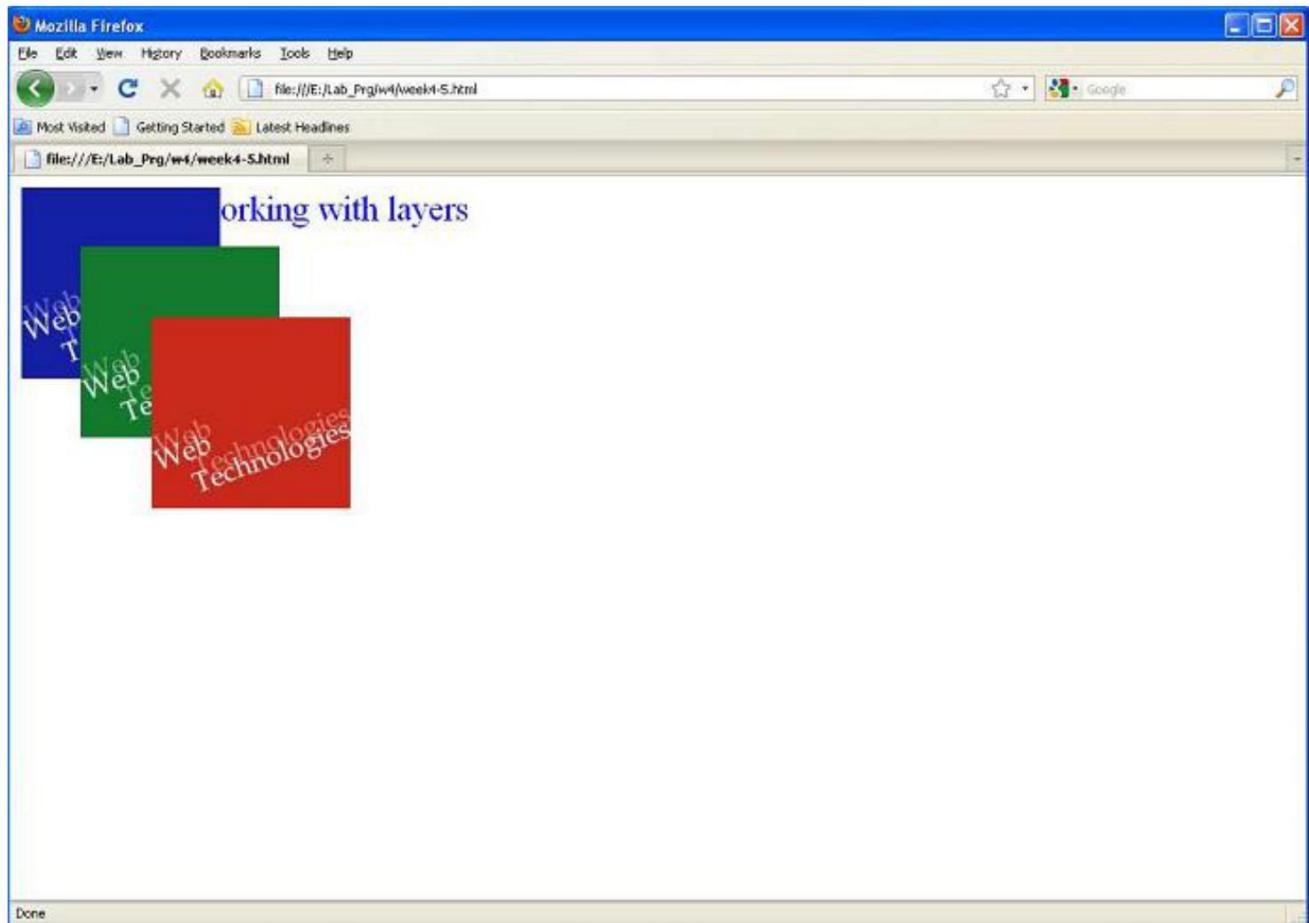
5) Work with layers:

Save as **week4-5.html**

```
<html>
<head>
<style type="text/css">
.txt1
{
color:blue;
font-size:30px;
position:absolute;
left:150px;
top:10px;
z-index:0;
}
.img1
{
position:absolute;
left:10px;
top:10px;
z-index:1;
}

.img2
{
position:absolute;
left:60px;
top:60px;
z-index:2;
}
.img3
```

```
{  
position:absolute;  
left:120px;  
top:120px;  
z-index:3;  
}  
</style>  
</head>  
<body>  
<p class="txt1">Working with layers</p>  
  
  
  
</body>  
</html>
```

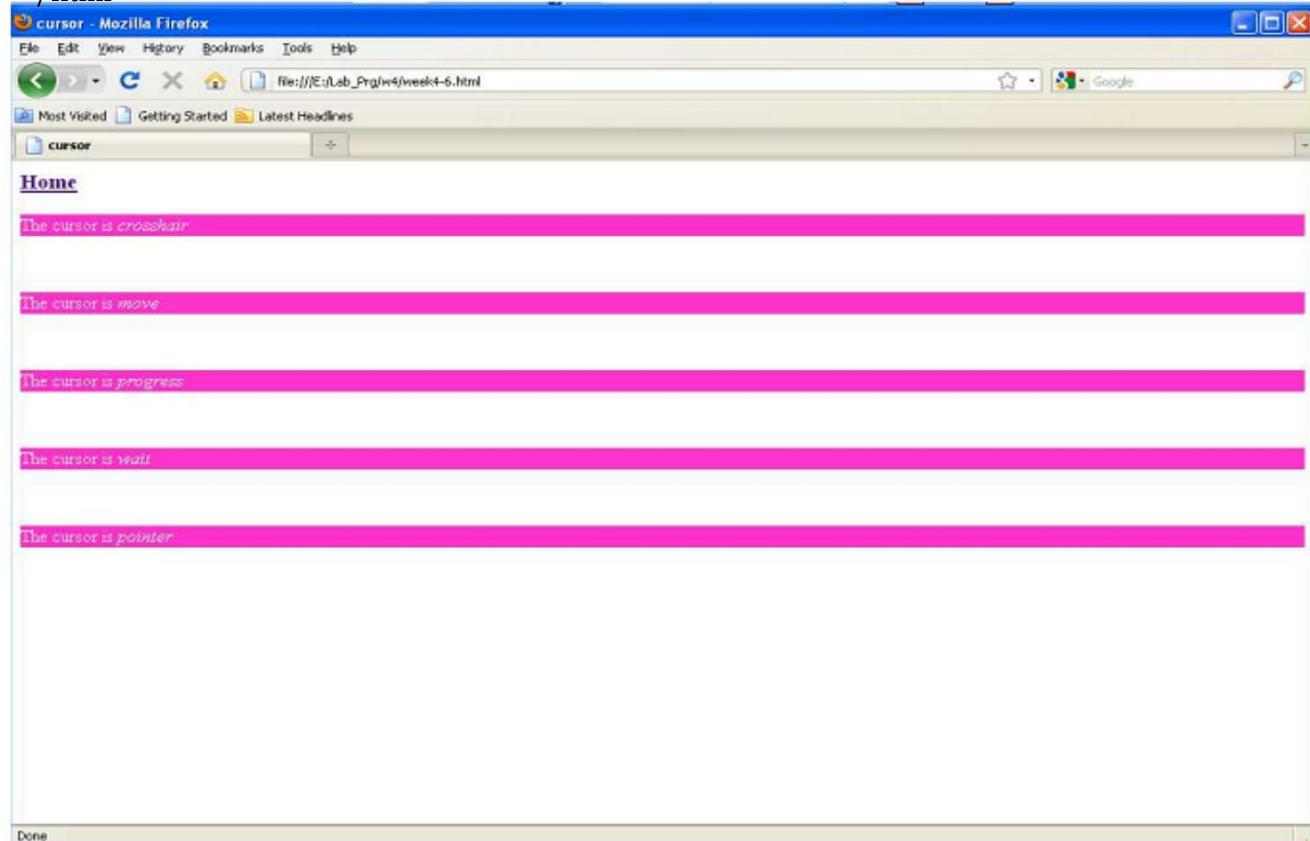


6) Add a customized cursor

Save as **week4 .6.html**

```
<html>
<head>
<title> cursor </title>
<style type="text/css">
.c1{cursor:crosshair}
.c2{cursor:move}
.c3{cursor:progress}
.c4{cursor:wait}
.c5{cursor:pointer}
p{background-color:#FF33CC;color:white;}
</style>
</head>
<body>
<h3><a href="week4.html">Home</a></h3>
<p class="c1">The cursor is <i>crosshair</i></p>
<br/>
<p class="c2">The cursor is <i>move</i></p>

<br/>
<p class="c3">The cursor is <i>progress</i></p>
<br/>
<p class="c4">The cursor is <i>wait</i></p>
<br/>
<p class="c5">The cursor is <i>pointer</i></p>
</body>
</html>
```



Exercise

Design a web page using CSS which include the following:

- | | |
|-----------------------|-------------------|
| 1) Font Size | 2)Font Weight |
| 3)Font Stretch | 4)Text Decoration |
| 5)Text Transformation | 6)Text alignment |
| 7)Padding | 8)Border style |

Signature of the faculty

WEEK-5

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

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

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

Display the XML file as follows.

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

Use XML schemas XSL and CSS for the above purpose.

Save as **catalog1.xml**

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE catalog SYSTEM "catalog1.dtd">
<catalog>
<book>
<title>Head First Java Script</title>
<author>Kathy Sierra and Bert Bates</author>
<isbn>1148574</isbn>
<publisher>O'Reilly Media</publisher>
<edition>Second</edition>
<price>375</price>
</book>
<book>
<title>Head First Servlets</title>
<author>Bryan Basham, Kathy Sierra and Bert
Bates</author> <isbn>58746321</isbn>
<publisher>O'Reilly Media</publisher>

<edition>Third</edition>
<price>475</price>
</book>
<book>
<title>Head First PHP & MySQL</title>
<author>Lynn Beighley Michael Morrison </author>
<isbn>965844712</isbn>
<publisher>O'Reilly Media</publisher>
<edition>First</edition>
<price>365</price>
</book>
<book>
<title>Head First WebDesign</title>
<author>Ethan Watrall </author>
<isbn>764485142</isbn>
<publisher>O'Reilly Media</publisher>
<edition>First</edition>
<price>390</price>
</book>
</catalog>
```

Save as **catalog1.dtd**

```
<?xml version="1.0" encoding="UTF-8"?>
<!ELEMENT catalog (book)*>
<!ELEMENT book (title,author,isbn,publisher,edition,price)>
<!ELEMENT title (#PCDATA)>
<!ELEMENT author (#PCDATA)>
<!ELEMENT isbn (#PCDATA)>
<!ELEMENT publisher (#PCDATA)>
<!ELEMENT edition (#PCDATA)>
<!ELEMENT price (#PCDATA)>
```

XMLSchema

Save as **catalog2.html**

```
<?xml version="1.0" encoding="UTF-8"?>
<catalog xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="catalog2.xsd">
<book>
<title>Head First Java Script</title>
<author>Kathy Sierra and Bert Bates</author>
<isbn>1148574</isbn>
<publisher>O'Reilly Media</publisher>
<edition>Second</edition>
<price>375</price>
</book>
<book>
<title>Head First Servlets</title>
<author>Bryan Basham, Kathy Sierra and Bert
Bates</author> <isbn>58746321</isbn>
<publisher>O'Reilly Media</publisher>
<edition>Third</edition>
<price>475</price>

</book>
<book>
<title>Head First PHP & MySQL</title>
<author>Lynn Beighley Michael Morrison </author>
<isbn>965844712</isbn>

<publisher>O'Reilly Media</publisher>
<edition>First</edition>
<price>365</price>
</book>
<book>
<title>Head First WebDesign</title>
<author>Ethan Watrall </author>
<isbn>764485142</isbn>
<publisher>O'Reilly Media</publisher>
<edition>First</edition>
<price>390</price>
</book>
</catalog>
```

Save as **catalog2.xsd**

```
<?xml version="1.0" encoding="UTF-8"?>
<xss:schema xmlns:xss="http://www.w3.org/2001/XMLSchema">
<xss:element name="catalog"/>
<xss:complexType name="book">
<xss:sequence>
<xss:element name="title" type="xss:string"/>
<xss:element name="author" type="xss:string"/>
<xss:element name="isbn" type="xss:string"/>
<xss:element name="publisher" type="xss:string"/>
<xss:element name="edition" type="xss:string"/>
<xss:element name="price" type="xss:string"/>
</xss:sequence>
</xss:complexType>
<xss:element name="book"/>
</xss:schema>
```

eXtensible Stylesheet Language

Save as **catalog3.xml**

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="catalog3.xsl"?>
<!DOCTYPE catalog SYSTEM "catalog.dtd">
<catalog>
<book>
<title>Head First Java Script</title>
<author>Kathy Sierra and Bert Bates</author>
<isbn>1148574</isbn>
<publisher>O'Reilly Media</publisher>
<edition>Second</edition>
<price>375</price>
</book>
<book>
<title>Head First Servlets</title>
<author>Bryan Basham, Kathy Sierra and Bert Bates</author>
<isbn>58746321</isbn>
<publisher>O'Reilly Media</publisher>
<edition>Third</edition>
<price>475</price>
</book>
<book>
<title>Head First PHP & MySQL</title>
<author>Lynn Beighley Michael Morrison </author>
<isbn>965844712</isbn>
<publisher>O'Reilly Media</publisher>
<edition>First</edition>
<price>365</price>
```

```

</book>
<book>
<title>Head First WebDesign</title>
<author>Ethan Watrall </author>
<isbn>764485142</isbn>
<publisher>O'Reilly Media</publisher>

<edition>First</edition>
<price>390</price>
</book>
</catalog>

