NRI INSTITUTE OF INFORMATION SCIENCE & TECHNOLOGY BHOPAL

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

LAB MANUAL

Web Engineering

(CS – 802)

BACHELOR OF ENGINEERING (B.E)

NIIST BHOPAL		NRI INSTITUTE OF INFORMATION SCIENCE & TECHNOLOGY DEPT NAME: Computer Science & Engineering	FORM NO	NIIST/A/10
BRANCH	CSE	LIST OF EXPERIMENT	REV. NO	0
SEMESTER	VIII		REV. DT	30/06/2011
SUBJECT/CODE :- WEB ENGINEERING / CS 802				

S. NO.	LIST OF EXPERIMENT
1	Write html code to: 1. perform Text formatting, 2. Insert contact information.
2	Write html code to: 1. Show how to mark deleted and inserted text, 2. Show how to insert horizontal lines.
3	Write html code to: 1. Preformatted text (how to control line breaks and spaces), 2. Create hyperlinks
4	Write html code to: 1. open link in a new browser window, 2. Jump to another part of a document
5	Write html code to: 1. Create password field, 2. Specify a title for a document
6	Write DHTML code to Shake the window
7	Write DHTML code to Drop down navigation (select box).
8	Write DHTML code to demonstrate Cursor position.
9	Write a Program that show online exam using JavaScript.
10	Write a Program for form validation using JavaScript.

Subject Name: Web Engineering (Practical)

Subject Code: CS-802

Course Outcomes:

After completion of this course students will be able to

CO1: design webpage in HTML using different tags link & list.

CO2: Students will be able to design webpage using HTML table & frame.

CO3: design webpage using XML and Study of different web sources: - IIS, Apache, WAMP.

CO4: implement security mechanism in web page for user authentication and authorization.

CO5: implement online payment system for E-Commerce website.

EXPERIMENT 1

1. TITLE: Write html code to: 1. perform Text formatting, 2. Insert contact information.

2. OBJECTIVES: At the end of the program students will able to understand

- About HTML tags.
- How to run Web Page.

3 SUBJECT RELATED OUTCOMES

- Learn how to HTML tags work.
- How we can create Static Page.

4. THEORY: Hyper Text Markup Language (HTML) is the main markup language for creating web pages and other information that can be displayed in a web browser

Write HTML Using Notepad or TextEdit

HTML can be edited by using a professional HTML editor like:

- Adobe Dreamweaver
- Microsoft Expression Web
- CoffeeCup HTML Editor

However, for learning HTML we recommend a text editor like Notepad (PC) or TextEdit (Mac).

We believe using a simple text editor is a good way to learn HTML.

Follow the 4 steps below to create your first web page with Notepad.

Step 1: Open Notepad

To open Notepad in Windows 7 or earlier:

Click **Start** (bottom left on your screen). Click **All Programs**. Click **Accessories**. Click **Notepad**.

To open Notepad in Windows 8 or later:

Open the **Start Screen** (the window symbol at the bottom left on your screen). Type **Notepad**.

Step 2: Write Some HTML

Write or copy some HTML into Notepad.

Step 3: Save the HTML Page

Save the file on your computer.

Select **File > Save as** in the Notepad menu.

You can use either .htm or .html as file extension. There is no difference, it is up to you.

Step 4: View HTML Page in Your Browser

Double-click your saved HTML file

5. ASSESMENT: Logic: 30%

Error free output: 40%

Submission of program 30%

6. CONCLUSION:

This experiment is to study how to use tags to perform Text formatting & insert contact information.

7. Source Code:

Source Code 1 to Perform Text formatting:

```
<html>
<body>
<p><b>This text is bold</b></p>
<p><strong>This text is strong</strong></p>
<p><big>This text is big</big></p>
<p><em>This text is emphasized</em></p>
<p><i>This text is italic</i></p>
<p><small>This text is small</small></p>
<p>This is<sub> subscript</sub> and <sup>superscript</sup></p>
</body>
</html>
```

Output 1:

This text is bold

This text is strong

This text is big

This text is emphasized

This text is italic

<html>

<body>

```
<address>

Written by NIIST<br />

<a href="mailto:us@example.org">Email us</a><br />

Address: Bhopal, M.P..<br />

Phone: +12 34 56 78

</address>

</body>

</html>
```

Output 2:

Written by NIIST
Email us
Bhopal, M.P..
Phone: +12 34 56 78

EXPERIMENT 2

1. TITLE: Write html code to: 1. Show how to mark deleted and inserted text, 2. Show how to insert horizontal lines.

2. OBJECTIVES: At the end of the program students will able to understand

- How to mark deleted insert and insert text using HTML tags.
- How to insert line in web page.

3. SUBJECT RELATED OUTCOMES

- Learn how to HTML tag works to mark deleted and inserted text.
- How we can create Static Page and insert horizontal lines.

4. THEORY: HTML Tags

HTML tags are **keywords** (tag names) surrounded by **angle brackets**:

<tagname>content</tagname>

- HTML tags normally come **in pairs** like and
- The first tag in a pair is the **start tag,** the second tag is the **end tag**
- The end tag is written like the start tag, but with a **slash** before the tag name.

HTML Formatting Elements

In the previous chapter, you learned about HTML **styling**, using the HTML **style attribute**.

HTML also defines special **elements**, for defining text with a special **meaning**.

HTML uses elements like <b> and <i> for formatting output, like **bold** or *italic* text.

Formatting elements were designed to display special **types of text**:

- Bold text
- Important text
- Italic text
- Emphasized text
- Marked text
- Small text
- Deleted text
- Inserted text
- Subscripts
- Superscripts

5. ASSESMENT: Logic: 30%

Error free output: 40%

Submission of program 30%

6. CONCLUSION:

This experiment is to study how to use HTML to Show how to mark deleted and inserted text & how to insert horizontal lines.

7. Source Code:

Source Code 1 to Show how to mark deleted and inserted text:

```
<html>

<body>

<p>My favorite color is <del>blue</del> <ins>red</ins>!</p>

<p>Notice that browsers will strikethrough deleted text and underline inserted text.</p>

</body>

</html>
```

Output 1:

My favorite color is ~~blue~~ red!

Notice that browsers will strikethrough deleted text and underline inserted text.

Source Code 2 to Show how to insert horizontal lines:

```
<html>

<body>

<p>The hr tag defines a horizontal rule:</p>

<hr />

<p>This is a paragraph</p>

<hr />

<p>This is a paragraph</p>

<hr />
```

```
<p>This is a paragraph</p>

</body>

</html>
```

Output 2:

The hr tag defines a horizontal rule:

This is a paragraph

This is a paragraph

EXPERIMENT 3

1. TITLE: Write html code to: 1. Preformatted text (how to control line breaks and spaces), 2. Create hyperlinks.

2. OBJECTIVES: At the end of the program students will able to understand

- How to control line breaks and spaces.
- How to create hyperlinks.

3. SUBJECT RELATED OUTCOMES

- Learn how to use HTML to line breaks and spaces.
- How we can create hyperlinks.

4. THEORY:

HTML Links - Hyperlinks

HTML links are hyperlinks.

A hyperlink is an element, a text, or an image that you can click on, and jump to another document.

HTML Links - Syntax

In HTML, links are defined with the **<a>** tag:

Link Syntax:

link text

The **href** attribute specifies the destination address (http://www.w3schools.com/html/)

The **link text** is the visible part

5. ASSESMENT: Logic: 30%

Error free output: 40%

Submission of program 30%

6. CONCLUSION:

This experiment is to study how to use HTML to control line breaks and spaces & to create hyperlinks.

7. Source Code:

Source Code 1 to control line breaks and spaces:

<html>

<body>

```
<pre>

This is preformatted text.

It preserves both spaces and line breaks.

</pre>

<p>The pre tag is good for displaying computer code:</p>

<pre>

for i = 1 to 10

    print i

next i

</pre>

</body>

</html>
```

Output 1:

```
This is
preformatted text.
It preserves      both spaces
and line breaks.
```

The pre tag is good for displaying computer code:

```
for i = 1 to 10
     print i
```

```
<body>

<p>

<a href="default.asp">HTML Tutorial</a> This is a link to a page on this website.

</p>  <p>

<a href="http://www.google.com/">Google</a> This is a link to a website on the World Wide Web.

</p>

</body>
```

Output 2:

HTML Tutorial This is a link to a page on this website.