```

Save as **catalog3.xsl**

```

<?xml version="1.0"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template match="catalog">
<html>
<head>
<title>converting in to xml</title>
</head>
<body>
<table border="1">
<tr>
<th>title</th><th>author</th><th>isbn</th>
<th>publisher</th><th>edition</th><th>price</th>
</tr>
<xsl:for-each select="book">
<tr>
<td><xsl:value-of select="title"/></td>
<td><xsl:value-of select="author"/></td>
<td><xsl:value-of select="isbn"/></td>
<td><xsl:value-of select="publisher"/></td>
<td><xsl:value-of select="edition"/></td>

<td><xsl:value-of select="price"/></td>
</tr>
</xsl:for-each>
</table>
</body>
</html>

</xsl:template>
</xsl:stylesheet>

```

Cascading Style Sheet

Save as **catalog4.xml**

```

<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/css" href="catalog4.css"?>
<!DOCTYPE catalog SYSTEM "catalog.dtd">
<catalog>
<book>
<title>Head First Java Script</title>

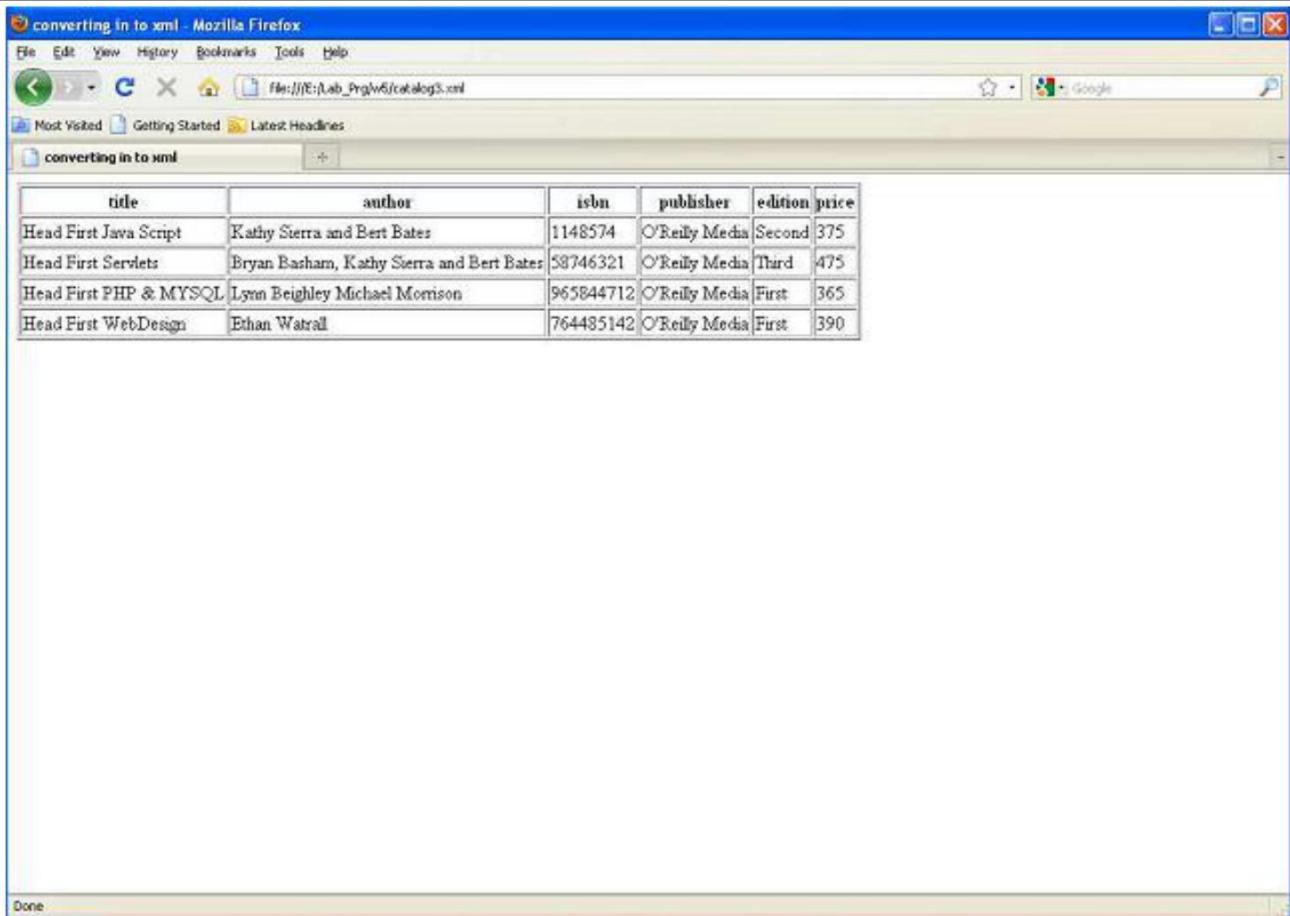
```

```
<author>Kathy Sierra and Bert Bates</author>
<isbn>1148574</isbn>
<publisher>O'Reilly Media</publisher>
<edition>Second</edition>
<price>375</price>
</book>
<book>
<title>Head First Servlets</title>
<author>Bryan Basham, Kathy Sierra and Bert Bates</author>
<isbn>58746321</isbn>
<publisher>O'Reilly Media</publisher>
<edition>Third</edition>
<price>475</price>
</book>
<book>
<title>Head First PHP & MySQL</title>
<author>Lynn Beighley Michael Morrison </author>
<isbn>965844712</isbn>
<publisher>O'Reilly Media</publisher>
<edition>First</edition>
<price>365</price>
</book>
<book>
<title>Head First WebDesign</title>
<author>Ethan Watrall </author>
<isbn>764485142</isbn>
<publisher>O'Reilly Media</publisher>
<edition>First</edition>
<price>390</price>

</book>
</catalog>
```

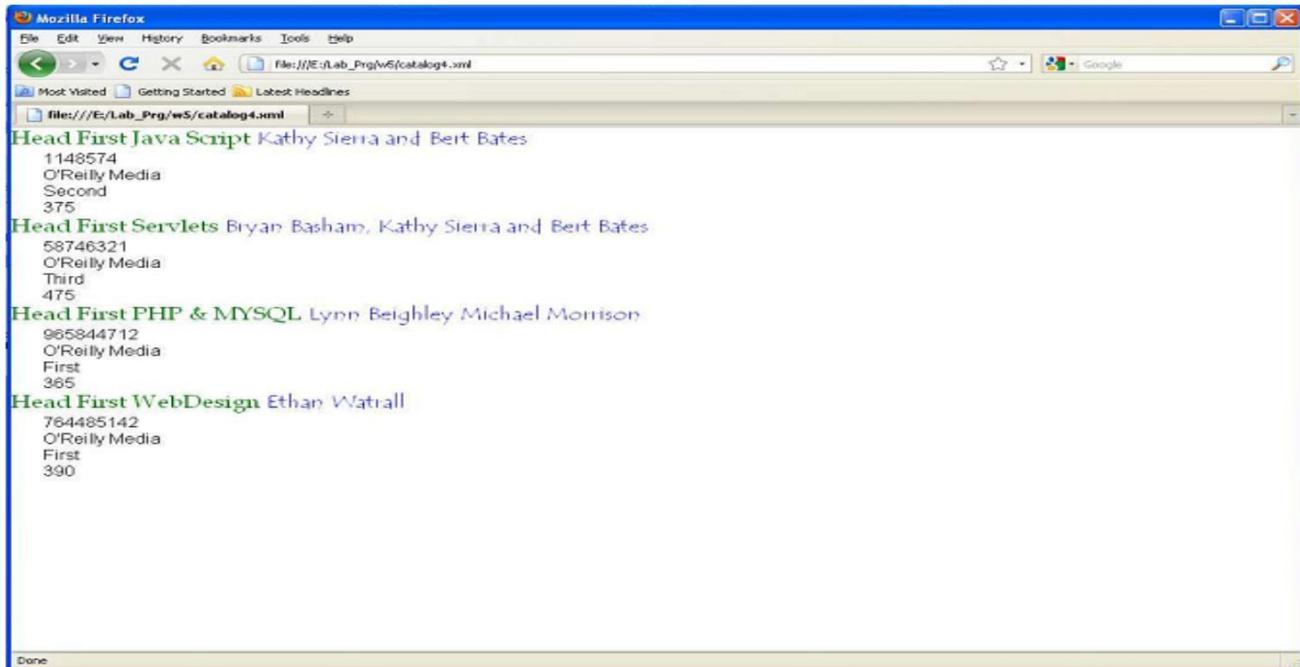
Save as **catalog4.css**

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



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

```
font-family:Tempus Sans ITC;
color:blue;
font-size:16pt;
}
isbn,publisher,edition,price
{
display:block;
font-family:arial;
color:black;
font-size:12pt;
margin-left:20pt;
}
```



Exercise

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

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

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

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

Signature of the Faculty

WEEK- 6

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

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

and it is Circle, if it is false.

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

Save as **colors.java**

```
import java.io.*;
import java.awt.*;
import java.awt.event.*;
public class colors extends Canvas
{
    public boolean square;
    public Color color;
    public colors()
    {
        addMouseListener(new MouseAdapter()
        {
            public void mouseClicked(MouseEvent me)
            {
                change();
            }
        });
        square=true;
        setSize(200,200);
        change();
    }
    public void change()
    {
        color = random();
        repaint();
    }
    public Color getColor()
    {
        return color;
    }
    public void setColor(Color color)
    {
        this.color=color;
    }
}
```