Google This is a link to a website on the World Wide Web.

EXPERIMENT 4

1. TITLE: Write html code to: 1. Open link in a new browser window, 2. Jump to another part of a document

2. OBJECTIVES: At the end of the program students will able to understand

- How to use HTML tags for "Open link in a new browser window" functionality.
- How to Jump to another part of a document in static page.

3. SUBJECT RELATED OUTCOMES

- Learn how to use code HTML to open link in a new browser window.
- How we can create code for Jump to another part of a document in static page.

4. THEORY:

HTML Links - The target Attribute

The **target** attribute specifies where to open the linked document.

This example will open the linked document in a new browser window or in a new tab:

Example

```
<a href="http://www.w3schools.com/" target="_blank">Visit W3Schools!</a>
```

Target Value	Description
_blank	Opens the linked document in a new window or tab
_self	Opens the linked document in the same frame as it was clicked (this is default)
_parent	Opens the linked document in the parent frame
_top	Opens the linked document in the full body of the window
framename	Opens the linked document in a named frame

5. ASSESMENT: Logic: 30%

Error free output: 40%

Submission of program 30%

6. CONCLUSION:

This experiment is to study how to use HTML to open link in a new browser window & Jump to another part of a document

7. Source Code:

Source Code 1 to open link in a new browser window:

```
<html>

<body>

<a href="http://www.nrigroupindia.com" target="_blank">Visit nrigroupindia.com!</a>

<p>If you set the target attribute to "_blank", the link will open in a new browser window.</p>

</body>

</html>
```

Output 1:

Visit nrigroupindia.com!

If you set the target attribute to "_blank", the link will open in a new browser window.

Source Code 2 to Jump to another part of a document:

```
<html>

<body>

<p>

<a href="#C4">See also Chapter 4.</a>

</p>

<h2>Chapter 1</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 2</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 3</h2>

<p>This chapter explains ba bla bla</p>
```

```
<h2><a name="C4">Chapter 4</a></h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 5</h2>

<p>This chapter explains ba bla bla</p>

</body>

</html>
```

Output 2:

See also Chapter 4.

Chapter 1

This chapter explains ba bla bla

Chapter 2

This chapter explains ba bla bla

Chapter 3

This chapter explains ba bla bla

Chapter 4

EXPERIMENT 5

1. TITLE: Write html code to: 1. Create password field, 2. Specify a title for a document

2. OBJECTIVES: At the end of the program students will able to understand

- How to use HTML tags to create password field
- How to specify a title for a document.

3. SUBJECT RELATED OUTCOMES

- Learn how to use code HTML to create password field.
- How we can create code for Specify a title for a document in static page.

4. THEORY:

HTML Forms

The <form> Element

HTML forms are used to collect user input.

The **<form>** element defines an HTML form

HTML forms contain **form elements**.

Form elements are different types of input elements, checkboxes, radio buttons, submit buttons, and more.

The <input> Element

The **<input>** element is the most important **form element**.

The <input> element has many variations, depending on the **type** attribute.

Here are the types used in this chapter:

Type	Description
text	Defines normal text input
radio	Defines radio button input (for selecting one of many choices)
submit	Defines a submit button (for submitting the form)

When to Use POST?

You should use POST:

If the form is updating data, or includes sensitive information (password).

POST offers better security because the submitted data is not visible in the page address.

5. ASSESMENT: Logic: 30%

Error free output: 40%

Submission of program 30%

6. CONCLUSION:

This experiment is to study how to use HTML to create password field & Specify a title for a document.

7. Source Code:

Source Code 1 to specify a title for a document:

```
<html>
<body>
<form action="">
Username: <input type="text" name="user" /><br />
Password: <input type="password" name="password" />
</form>
<p><b>Note:</b> The characters in a password field are masked (shown as asterisks or circles).</p>
</body>
</html>
```

Output 1:

Username: cse

Password: *****

Note: The characters in a password field are masked (shown as asterisks or circles).

```
<head>
<title>My first HTML page</title>
</head>
<body>
```

```
<p>The content of the body element is displayed in the browser.</p>

<p>The content of the title element is displayed in the browser's title.</p>

</body>

</html>
```

Output 2:

The content of the body element is displayed in the browser.

The content of the title element is displayed in the browser's title.

EXPERIMENT 6

1. TITLE: Write DHTML code to shake the window.

2. OBJECTIVES: At the end of the program students will able to understand

- How to use DHTML to shake the window.

3. SUBJECT RELATED OUTCOMES

- Learn how to code DHTML to provide shaking window functionality in a web page.

4.THEORY: **Dynamic HTML**, or **DHTML**, is an umbrella term for a collection of technologies used together to create interactive and animated web sites by using a combination of a static markup language (such as HTML), a client-side scripting language (such as JavaScript), a presentation definition language (such as CSS), and the Document Object Model

5. ASSESMENT: Logic: 30%

Error free output: 40%

Submission of program 30%

6. CONCLUSION:

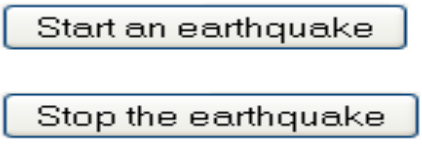
This experiment is to study how to use DHTML code to shake the window.

7. Source Code:

```
<html>
<head>
<script>
function startEQ()
{
richter=5;
parent.moveBy(0,richter);
parent.moveBy(0,-richter);
parent.moveBy(richter,0);
parent.moveBy(-richter,0);
timer=setTimeout("startEQ()",10);
}
```

```
function stopEQ()
{
clearTimeout(timer);
}
</script>
</head>
<body>
<form>
<input type="button" onclick="startEQ()" value="Start an earthquake">
<br />
<br />
<input type="button" onclick="stopEQ()" value="Stop the earthquake">
</form>
</body>
</html>
```

Output:



EXPERIMENT 7

1. TITLE: Write DHTML code to Drop down navigation (select box).

2. OBJECTIVES: At the end of the program students will able to understand

- How to use DHTML code to create selection box.

3. SUBJECT RELATED OUTCOMES

- Learn how to code DHTML to provide Drop down navigation functionality in a web page.

4. THEORY: HTML allows scripting languages to change variables in a web page's definition language, which in turn affects the look and function of otherwise "static" HTML page content, *after* the page has been fully loaded and during the viewing process. Thus the dynamic characteristic of DHTML is the way it functions while a page is viewed, not in its ability to generate a unique page with each page load.

5. ASSESMENT: Logic: 30%

Error free output: 40%

Submission of program 30%

6. CONCLUSION:

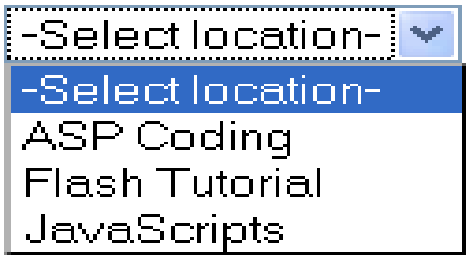
This experiment is to study how to use DHTML code to Drop down navigation (select box)..

7. Source Code:

```
<html>
<head>
<script type="text/javascript">
function go()
{
location=document.forms[0].gowhere.value;
}
</script>
</head>
<body>
<form>
<select id="gowhere" onchange="go()">
<option>-Select location-
```

```
<option value="/asp/default.asp">ASP Coding
<option value="/flash/default.asp">Flash Tutorial
<option value="/js/default.asp">JavaScripts
</select>
</form>
</body>
</html>
```

Output:



EXPERIMENT 8

1. TITLE: Write DHTML code to demonstrate Cursor position.

2. OBJECTIVES: At the end of the program students will able to understand

- How to use DHTML code to show cursor position.

3. SUBJECT RELATED OUTCOMES

- Learn how to code DHTML to show cursor position in a web page.

4. THEORY: DHTML allows authors to add effects to their pages that are otherwise difficult to achieve. In short words: scripting language is changing the DOM and page style.

Simply put, DHTML is the combination of HTML, CSS and JavaScript.