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

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

public boolean isSquare()
{
return square;
}

public void setSquare(boolean square)
{
this.square=square;
repaint();
}
public void paint(Graphics g)
{
if(square)
{
g.setColor(color);
//g.drawRect(10,10,160,160);
g.fillRect(10,10,180,180);
}
else
{
g.setColor(color);
//g.drawOval(10,10,160,160);
g.fillOval(10,10,180,180);
}
}
}
```

Save as **colors.mft**

Name: colors.class

Java-Bean: True

Create a jar file

jar cfmv colors.jar colors.mft colors.class colors\$1.class

Now jar file has been created.

Go to

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

Opens four dialogue boxes **toolbox**,

beanbox,

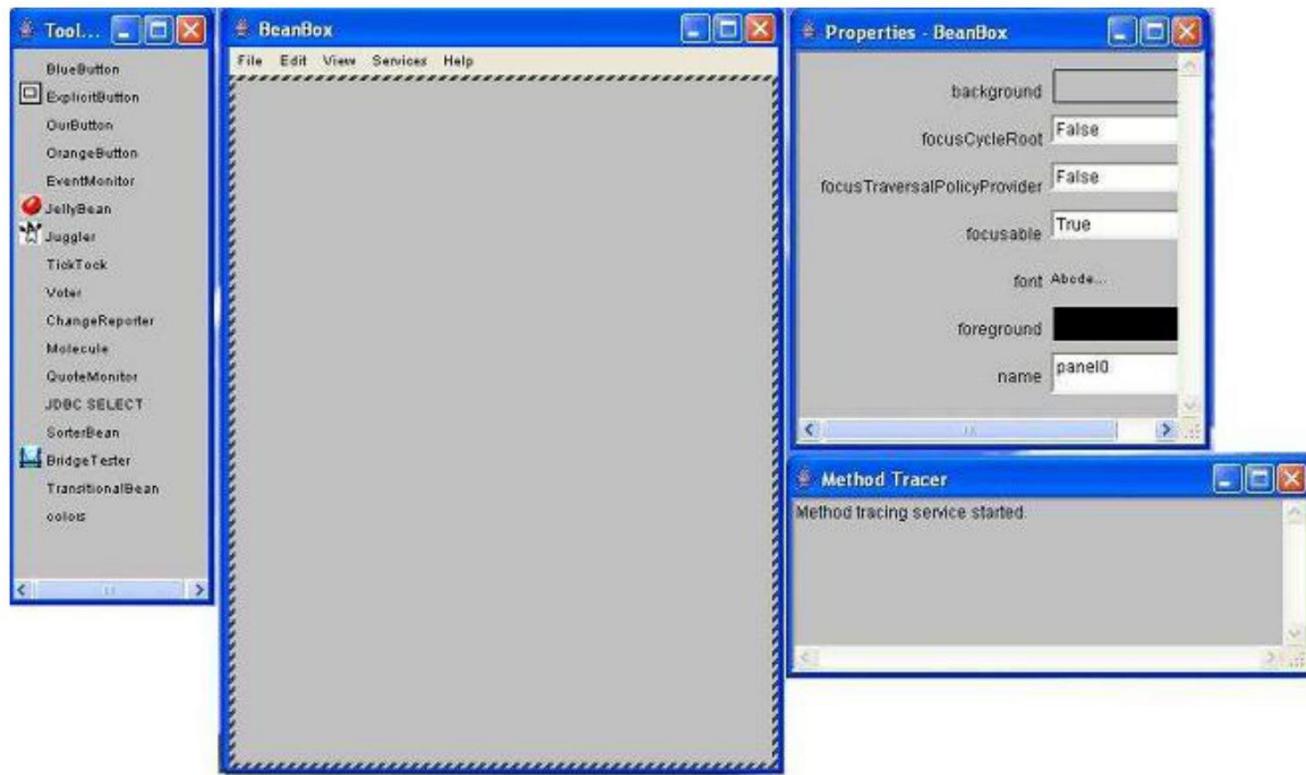
properties window,

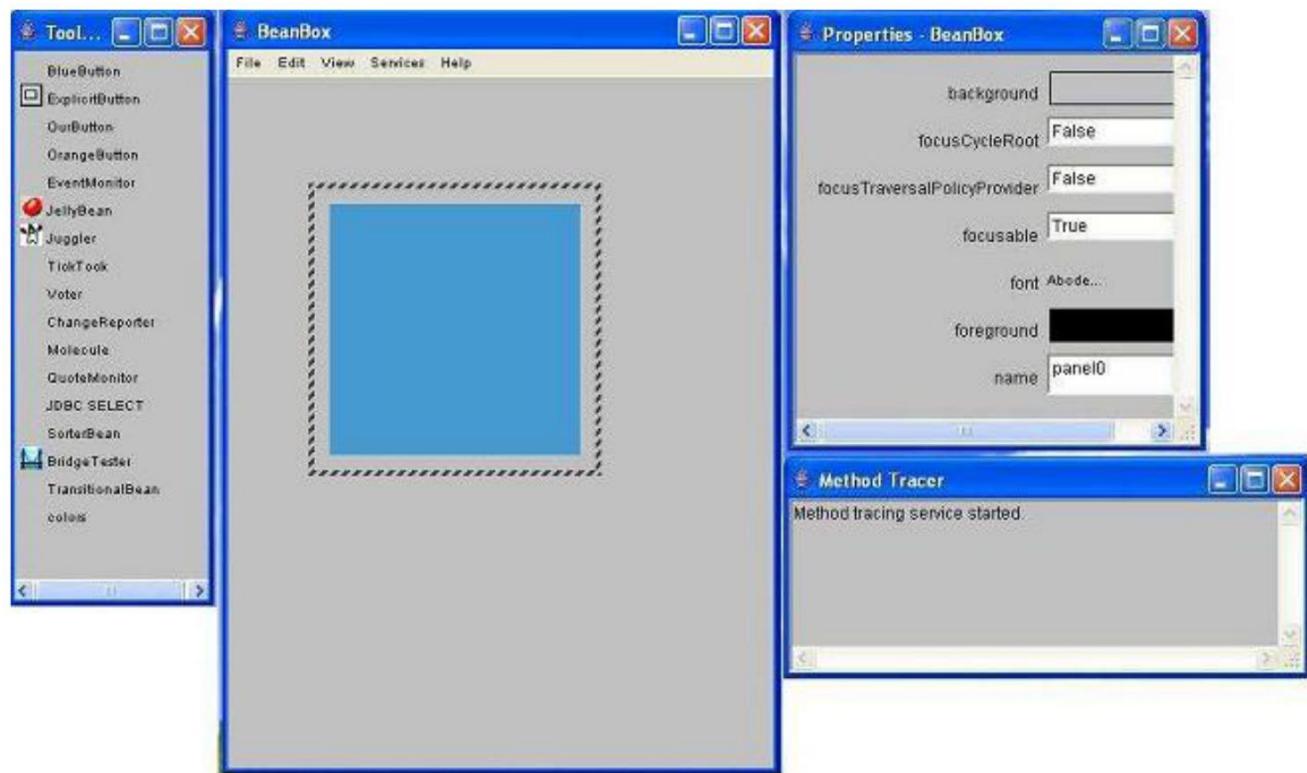
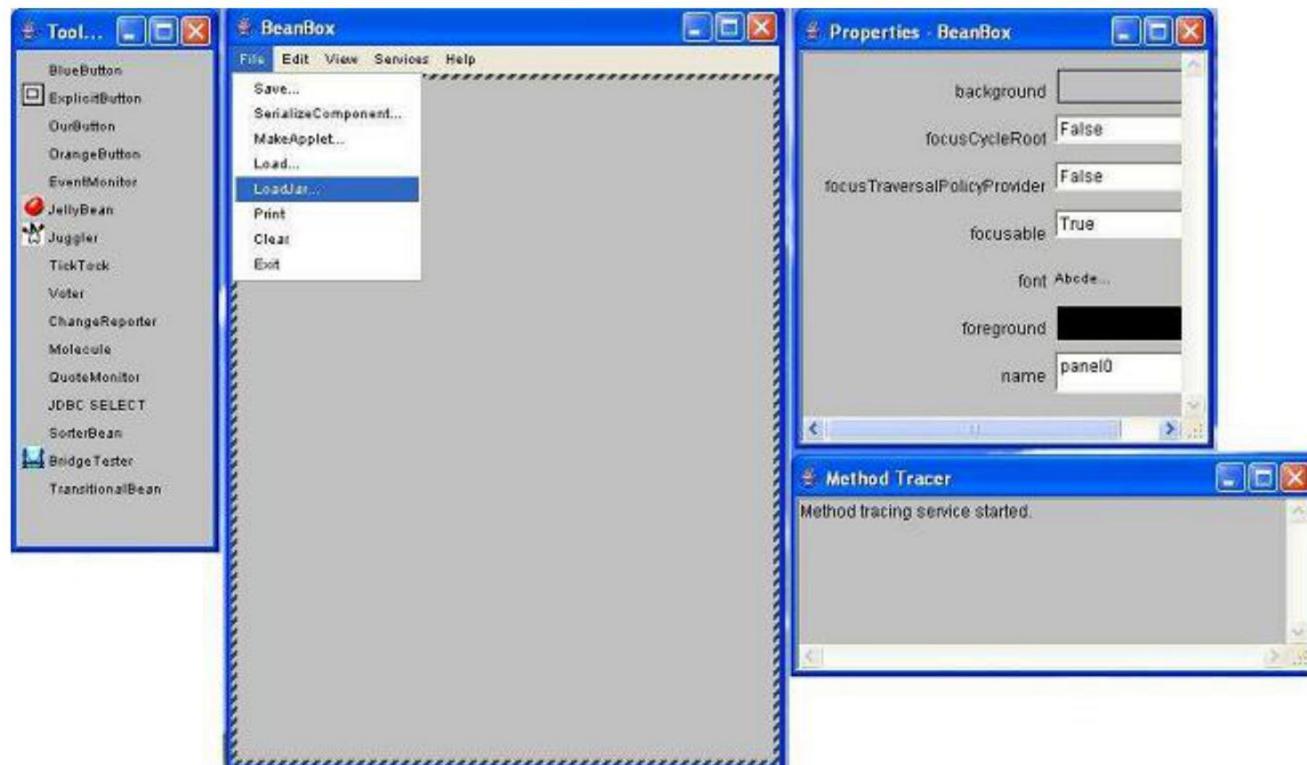
method tracer

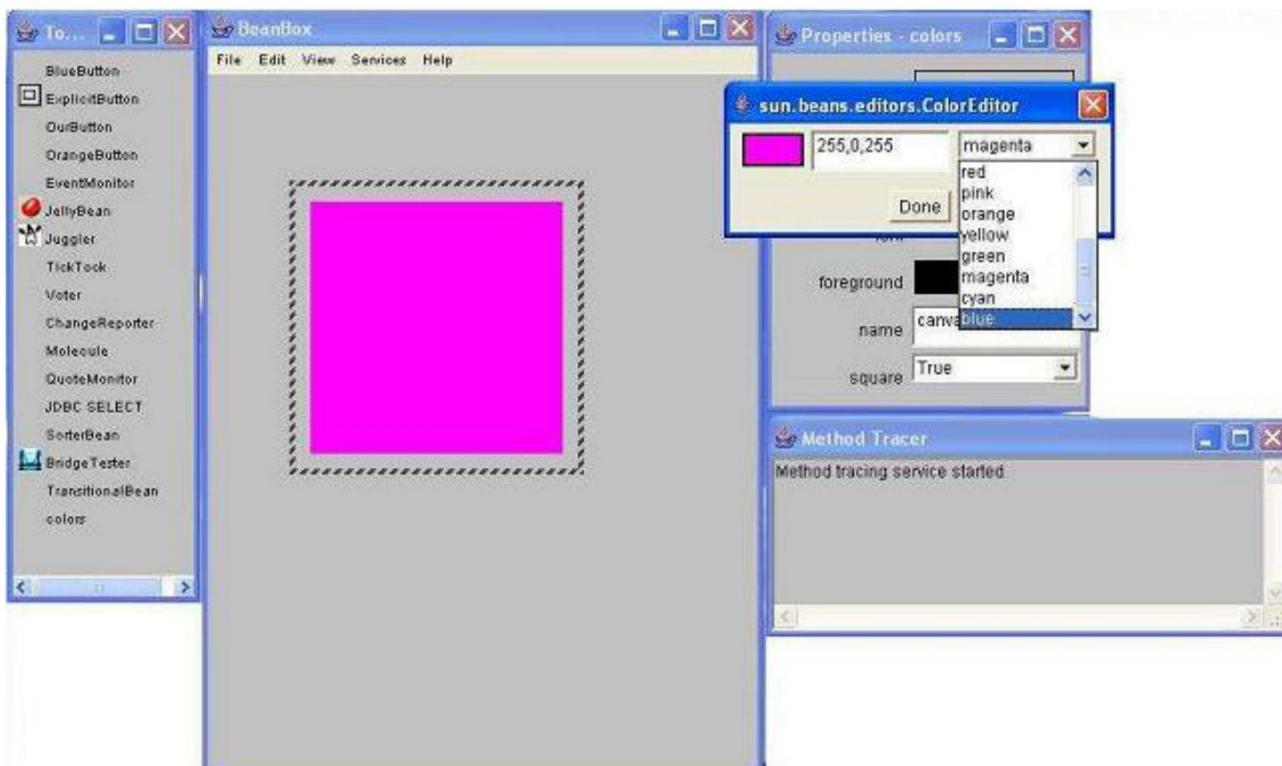
Goto file->Loadjar [*load the jar colors.jar*]

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

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







Exercises

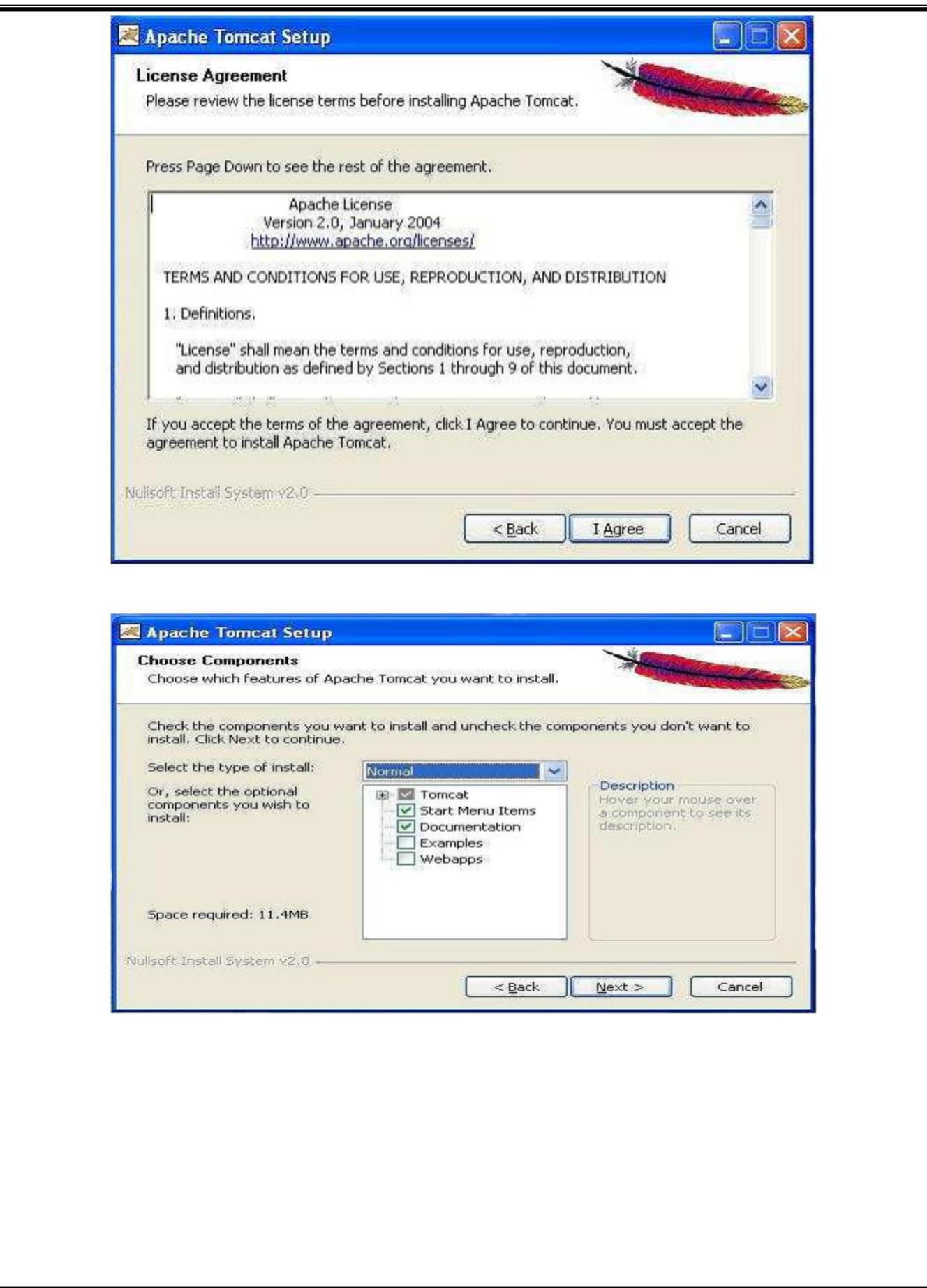
- 1) To start and stop the Animation(on Juggler Bean) by creating Start and Stop buttons: use BDK Tool.
- 2) Create two Beans Traffic Light(implemented as a label with only three background colors-red, green, yellow) and Automobile(Implemented as a Text Box which states its state/movement). The state of the Automobile should depend on the following Light Transition table.

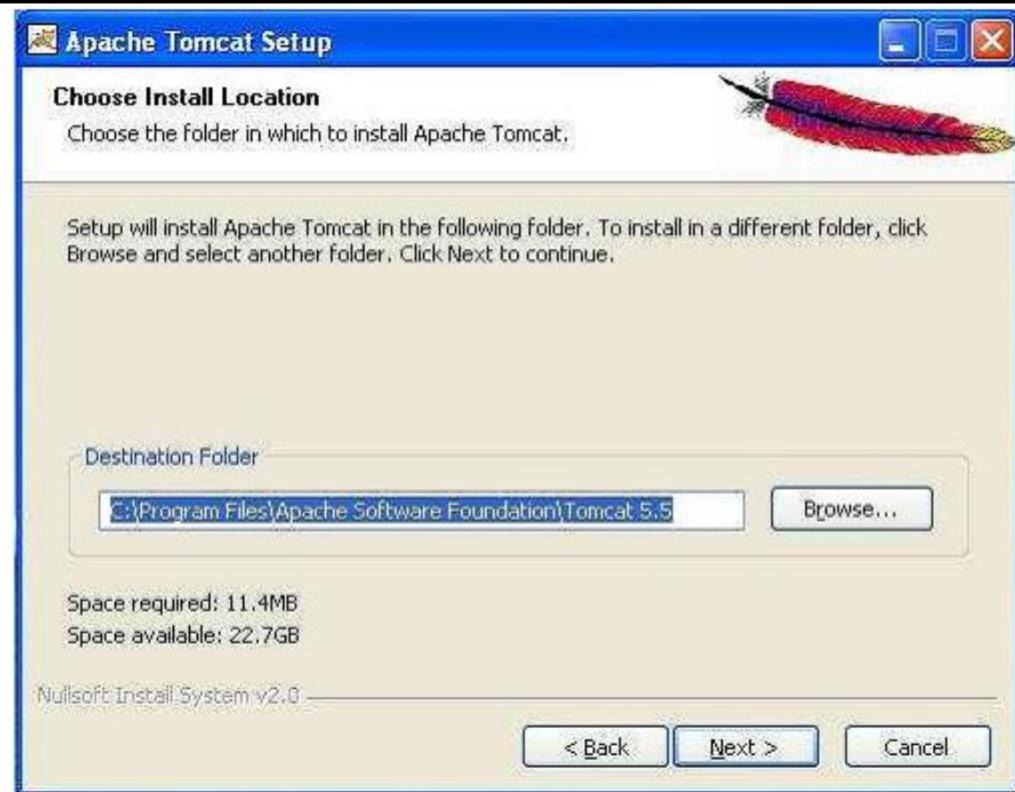
Signature of the faculty

WEEK-7

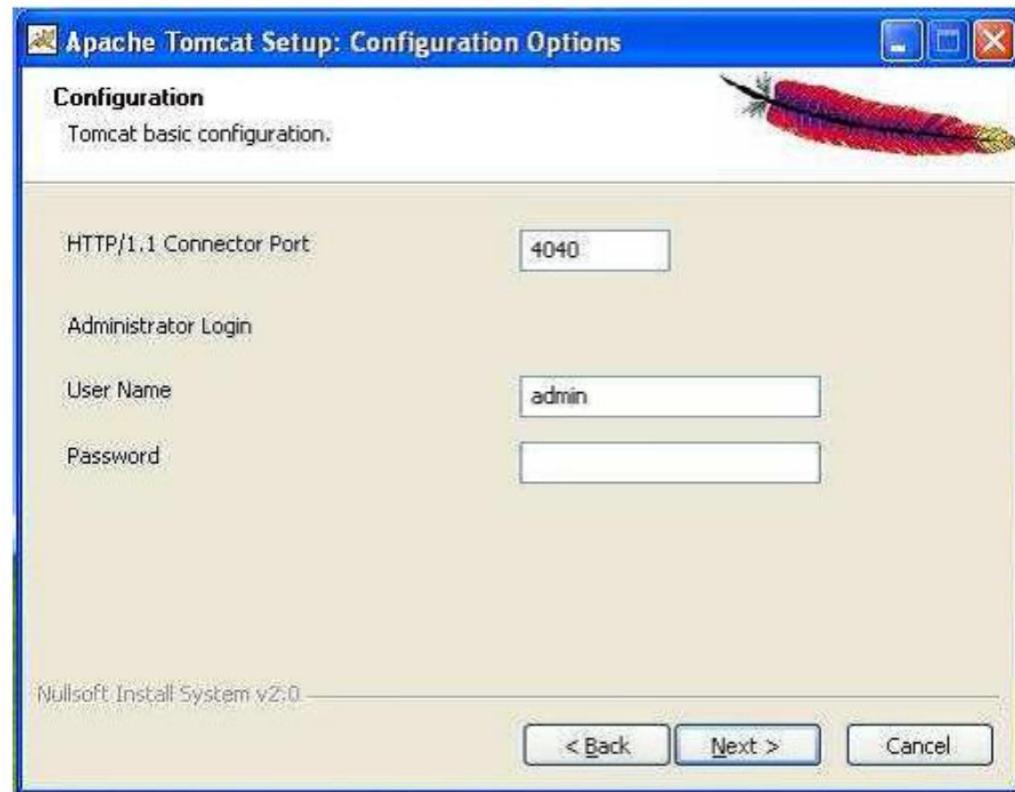
- 1) Install TOMCAT web server and APACHE. While installation assign port number 4040 to TOMCAT and 8080 to APACHE. Make sure that these ports are available i.e., no other process is using this port.
- 2) Access the above developed static web pages for books web site, using these servers by putting the web pages developed in week-1 and week-2 in the document root. Access the pages by using the urls :
<http://localhost:4040/rama/books.html> (for tomcat) <http://localhost:8080/books.html> (for Apache)

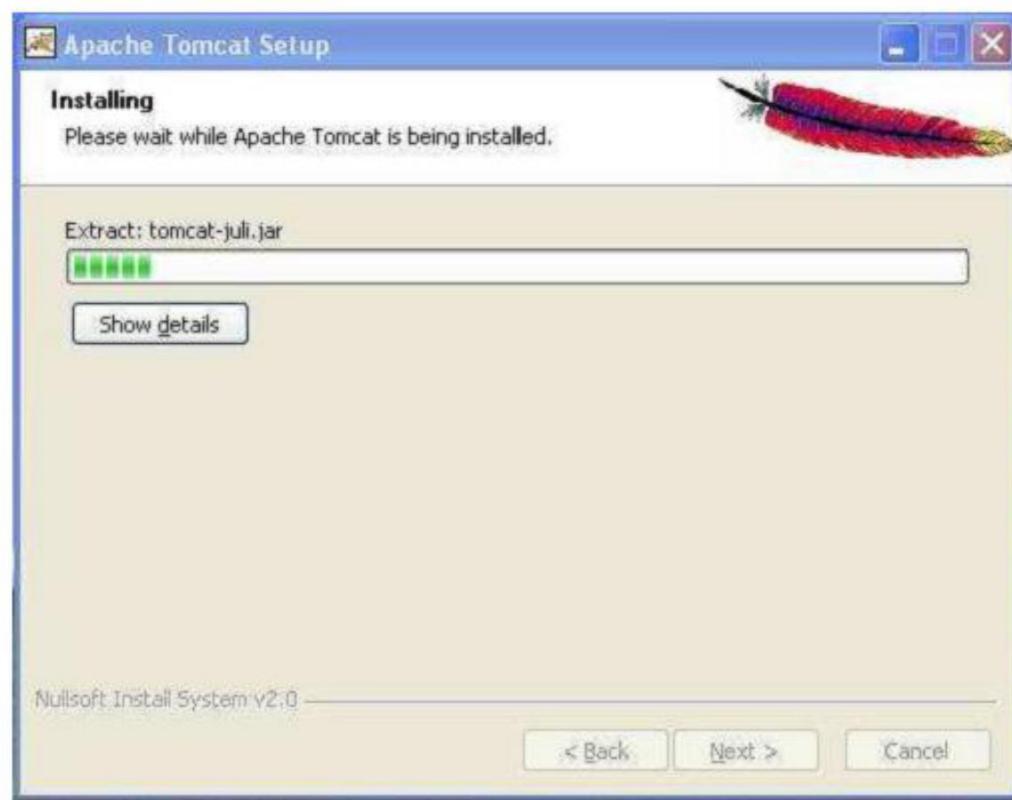
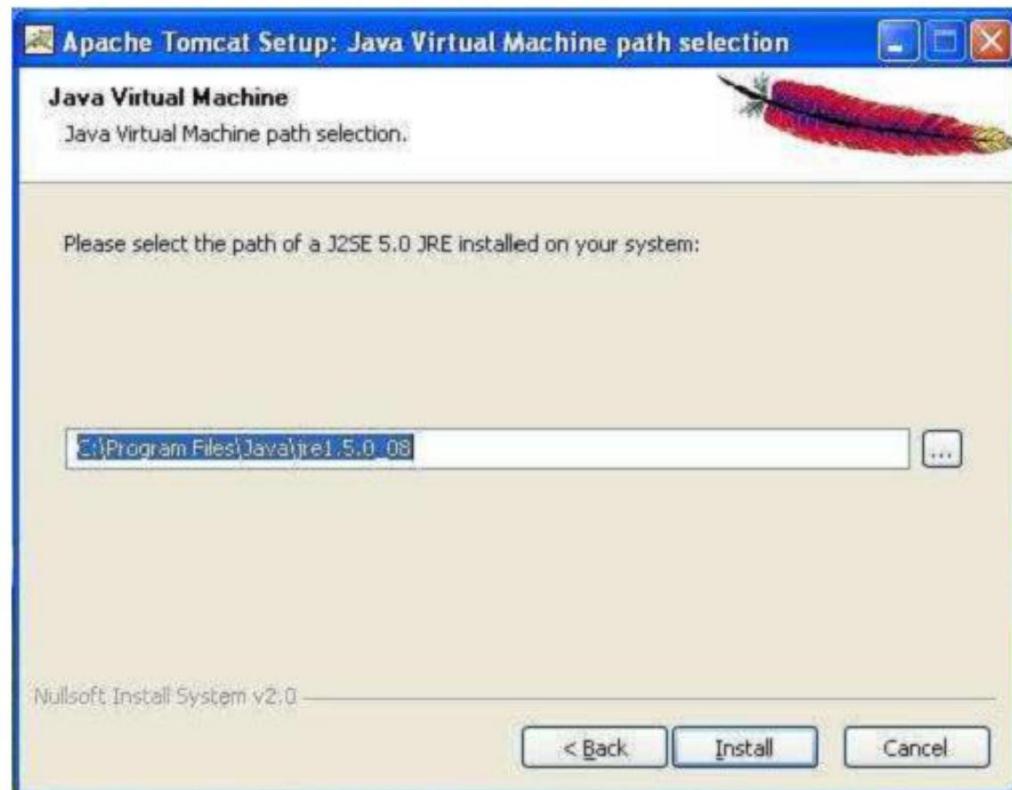
Installation of Tomcat

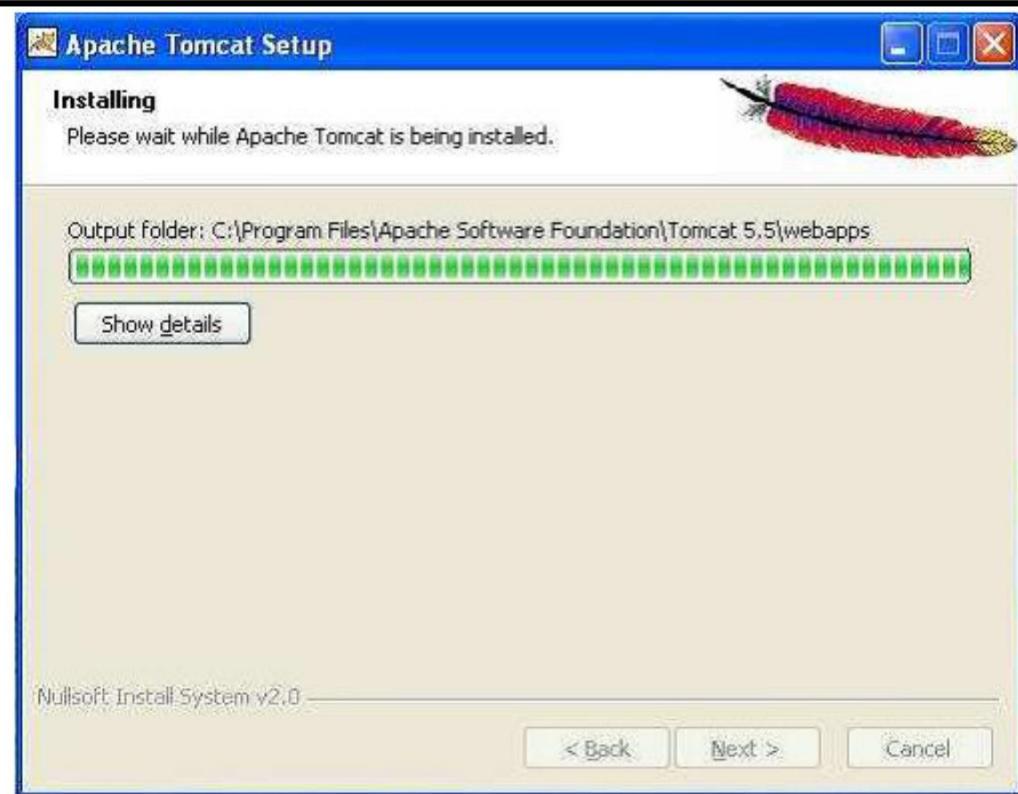


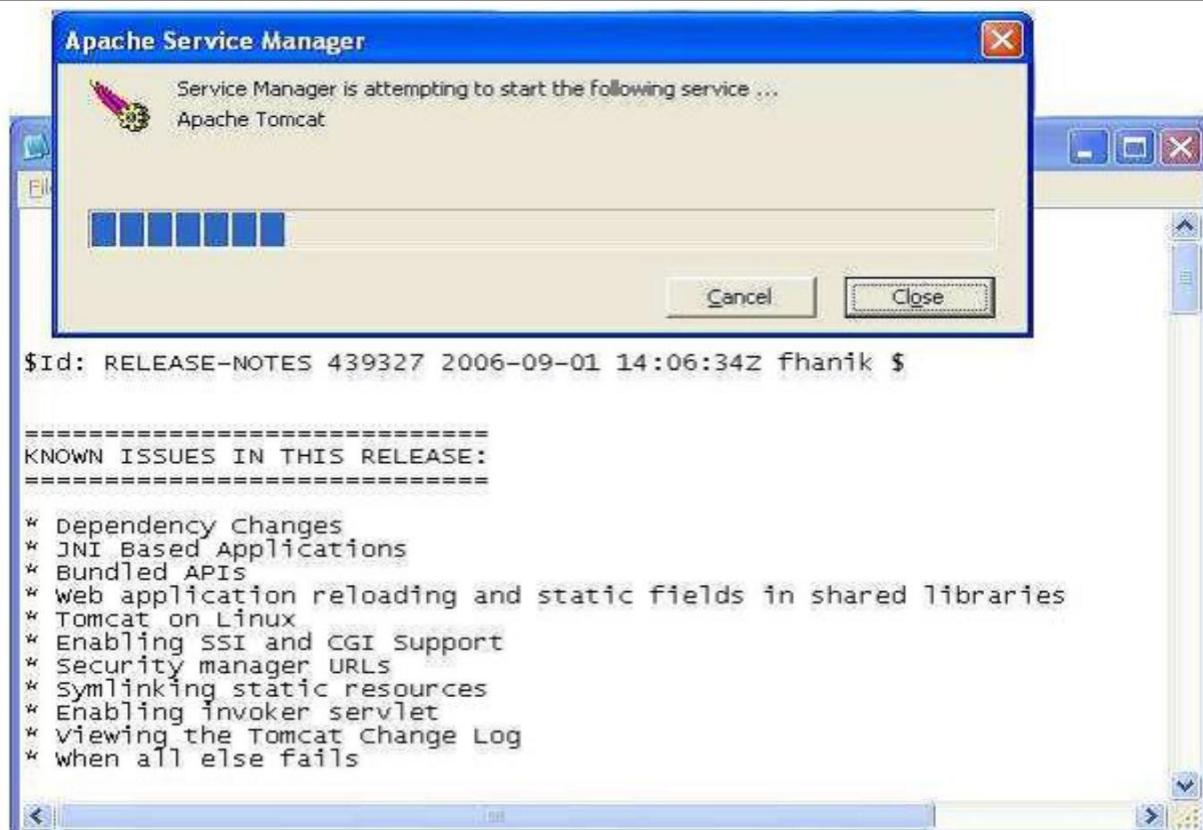


Setting the port number to 4040









The screenshot shows a Windows Internet Explorer window displaying the Apache Tomcat 5.5.20 default home page. The URL in the address bar is "Http://localhost:4040/". The page features a yellow cat logo and the Apache Software Foundation logo. A sidebar on the left contains links for Administration, Documentation, and Tomcat Online. The main content area congratulates the user on a successful setup and provides information about the installation directory and security restrictions.

If you're seeing this page via a web browser, it means you've setup Tomcat successfully. Congratulations!

As you may have guessed by now, this is the default Tomcat home page. It can be found on the local filesystem at:

`$CATALINA_HOME/webapps/ROOT/index.jsp`

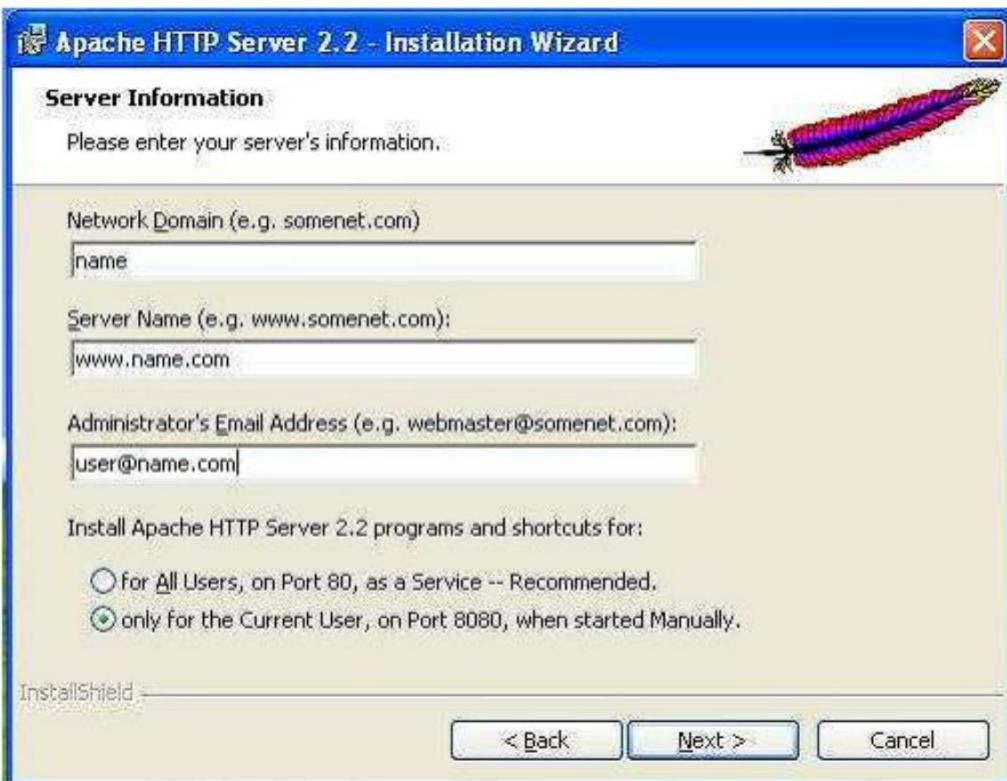
where "\$CATALINA_HOME" is the root of the Tomcat installation directory. If you're seeing this page, and you don't think you should be, then either you're either a user who has arrived at new installation of Tomcat, or you're an administrator who hasn't got his/her setup quite right. Providing the latter is the case, please refer to the [Tomcat Documentation](#) for more detailed setup and administration information than is found in the INSTALL file.

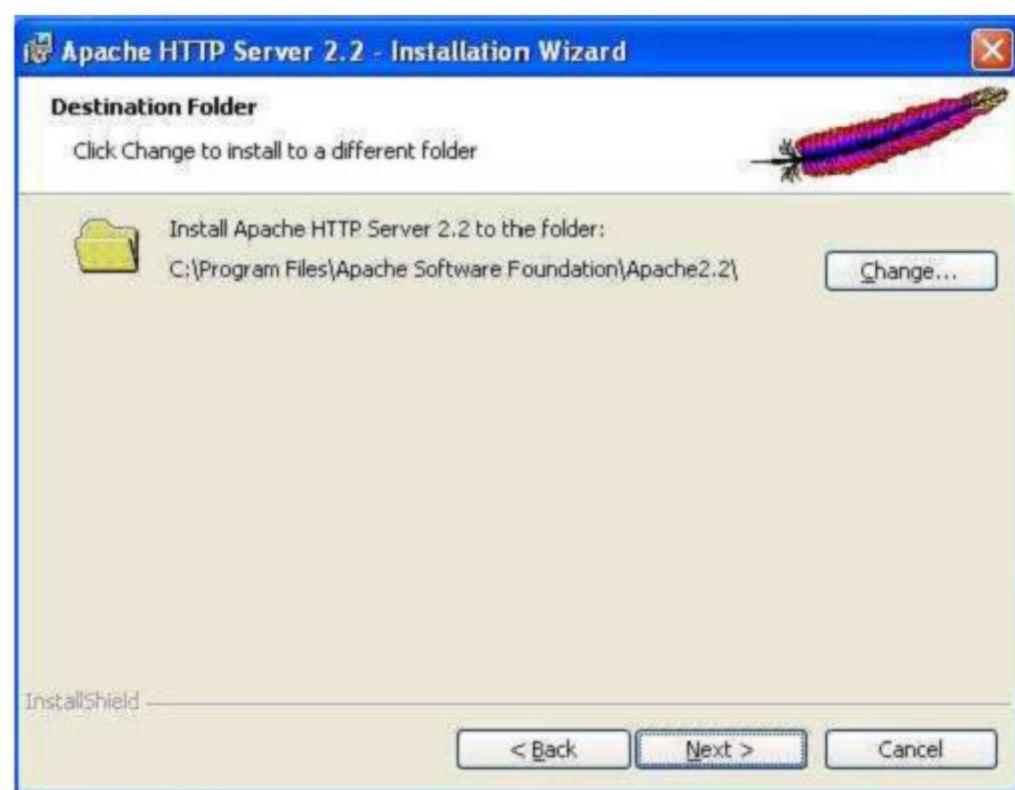
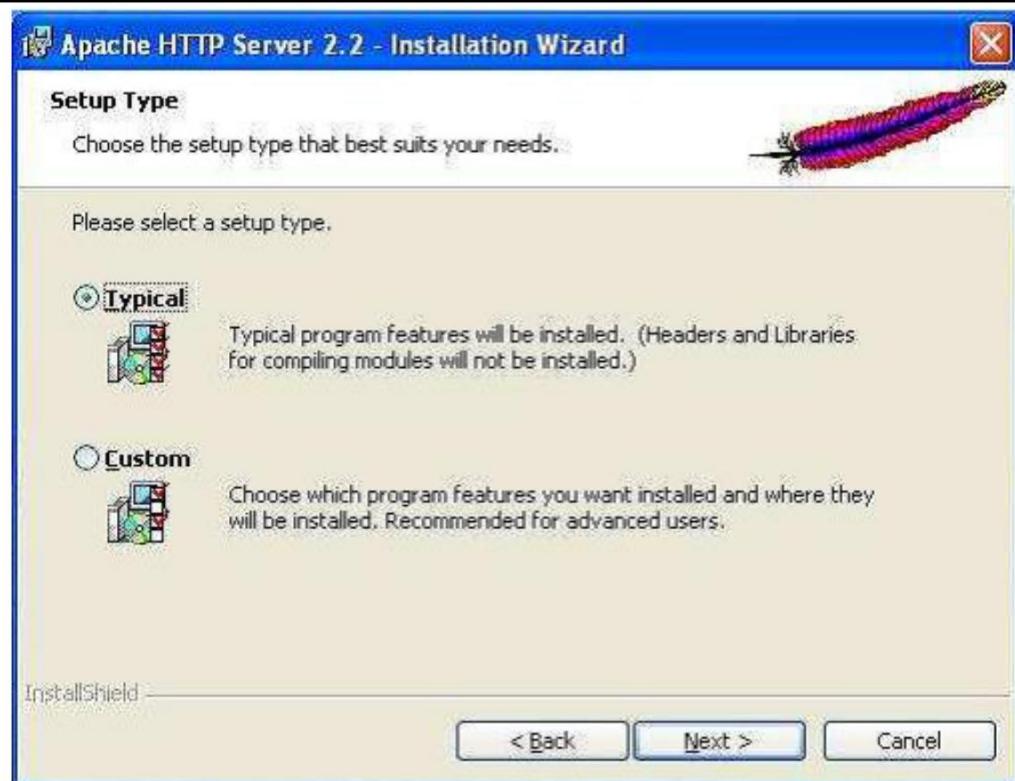
NOTE: This page is precompiled. If you change it, this page will not change since it was compiled into a servlet at build time. (See `$CATALINA_HOME/webapps/ROOT/WEB-INF/web.xml` as to how it was mapped.)

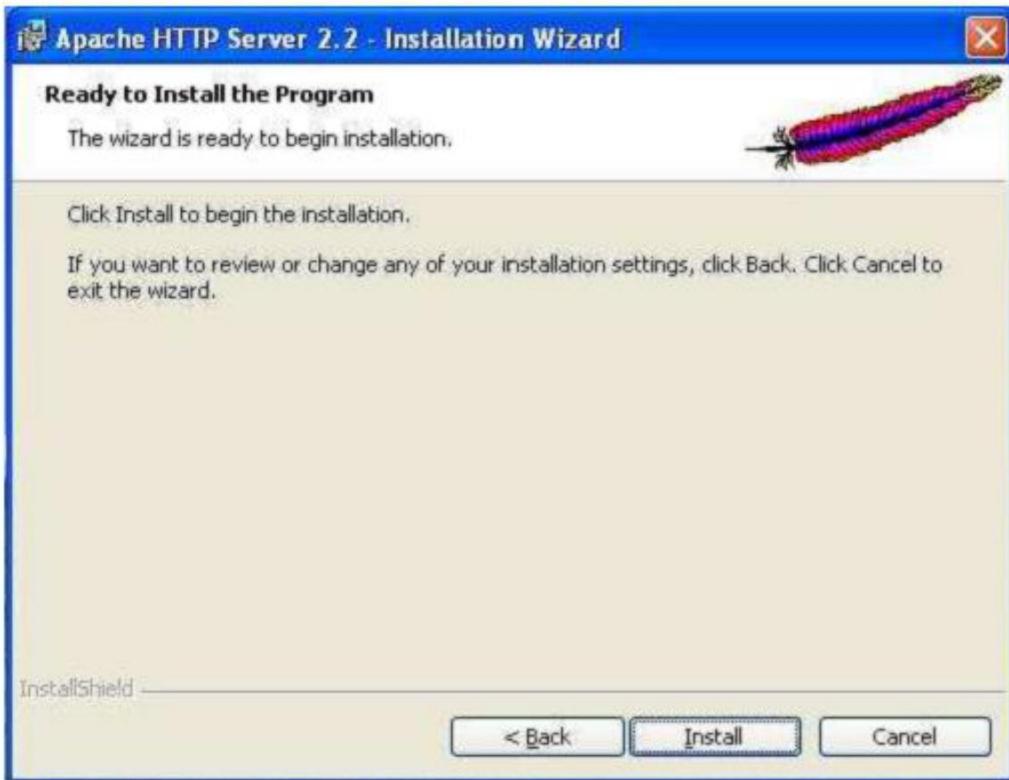
NOTE: For security reasons, using the administration webapp is restricted to users with role "admin". The manager webapp is restricted to users with role "manager". Users are defined in `$CATALINA_HOME/conf/tomcat-users.xml`.

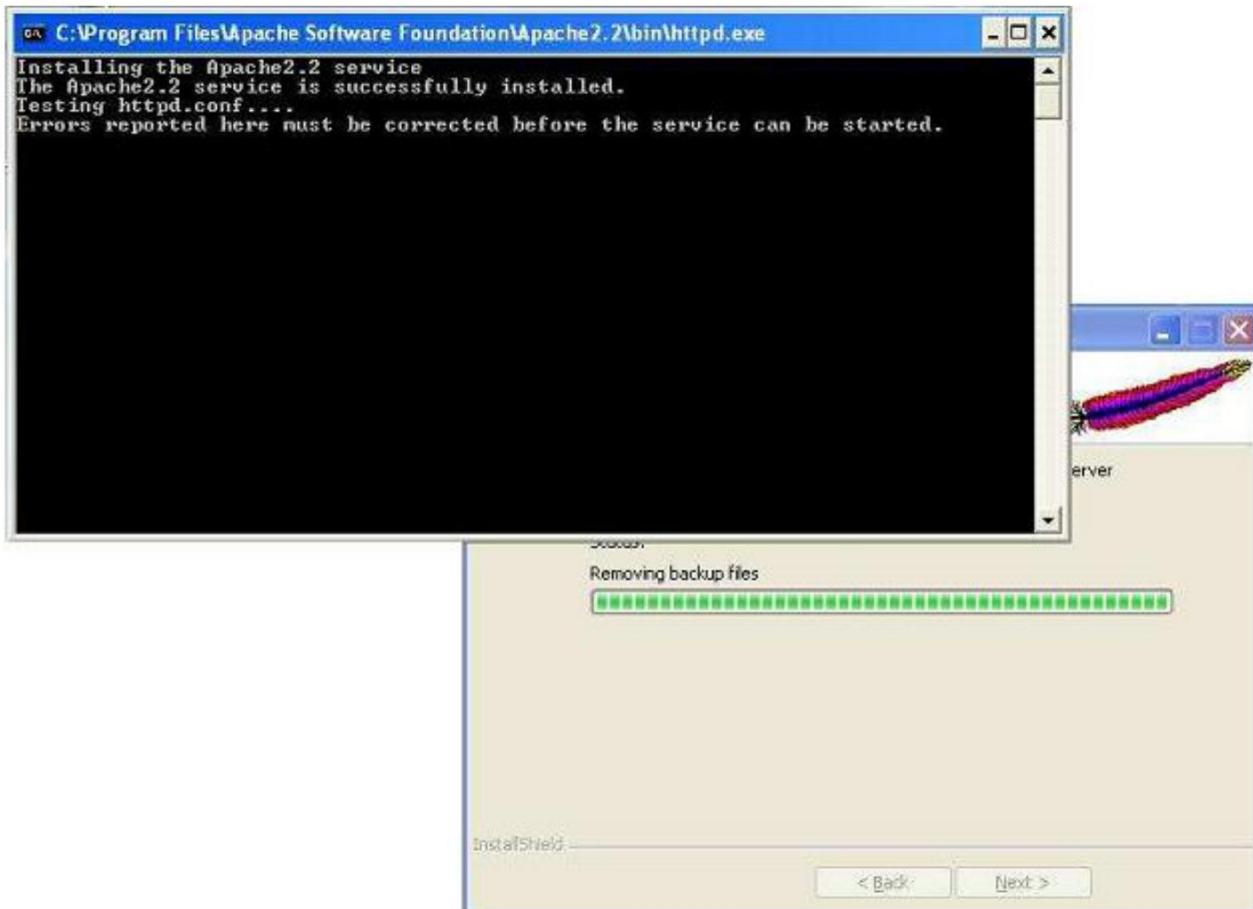
Included with this release are a host of sample Servlets and JSPs (with associated source

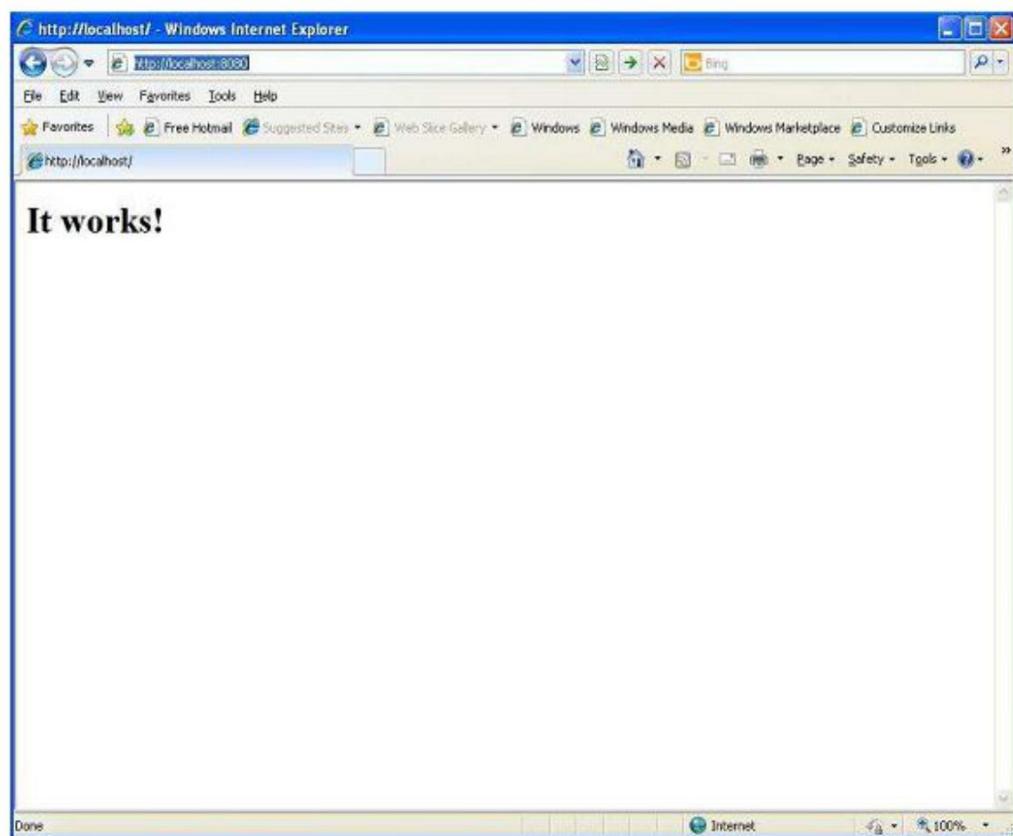
Installation of Apache web server











2) Access the above developed static web pages for books web site, using these servers by putting the web pages developed in week-1 and week-2 in the document root.
Access the pages by using the urls :
-<http://localhost:4040/rama/books.html> (for tomcat) -
<http://localhost:8080/books.html> (for Apache)

In Tomcat

The code written in week1, week2 and week3 just copy the complete files to the
C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\book

Web.xml

```
<web-app>
<display-name>Books</display-name>
<welcome-file-list>
<welcome-file>Homepage.html</welcome-file>
</welcome-file-list>
</web-app>
```

Now start the tomcat and run using the given below url (the port number we are using 8080 instead of 4040)

<http://localhost:8080/book/Homepage.html>

In Apache

The code written in week1, week2 and week3 just copy the complete files to
the C:\Program Files\Apache Software Foundation\Apache2.2\htdocs

Now start the apache and run using the given below url (the port number we are using 80 instead of 8080)

<http://localhost:80/Homepage.html>

Signature of the Faculty

WEEK-8**User Authentication:**

Assume four users user1, user2, user3 and user4 having the passwords pwd1,pwd2,pwd3 and pwd4 respectively. Write a Servlet for doing the following.

1. Create a Cookie and add these four user id's and passwords to this Cookie.

2. Read the user id and passwords entered in the Login form (week1) and authenticate with the values (user id and passwords) available in the cookies.

If he is a valid user(i.e., user-name and password match) you should welcome him by name(username)

else you should display “ You are not an authenticated user “.

(b) Use init-parameters to do this. Store the user-names and passwords in the web.xml and access them in the servlet by using the getInitParameters() method.

Save as **cookie1.java**

[Save in path C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\login2\WEB-INF\classes]

```
import java.io.*;
import java.util.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class cookie1 extends HttpServlet
{
    public void init(ServletConfig config) throws ServletException
    {
        super.init(config);
    }
    public void doPost(HttpServletRequest req, HttpServletResponse res) throws
IOException,ServletException
    {
        res.setContentType("text/html");
        PrintWriter out = res.getWriter();
        Cookie mycookie = new Cookie("null","null");
        Enumeration keys;
        String key,value;
        keys=req.getParameterNames();
        while(keys.hasMoreElements())
        {
            key = (String)keys.nextElement();
            value = req.getParameter(key);
            mycookie = new Cookie(value,key);

            res.addCookie(mycookie);
        }
        out.println("\nThe cookie is added!");
    }
}
```

Save as **getcookie.java**

[Save in path C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\login2\WEB-INF\classes]

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class getcookie extends HttpServlet
{
    public void doGet(HttpServletRequest req, HttpServletResponse res) throws
IOException,ServletException
    {
        res.setContentType("text/html");
        PrintWriter out = res.getWriter();
        Cookie[] mycookie = req.getCookies();
        String[] name = new String[10];
        String[] value = new String[10];
        int i=0;
        int n=mycookie.length;
        out.println("The number of cookies:"+n);
        for(i=0;i<n;i++)
        {
            name[i]=mycookie[i].getName();
            value[i]=mycookie[i].getValue();
        }
        for(i=0;i<n-1;i=i+2)
        {
            try
            {
                if(name[i].equals("pwd1"))
                {
                    if(name[i+1].equals("user1"))
                    {
                        out.println("WelCome"+name[i+1]);
                    }
                    else
                    {
                        out.println("Unauthorised User");
                    }
                }
                else if(name[i].equals("pwd2"))
                {
                    if(name[i+1].equals("user2"))
                    {
                        out.println("WelCome"+name[i+1]);
                    }
                    else
                    {
                        out.println("Unauthorised User");
                    }
                }
                else if(name[i].equals("pwd3"))
                {
                    if(name[i+1].equals("user3"))
                    {
                        out.println("WelCome"+name[i+1]);
                    }
                }
            }
        }
    }
}
```

```
else
{
out.println("Unauthorised User");
}
}
else if(name[i].equals("pwd4"))
{
if(name[i+1].equals("user4"))
{
out.println("WelCome"+name[i+1]);
}
else
{
out.println("Unauthorised User");
}
}
}
}
catch(Exception e)
{
out.println("Invalid username/password");
}
}
}
}
}
```

Save as **web.xml**

[Save in path C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\login2\WEB-INF]

```
<web-app>
<welcome-file-list>
<welcome-file>login.html</welcome-file>
</welcome-file-list>
<servlet>
<servlet-name> servlet1 </servlet-name>
<servlet-class> cookie1 </servlet-class>
</servlet>
<servlet>
<servlet-name> servlet2 </servlet-name>
<servlet-class> getcookie </servlet-class>
</servlet>
<servlet-mapping>
<servlet-name> servlet1 </servlet-name>
<url-pattern> /c1 </url-pattern>
</servlet-mapping>
<servlet-mapping>
<servlet-name> servlet2 </servlet-name>
<url-pattern> /gc </url-pattern>
</servlet-mapping>
</web-app>
```

Save as **login.html**

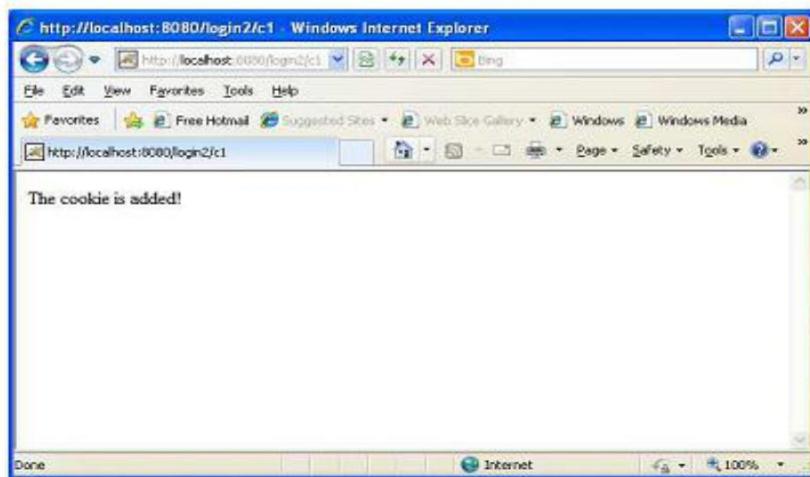
[Save as C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\login2]

```
<html>
<head><title>Input Form</title></head>
<body>
<center>
<h3>Login Page</h3>
<form name="login" method="post" action="http://localhost:8080/login2/c1">
<table>
<tr>
<td>Username:</td>
<td><input type="text" name="username"></td>
</tr>
<tr>
<td>Password:</td>
<td><input type="password" name="password"></td>
</tr>
</table>
<input type="submit" value="Enter">
</form>
</center>
</body>
</html>
```

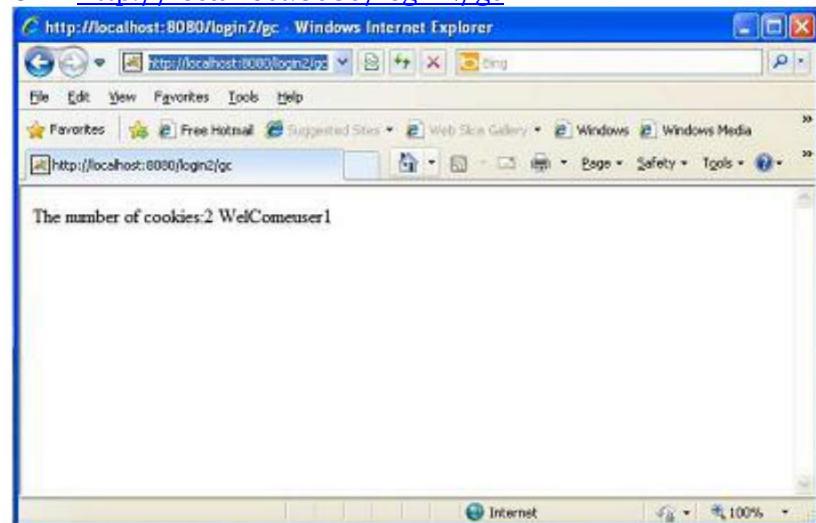
URL <http://localhost:8080/login2>

Username: user1

Password: pwd1



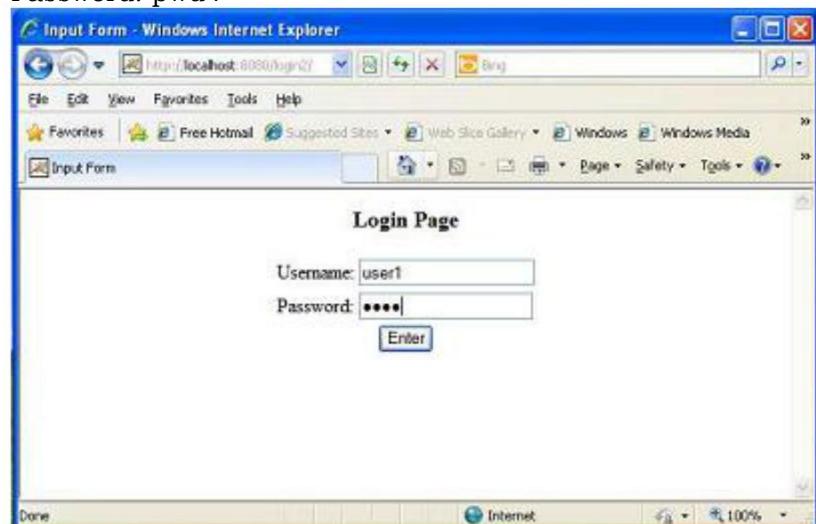
URL <http://localhost:8080/login2/gc>



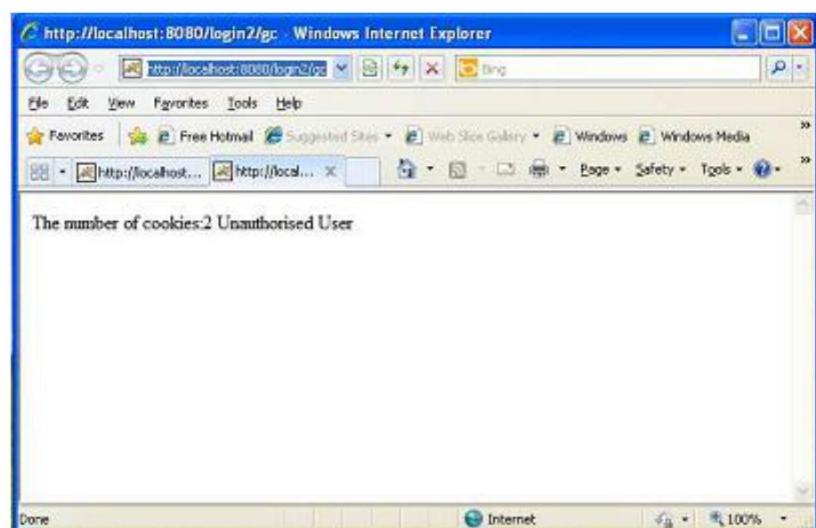
<http://localhost:8080/login2>

Username: user1

Password: pwd4



URL <http://localhost:8080/login2/gc>



(b) Use init-parameters to do this. Store the user-names and passwords in the web.xml and access them in the servlet by using the getInitParameters() method.

Save as **initparam.java**

[Save in path C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\login\WEB-INF\classes]

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class initparam extends HttpServlet
{
    public void doGet(HttpServletRequest req, HttpServletResponse res) throws
IOException, ServletException
    {
        res.setContentType("text/html");
        PrintWriter out = res.getWriter();
        String username1=getServletConfig().getInitParameter("username1");
        String password1=getServletConfig().getInitParameter("password1");
        String username2=getServletConfig().getInitParameter("username2");
        String password2=getServletConfig().getInitParameter("password2");
        String username3=getServletConfig().getInitParameter("username3");
        String password3=getServletConfig().getInitParameter("password3");
        String username4=getServletConfig().getInitParameter("username4");
        String password4=getServletConfig().getInitParameter("password4");

        String un= req.getParameter("username"); String p=
        req.getParameter("password");
        if((username1.equals(un))&&(password1.equals(p))) ||
        ((username2.equals(un))&&(password2.equals(p))) ||
        ((username3.equals(un))&&(password3.equals(p))) ||
        ((username4.equals(un))& &(password4.equals(p)))) {
            out.println("<b>WelCome to "+un+"</b>");
        }
        else
        {
            out.println("<b>Unauthorised User</b>");
        }
    }
}
```

Save as **Web.xml**

[Save in path C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\login\WEB-INF]

```
<web-app>
<welcome-file-list>
<welcome-file>login.html</welcome-file>
</welcome-file-list>
<servlet>
<servlet-name>servlet10</servlet-name>
<servlet-class>initparam</servlet-class>
<init-param>
<param-name>username1</param-name>
```

```
<param-value>user1</param-value>
</init-param>
<init-param>
<param-name>password1</param-name>
<param-value>pwd1</param-value>
</init-param>
<init-param>
<param-name>username2</param-name>
<param-value>user2</param-value>
</init-param>
<init-param>
<param-name>password2</param-name>
<param-value>pwd2</param-value>
</init-param>
<init-param>
<param-name>username3</param-name>

<param-value>user3</param-value>
</init-param>
<init-param>
<param-name>password3</param-name>
<param-value>pwd3</param-value>
</init-param>
<init-param>
<param-name>username4</param-name>
<param-value>user4</param-value>
</init-param>
<init-param>
<param-name>password4</param-name>
<param-value>pwd4</param-value>
</init-param>
</servlet>
<servlet-mapping>

<servlet-name>Servlet10</servlet-name>
<url-pattern>/initparam</url-pattern>
</servlet-mapping>
</web-app>
```

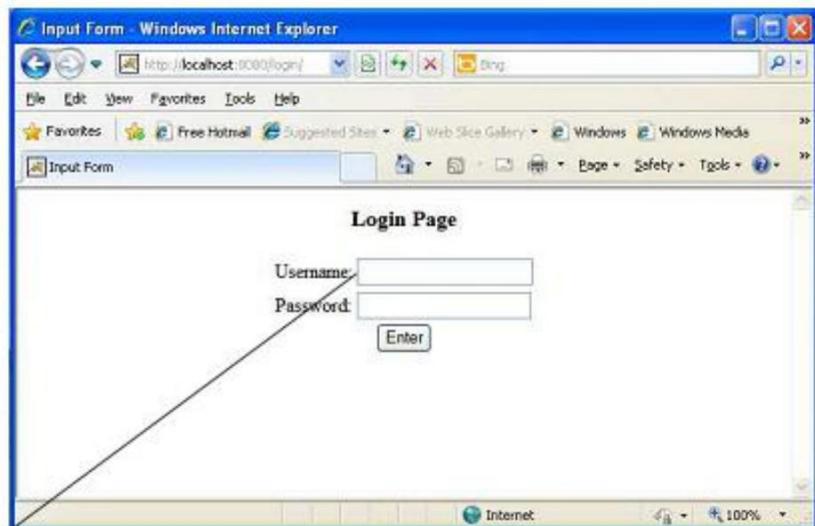
Save as **login.html**

[Save in path C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\login]

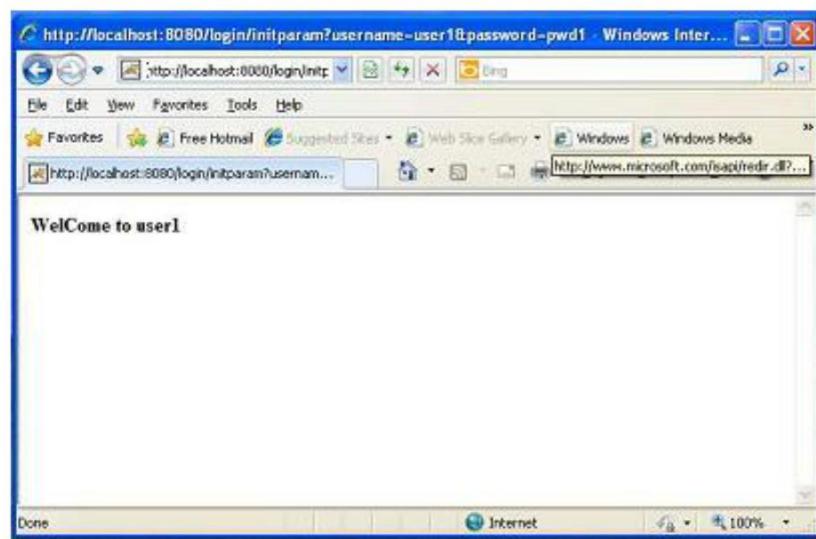
```
<html>
<head>
<title>Input Form</title>
</head>
<body>
<center>
<h3>Login Page</h3>
<form name="login" method="get" action="http://localhost:8080/login/initparam">
<table>
<tr>
<td>Username:</td>
<td><input type="text" name="username"></td>
</tr>
<tr>
```

```
<td>Password:</td>
<td><input type="password" name="password"></td>
</tr>
</table>
<input type="submit" value="Enter">
</form>
</center>
</body>
</html>
```

URL <http://localhost:8080/login>

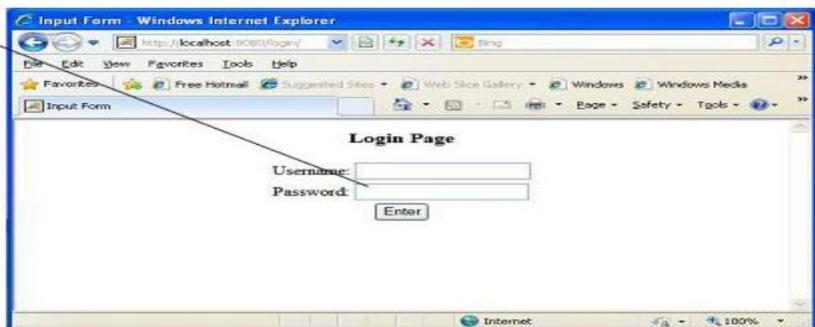


Username: user1
Password: pwd1



URL <http://localhost:8080/login2>

Username: user1
Password: pwd4



Result



Exercise

1. Create a HTML form with three input fields first name, last name and e-mail. Pass the values to servlet. In the servlet, verify all input fields are not null and display them back to the client.

Signature of the Faculty

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WEEK-9

a) Install a database (Mysql or Oracle).

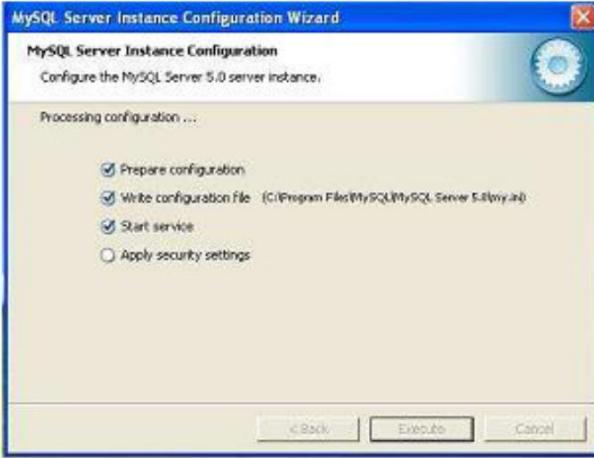
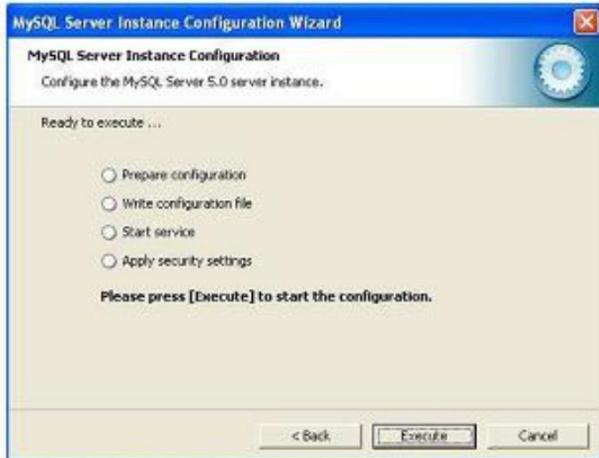
Create a table which should contain at least the following fields: name, password, email-id, phone number (these should hold the data from the registration form).

Practice 'JDBC' connectivity.

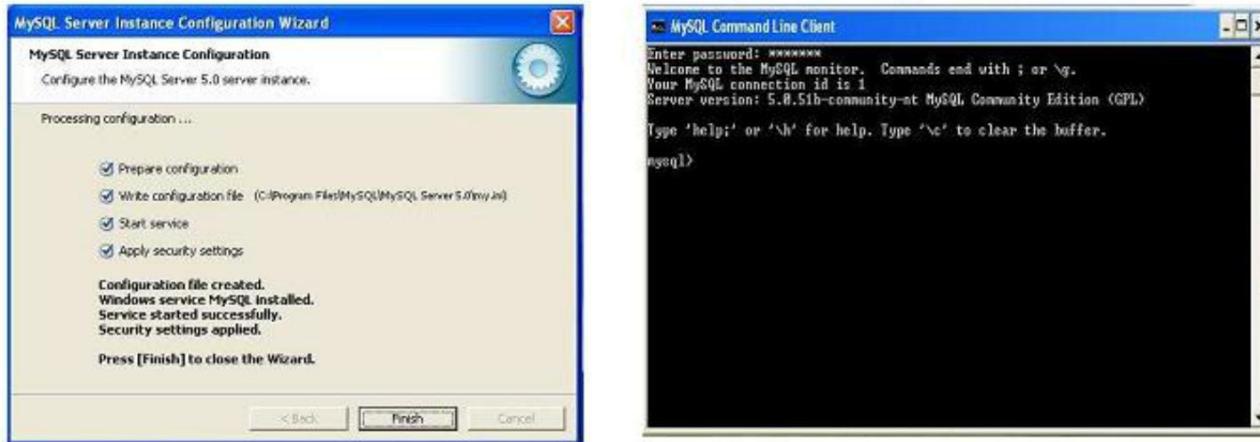
b) Write a java program/servlet/JSP to connect to that database and extract data from the tables and display them. Experiment with various SQL queries. Insert the details of the users who register with the web site, whenever a new user clicks the submit button in the registration page (week2).Installing the database Mysql.







Goto Start->All Programs->MySQL->MySQL Server5.0->MySQL Command Line Client



Set the path for the Mysql and JSP (Set the Environment Variables)

user variable:

Variable name: classpath

Variable value: C:\Program Files\Apache Software Foundation\Tomcat 5.5\common\lib\servletapi.

jar;.;C:\Program Files\Apache Software Foundation\Tomcat 5.5\common\lib\jsp-api;.;C:\Program Files\Apache Software Foundation\Tomcat 5.5\common\lib\mysql-connector-java-5.0.8-bin.jar - Download the file "**mysql-connector-java-5.0.8-bin.jar**" and copy the file in the path

"C:\Program Files\Apache Software Foundation\Tomcat 5.5\common\lib

mysql> create database students;

Query OK, 1 row affected (0.00 sec)

mysql> use students;

Database changed

mysql> create table CSE(sname varchar(10),password varchar(10),email varchar(10),mobile varchar(10));

Query OK, 0 rows affected (0.06 sec)

mysql> select * from CSE;

Empty set (0.00 sec)

Save as **StudentForm.jsp**

```
<%@ page language="java" import="java.sql.*" %>
<%@ page import="java.io.*" %>
<%
Connection conn=null;
ResultSet rs=null;
Statement stmt=null;
Class.forName("com.mysql.jdbc.Driver").newInstance();

conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/students","root","manager");
out.write("Connected to mysql!!!");
stmt=conn.createStatement();
if(request.getParameter("action") != null)
{
String sname=request.getParameter("sname");
String password=request.getParameter("password");
String email=request.getParameter("email");
```

```
String mobile=request.getParameter("mobile");
stmt.executeUpdate("insert into CSE values(\""+sname+"','"+password+"','"+email+"','"+mobile+"\")");
rs=stmt.executeQuery("select * from CSE");
%>
<html>
<head>
<style type="text/css">
h2,b
{
color:rgb(59,156,150);
}
</style>
</head>
<body>
<center>
<h2>Student List</h2>
<table border="1" cellspacing="0" cellpadding="0">
<tr>
<td><b>&nbsp;&nbsp;S.No&nbsp;&nbsp;</b></td>
<td><b>&nbsp;&nbsp;Name&nbsp;&nbsp;</b></td>
<!-- <td><b>Password</b></td> -->
<td><b>&nbsp;&nbsp;Email&nbsp;&nbsp;</b></td>
<td><b>&nbsp;&nbsp;Mobile&nbsp;&nbsp;</b></td>
</tr>
<%
int num=1;
while(rs.next())
{
%>
<tr>
<td><%=num%></td>
<td><%=rs.getString("sname")%></td>
<!-- <td><%=rs.getString("password")%></td> --
> <td><%=rs.getString("email")%></td>
<td><%=rs.getString("mobile")%></td> </tr>

<%
num++;
}

rs.close();
stmt.close();
conn.close();
%>
</table>
</center>
</body>
</html>
<%
}
else
{
%>

<html>
<head>
<title>Student Registrartion Demo</title>
```

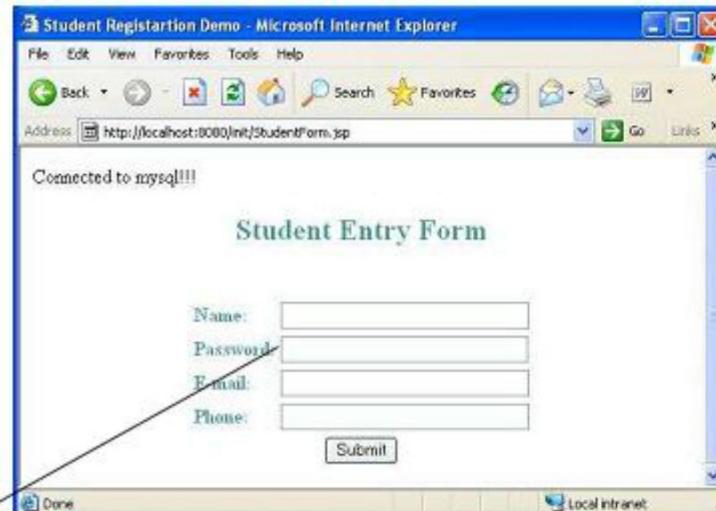
```
<script language="javascript">
function validation(Form_obj)
{
if(Form_obj.sname.value.length==0)
{
alert("Please,fill up the remaining information!!");
Form_obj.sname.focus();
return false;
}
if(Form_obj.password.value.length==0)
{
alert("Please,fill up the remaining information!!");
Form_obj.password.focus();
return false;
}
if(Form_obj.email.value.length==0)
{
alert("Please,fill up the remaining information!!");
Form_obj.email.focus();
return false;
}
if(Form_obj.mobile.value.length==0)
{
alert("Please,fill up the remaining information!!");
Form_obj.mobile.focus();
return false;
}
return true;
}
</script>
<style type="text/css">
dddb
{
color:rgb(59,156,150);
}
</style></head>
</body>
<center>
<form action="StudentForm.jsp" method="post" name="entry" onSubmit="return validation(this)"> <input type="hidden" value="list" name="action">
<table border="0" cellpadding="0" cellspacing="0">
<tr>
<td>
<table>
<tr>
<td colspan="2" align="center">
<h2><b>Student Entry Form</b></h2></td>
</tr>
<tr>
<td colspan="2">&nbsp;</td>
</tr>
<tr>
<td><b>Name:</b></td>
<td><input name="sname" type= "text" size="30"></td>
</tr>
<tr>
<td><b>Password:</b></td>
```

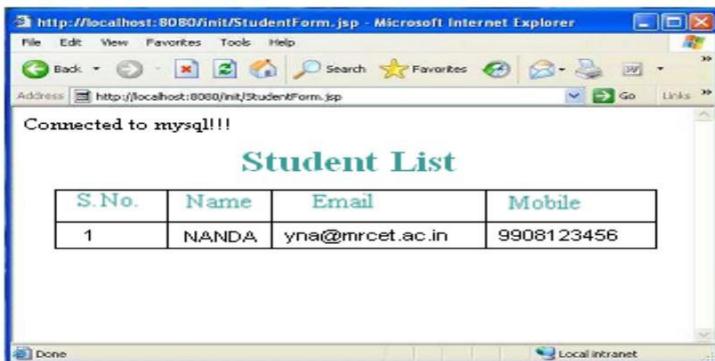
```
<td><input name="password" type= "password" size="30"></td>
</tr>
<tr>
<td><b>E-mail:</b></td>
<td><input name="email" type="text" size="30"></td>
</tr>
<td><b>Phone:</b></td>
<td><input name="mobile" type="text" size="30"></td>
</tr>
<tr>
<td colspan="2" align="center">
<input type="submit" value="Submit"></td>
</tr>
</table>
</td>
</tr>
</table>
</form>
</center>
</body>
</html>

<%
}
%>
```

Save the **StudentForm.jsp** file in the path

C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\jsp
Now start the tomcat services and URL **http://localhost:8080/jsp/StudentForm.jsp**
Enter the student details: name, password, email, mobile





Press **Submit** button the data entered in the fields will be added to the database and shown as in the given below

Check whether data added in the database

Goto **Start->All Programs->MySql->MySql Server5.0->MySql Command Line Client**

mysql> select * from CSE;

```
+-----+-----+-----+
| sname | password | email           | mobile      |
+-----+-----+-----+
| yna   | pwd       | yna@mrcet.ac.in | 9908123456 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

To see the student details:

Save as **StudentDetails.jsp**

```
<%@ page language="java" import="java.sql.*" %>
<%@ page import="java.io.*" %> <%
Connection conn=null;
ResultSet rs=null;
Statement stmt=null;
Class.forName("com.mysql.jdbc.Driver").newInstance();
conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/students","root","manager");
out.write("Connected to mysql!!!");
stmt=conn.createStatement();
rs=stmt.executeQuery("select * from CSE");
%>
<html><head>
<style type="text/css">
h2,b
{
color:rgb(59,156,150);
}
</style></head>
<body>
<center>
<h2>Student List</h2>
<table border="1" cellspacing="0" cellpadding="0">
<tr>
<td><b>&nbsp;&nbsp;S.No&nbsp;&nbsp;</b></td>
<td><b>&nbsp;&nbsp;Name&nbsp;&nbsp;</b></td>
```

```
<td><b>&nbsp;&nbsp;Email&nbsp;&nbsp;</b></td>
<td><b>&nbsp;&nbsp;Mobile&nbsp;&nbsp;</b></td>
</tr>
<%
int num=1;
while(rs.next())
{
%
<tr>
<td><%=num%></td>
<td><%=rs.getString("sname")%></td>
<td><%=rs.getString("email")%></td>
<td><%=rs.getString("mobile")%></td>
</tr>
<%
num++;
}
rs.close();
stmt.close();
conn.close();
%
</table>
</center>
</body>
</html>
```

URL: <http://localhost:8080/jsp/StudentDetails.jsp>

Exercises

- 1)Write a program to transfer some amount from source account to destination account .
- 2)Write a program to list all the students available from the database.

Signature of the Faculty

Signature of the