- Animate text and images in their document, independently moving each element from any starting point to any ending point, following a predetermined path or one chosen by the user.
- Embed a ticker that automatically refreshes its content with the latest news, stock quotes, or other data.
- Use a form to capture user input, and then process, verify and respond to that data without having to send data back to the server.
- Include rollover buttons or drop-down menus.

5. ASSESMENT: Logic: 30%

Error free output: 40%

Submission of program 30%

6. CONCLUSION:

This experiment is to study how to use DHTML code to demonstrate Cursor position.

7. Source Code:

```
<html>
<head>
<script type="text/javascript">
function show_coords(event)
{
x=event.clientX;
y=event.clientY;
alert("X coords: " + x + ", Y coords: " + y);
```

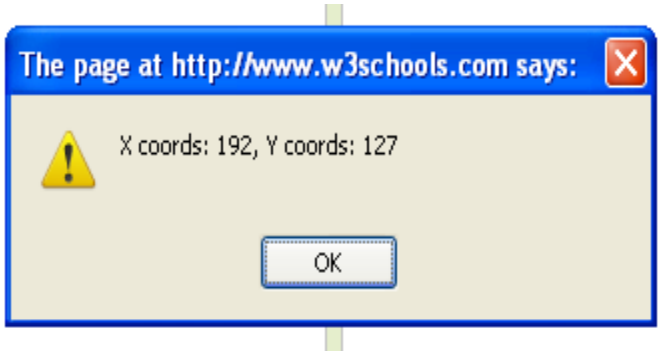
```
}
</script>
</head>
<body onmousedown="show_coords(event)">
<p>Click in the document. An alert box will alert the x and y coordinates of the cursor.</p>
</body>

</html>
```

Output:

Click in the document. An alert box will alert the x and y coordinates of the cursor.

Output:



EXPERIMENT 9

1. TITLE: Write a Program that show online exam using JavaScript.

2. OBJECTIVES: At the end of the program students will able to understand

- How to use Java Script code to create online exam.

3. SUBJECT RELATED OUTCOMES

- Learn how to code Java Script to create online exam in a web page.

4. THEORY: **JavaScript** is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed.[5] It is also used in server-side network programming with runtime environments such as Node.js, game development and the creation of desktop and mobile applications.

5. ASSESMENT: Logic: 30%

Error free output: 40%

Submission of program 30%

6. CONCLUSION:

This experiment is to study how to use java script code to show online exam.

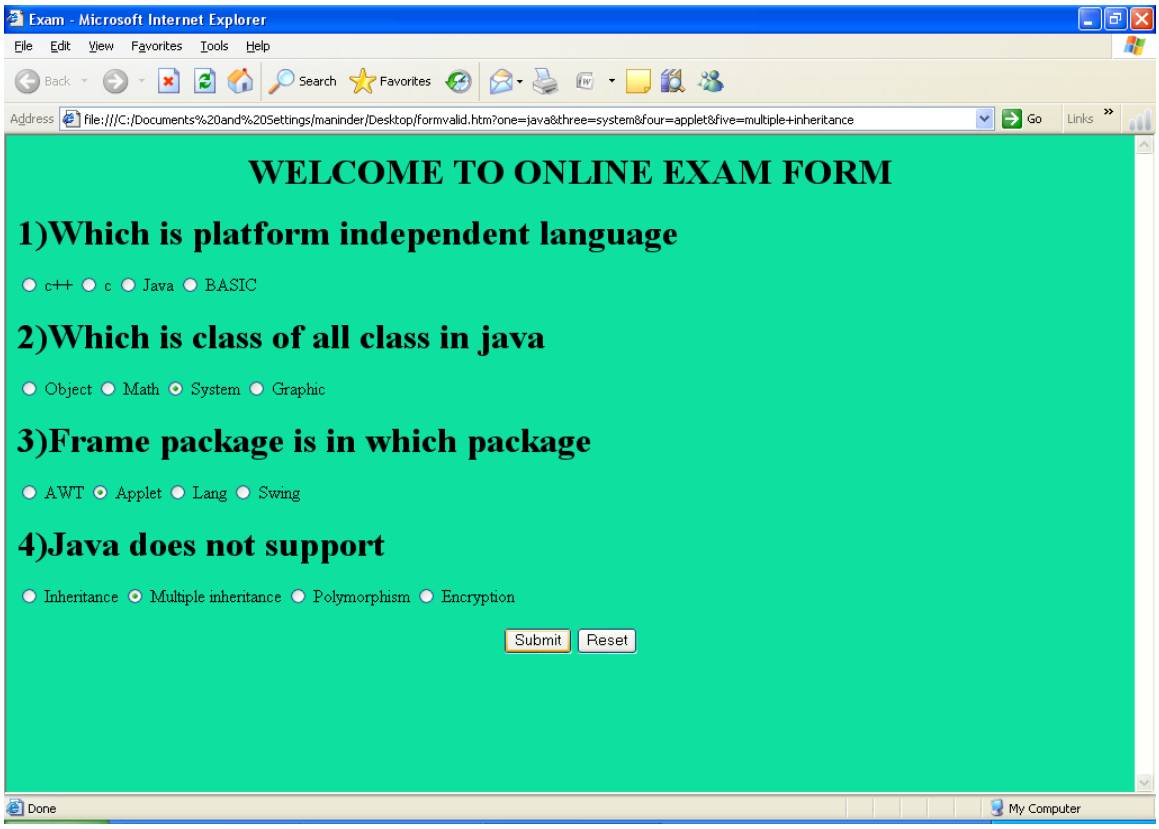
7. Source Code:

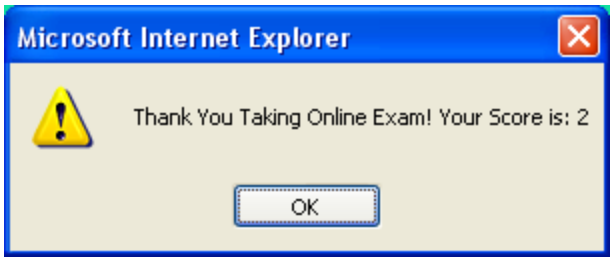
```
<html>
<head>
<title>Exam</title>
<script language=”javascript”>
 function exam(form)
  {
  var i=0;
  if(form.one[2].checked)
  i=i+1;
  if(form.three[0].checked)
  i=i+1;
  if(form.four[0].checked)
```

```
 i=i+1;
 if(form.five[1].checked)
 i=i+1;
 window.alert("Thank You Taking Online Exam! Your Score is: "+i);
 }
</script>
</head>
<body bgcolor=”megneta”>
<form onSubmit=”exam(this)”>
<center><h1><blink>WELCOME TO ONLINE EXAM FORM</blink></h1></center>
<p>
 <h1>1)Which is platform independent language</h1>
<input type=”radio” name=”one” value=”c++”>
<label>c++</label>
<input type=”radio” name=”one” value=”c”>
<label>c</label>
<input type=”radio” name=”one” value=”java”>
<label>java</label>
<input type=”radio” name=”one” value=”basic”>
<label>BASIC</label>
 </p>
 <p>
<h1>2) Which is class of all class in java</h1>
<input type=”radio” name=”three” value=”object”>
<label>Object</label>
<input type=”radio” name=”three” value=”math”>
<label>Math</label>
<input type=”radio” name=”three” value=”system”>
<label>System</label>
<input type=”radio” name=”three” value=”graphic”>
<label>Graphic</label> </p>
 <p>
<h1>3)Frame package is in which package</h1>
<input type=”radio” name=”four” value=”awt”>
<label>AWT</label>
```

```
<input type=”radio” name=”four” value=”applet”>
<label>Applet</label>
<input type=”radio” name=”four” value=”lang”>
<label>Lang</label>
<input type=”radio” name=”four” value=”swing”>
<label>Swing</label>
</p>
 <p>
 <h1>4)Java does not support</h1>
<input type=”radio” name=”five” value=”inheritance”>
<label>Inheritance</label>
<input type=”radio” name=”five” value=”multiple inheritance”>
<label>Multilple inheritance</label>
<input type=”radio” name=”five” value=”polymorphism”>
<label>Polymorphism</label>
<input type=”radio” name=”five” value=”encryption”>
<label>Encryption</label>
</p>
<p><center>
<input type=”submit” value=”Submit”>
<input type =”reset” value=”Reset”>
</center></p>
</body>
</html>
```

Output:


Exam - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address file:///C:/Documents%20and%20Settings/maninder/Desktop/formvalid.htm?one=java&three=system&four=applet&five=multiple+inheritance
Go Links
WELCOME TO ONLINE EXAM FORM
1)Which is platform independent language
c++ c Java BASIC
2)Which is class of all class in java
Object Math System Graphic
3)Frame package is in which package
AWT Applet Lang Swing
4)Java does not support
Inheritance Multiple inheritance Polymorphism Encryption
Submit Reset
Done
My Computer


Microsoft Internet Explorer
Thank You Taking Online Exam! Your Score is: 2
OK

EXPERIMENT 10

1. TITLE: Write a Program for form validation using JavaScript.

2. OBJECTIVES: At the end of the program students will able to understand

- How to use Java Script code for form validation.

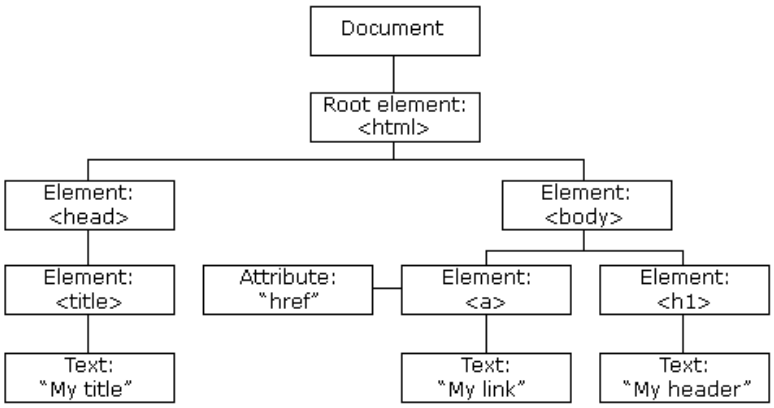
3. SUBJECT RELATED OUTCOMES

- Learn how to code Java Script for form validation in a web page.

4. THEORY: With the HTML DOM, JavaScript can access and change all the elements of an HTML document.

The HTML DOM (Document Object Model)

When a web page is loaded, the browser creates a **D**ocument **O**bject **M**odel of the page.



With the object model, JavaScript gets all the power it needs to create dynamic HTML:

- JavaScript can change all the HTML elements in the page
- JavaScript can change all the HTML attributes in the page
- JavaScript can change all the CSS styles in the page
- JavaScript can remove existing HTML elements and attributes
- JavaScript can add new HTML elements and attributes
- JavaScript can react to all existing HTML events in the page
- JavaScript can create new HTML events in the page

5. ASSESMENT: Logic: 30%

Error free output: 40%

Submission of program 30%

6. CONCLUSION:

This experiment is to study how to use java script code for form validation.

7. Source Code:

```
<html>
<head><title>Form Validation</title>
<script language="JavaScript">
function checkrequired(form)
{
   var pass=true;
   if (document.forms)
   {
      for (i=0;i<form.length;i++)
      {
      var tempobj=form.elements[i]
      if (tempobj.name.substring(0,8)=="required")
         {
            if(tempobj.type=="text"&&tempobj.value==")
            {
               alert("One or more of the required fields are not completed. Please complete them, then submit
again!")
               return false;
            } }
      }}

   else
   return true;
}
</script>
</head>

<body bgcolor="GREEN"><font color="white"  face="Cambria">
<h1><center><BLINK>FORM VALIDATION EXAMPLE 2</BLINK></center></h1>

<form onSubmit="return checkrequired(this)" onReset="imageslist(this)">
<pre>

   Name:        <input type="text" name="requiredname">*required
   EMail:       <input type="text" name="requiredemail">*required

   Hobby:       <select name="requiredhobby">
         <option>Select</option>
         <option>Writing</option>
         <option>Playing</option>
         <option>Listening to music</option>
         <option>Travelling</option>
```

```
<option>Gardening</option>
<option>Other</option>
</select>

Comments:  <textarea name="comments" wrap="NOWRAP"></textarea>
<P>
<input type="submit" value="Submit" name="submit">  <input type="reset" value="Reset" name="reset"></P>
</pre>
</form>
</body>
</html>
```

Output: