Introduction:--

Web has now touched millions of individuals in a way we never could have imagined as ten years ago. It is become more and more close to us. Now we use our e-mail address more than our postal address for any letter or such other purpose. Nearly very major companies advertising on television these days includes a "dot.com" address (i.e. web site) for viewers to visit to receive more information. People can check their bank balance, can book rail way tickets and many other things very easily by using internet.

The **World Wide Web** is a part of the internet. It relies on a common set of protocols that allow a server computer configured a certain way to distribute documents across internet in a standers way. The web standard allows programs on many different platforms to properly format and display the information served. These programs are called **Web browser**. It is use to view pages and navigate the World Wide Web. A wide array of web browser is available for just about every platform.

A program that runs on computer and responsible for replaying to web browser's request for file, is **Web server**. It is responsible for handling the situation when many different browsers connect to the same server from the server site. When we request a page on a website the browser makes a web connection using the http protocol. The server accepts the connection, send the content of the requested file, and then terminate it. The browser then formats the info that call from the server.

A **Web page** is made up of two parts: the head and the body. The head is the first part of a Web page. The head contains the title of the page and other parameters that the browser will use. The actual content of the page are in the body which includes the text and the tag.

URL contains 3 parts in the form of Method://Host/Path. Method can be any protocol like http, host can be any domain name and path can be direction of the resource within that host.

To view a webpage we have to identify DNS of the host then perform a series of requesting messages for obtaining and display that web document.

Hypertext Markup Language (HTML) is a famous language for creating Web page. It is not a programming language, it is a markup language. A markup language is a set of markup tags that is use to describe web pages. HTML allows us to embed formatting instructions in the file itself. The instructions are included with the text. In this way any browser can read the instructions and format the text according to the specific workstation. HTML lets us only ASCII characters for both the main text and formatting instruction. In this way, every computer can receive the whole document as an ASCII document.

HTML use some tags. eg:

big>: Makes the text usually one size bigger than what's around it.

: for changing the font.

: it is simply used to mark up a paragraph.

: Makes the text bold.
<a>: use for anchoring tag.

```
<i>: Makes text italic.
<s>: for strike.
: use for list index

    Ordered list.

ul>: Unordered list.
<br/><br/>big>: Makes the text usually one size bigger than what's around it.
<h1> to <h6>: define header 1 to header 6.
<br/>br>: inserting a single break.
<body>: defines a document body
<hr>: defines a horizontal rule
: to make table.
: to make table row.
: to make table column.
: table header.
<title>: for the tilte of the page.
<head>: use for heading.
<body>: use to write the body of the html.
<a href="https://www.neb.nage.com/">html>: main tag for creating web page.
<button>: designs a button used for performing some predefined operation.
: defines the body of the table.
<fieldset>: groups from controls into logical sections.
<legend>: specifies a caption that appears at the top of a fieldset.
<frame>: tells the browser which document to display.
<caption>: give the table a caption
```

These are some tags that we generally use in html.

Some example of web page that we create using HTML is written here.

Program 1:--

Writing option using bullet.

```
<html>
//for title of the page
<title>html page</title>
<body>
<font face="arial"
size="+4"
color="green"
align="right">
<b>University student informathion
```

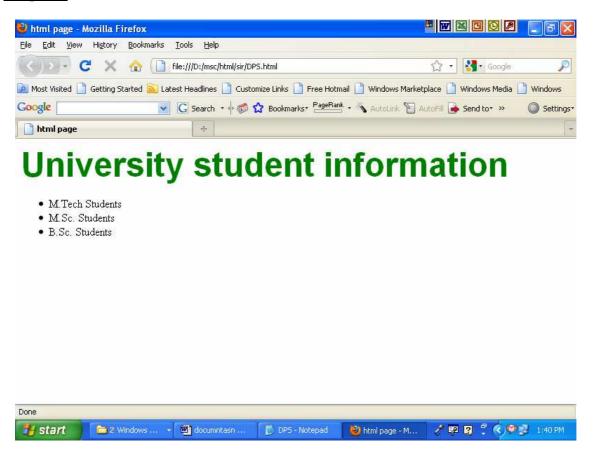
```
</b>
</font></br>
</font></br>

//for list option
M.Tech Students
M.Sc. Students
B.Sc. Students

</body>
</html>
```

Description:--

Name of the title of this page is "html page". The heading "University student information" is of size 4 and of green color. Under this heading there are three options M.Tech Students, M.Sc. Student and B.Sc. Students. These options are in a list order. It is designed by the tag .



Program 2:--

Designing a Testform

```
Code:
 <HTML>
 //for title of the page
 <Title>Test Home Page</Title>
 <HEAD><P ALIGN="CENTER" ><FONT FACE="Verdana" COLOR="GREEN"</p>
 SIZE="+4"><B>A Test page</B></FONT></P></HEAD><BR>
 <BODY>
 <!-- For Abbreviation and Acronym -->
            <ABBR TITLE="BARRACKPORE RASTRAGURU SUREBNDRANATH
 COLLEGE">B.R.S.N.C</ABBR>
            <ACROYM TITLE="FIRST IN FIRST OUT">FIFO</ACRONYM>
 <! -- For bullet purpose -->
            <TABLE BORDER="1" WIDTH="20%">
              <TR BGCOLOR="CREAM">
                  <UL>
                       <LI><B><A HREF="HOME.HTML">HOME</A></B>
                       <LI><B><A HREF="CONTACT.HTML">CONACT
 NUMBERS</A></B>
                       <LI><B><A HREF="INSTITUTION DETAIL">MORE
 DETAILS</A></B>
                       <LI><B><A HREF="COMMENTS.HTML">SUBMIT
 YOUR COMMENTS</A></B>
                       <LI><B><A HREF="INFO.HTML">INFORMATION
 CENTER</A></B>
                  </UL>
                  </br>
             </TR>
            </TABLE>
 <! -- HTML button section -->
            <TABLE BORDER="0" WIDTH="50%">
             <TR>
                  <TD WIDTH="30%" BGCOLOR="GREEN" ALIGN="CENTER">
                       <BUTTON NAME=submit>Entity</BUTTON>
                  </TD>
                  <TD WIDTH="30%" BGCOLOR="GREEN" ALIGN="CENTER">
```

```
<BUTTON NAME=submit>Decimal</BUTTON>
                </TD>
                <TD WIDTH="30%" BGCOLOR="GREEN" ALIGN="CENTER">
                      <BUTTON TYPE=button ID=toggler
ONCLICK="toggle()">H<strong>E</strong>X</BUTTON>
                </TD>
           </TR>
           </TABLE>
<!-- Table creation -->
           <TABLE BORDER="1" WIDTH="50%">
                 <COLGROUP>
                 <COLGROUP SPAN=3>
                 <COLGROUP SPAN=3>
                      <THEAD>
                       <TR>
                            <TH SCOPE=col BGCOLOR="CREAM"
ROWSPAN=2>Character</TH>
                            <TH SCOPE=col BGCOLOR="CREAM"
ROWSPAN=2>Entity</TH>
                            <TH SCOPE=col BGCOLOR="CREAM"
ROWSPAN=2>Decimal</TH>
                           <TH SCOPE=col BGCOLOR="CREAM"
ROWSPAN=2>Hex</TH>
                           <TH SCOPE=colgroup BGCOLOR="PINK"
COLSPAN=3>Rendering in Your Browser</TH>
                       </TR>
                       <TR>
                            <TH SCOPE=col
BGCOLOR="CREAM">Entity</TH>
                                 <TH SCOPE=col
BGCOLOR="CREAM">Decimal</TH>
                                      <TH SCOPE=col
BGCOLOR="CREAM">Hex</TH>
                       </TR>
                    </THEAD>
                      <TBODY>
                            <TR>
                                     <TD SCOPE=row>non-breaking
space</TD>
                                      <TD>&amp;nbsp;</TD>
                                      <TD>&amp;#160;</TD>
                                      <TD> </TD>
                                      <TD>&nbsp;</TD>
                                      <TD>&#160;</TD>
```

</TR>

</TBODY>

```
</TABLE>
<!-- Form, fieldset and LEDGEND -->
<FORM METHOD=post ACTION="/cgi-bin/order.cgi">
 <FIELDSET>
  <LEGEND > Contact Information < /LEGEND>
  <TABLE>
   <TR>
    <TD>
     <LABEL VALUE=name>Name:</LABEL>
    </TD>
    <TD>
     <INPUT TYPE=text NAME=name ID=name>
   </TR>
   <TR>
    <TD>
     <LABEL FOR=email>E-mail Address:</LABEL>
    </TD>
    < TD >
    <INPUT TYPE=text NAME=email ID=email>
    </TD>
   </TR>
   <TR>
    <LABEL FOR=addr>Mailing Address:</LABEL>
    </TD>
    <TEXTAREA NAME=address ID=addr ROWS=4 COLS=40></TEXTAREA>
    </TD>
```

```
<FIELDSET>
<LEGEND>Ordering Information</LEGEND>
<P>Please select the product(s) that you wish to order:</P>
<P>
```

</TR>
</TABLE>
</FIELDSET>

```
<LABEL>
    <INPUT TYPE=checkbox NAME=products VALUE="HTML 3.2 Reference">
    <A HREF="/reference/wilbur/">HTML 3.2 Reference</A>
   </LABEL>
   \langle BR \rangle
   <LABEL>
    <INPUT TYPE=checkbox NAME=products VALUE="HTML 4.0 Reference">
    <A HREF="/reference/html40/">HTML 4.0 Reference</A>
   </LABEL>
   \langle BR \rangle
   <LABEL>
    <INPUT TYPE=checkbox NAME=products VALUE="CSS Guide">
    <A HREF="/reference/css/">Cascading Style Sheets Guide</A>
   </LABEL>
  </P>
 </FIELDSET>
<FIELDSET>
  <LEGEND>Credit Card Information</LEGEND>
  <P>
   <LABEL>
<! -- radio button purpose -->
    <INPUT TYPE=radio NAME=card VALUE=visa> Visa
   </LABEL>
   <LABEL>
    <INPUT TYPE=radio NAME=card VALUE=mc> MasterCard
   </LABEL>
   \langle BR \rangle
   <LABEL>
    Number: <INPUT TYPE=text NAME=number>
   </LABEL>
      <LABEL>
    <FONT SIZE=-1 COLOR="RED">Please set unique value</FONT>
   </LABEL>
   \langle BR \rangle
   <LABEL>
    Expiry: <INPUT TYPE=text NAME=expiry>
   </LABEL>
    </P>
 </FIELDSET>
<! -- Paragraph creation -->
 <P>
  <INPUT TYPE=submit VALUE="Submit order">
```

```
<INPUT TYPE=reset VALUE="Clear order form">
 </P>
</FORM>
<P>The CENTER element defines a block whose contents are centered horizontally on
visual browsers. <INS CITE="http://www.w3.org/TR/REC-
html40/appendix/changes.html#h-A.1.2" DATETIME="1997-12-19T00:00:00-05:00">Note
that CENTER is deprecated in HTML 4.0.</INS></P>
<TABLE>
 <TR>
  \langle TD \rangle
   <LABEL ONFOCUS="TRUE" FOR=user>User</LABEL>
  \langle TD \rangle
   <SELECT NAME=user ID=user>
    <OPTION><-- Select user --></OPTION>
      <OPTION>Pintu</OPTION>
    <OPTION>Swarnali</OPTION>
    <OPTION>Avijit</OPTION>
    <OPTION>Arindam</OPTION>
    <OPTION>Koyel</OPTION>
   </SELECT>
  </TD>
 </TR>
 \langle TR \rangle
  <TD><LABEL FOR=passwd>Password&copy</LABEL></TD>
  <TD><INPUT TYPE=password NAME=password ID=passwd></TD>
 </TR>
</TABLE>
<P>
 <LABEL>
  <INPUT TYPE=checkbox NAME=save VALUE=yes>
  Save user name and password in a cookie
 </LABEL>
</P>
<P>
 <LABEL>
  Comments to post:
  <TEXTAREA NAME=comments ROWS=8 COLS=50></TEXTAREA>
 </LABEL>
</P>
```

<P>According to Dave Raggett, <I>"HTML 4.0 gives Web designers the ability to create dynamic visually exciting pages that are accessible to all</I></P>

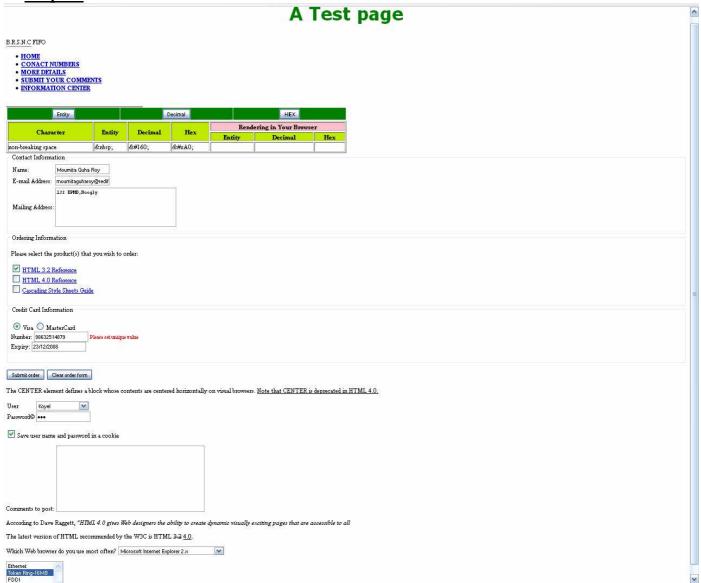
The latest version of HTML recommended by the W3C is HTML <DEL DATETIME="1997-12-19T00:00:00-05:00"><S>3.2 <INS DATETIME="1997-12-19T00:00:00-05:00">4.0</INS>.

```
<P>Which Web browser do you use most often?
<! -- DROPDOWNLIST WITH GROUP OPTION -->
 <SELECT NAME=browser>
  <OPTGROUP LABEL="Netscape Navigator">
   <OPTION LABEL="4.x or higher">Netscape Navigator 4.x or higher
   <OPTION LABEL="3.x">Netscape Navigator 3.x</OPTION>
   <OPTION LABEL="2.x">Netscape Navigator 2.x
   <OPTION LABEL="1.x">Netscape Navigator 1.x
  </OPTGROUP>
  <OPTGROUP LABEL="Microsoft Internet Explorer">
   <OPTION LABEL="4.x or higher">Microsoft Internet Explorer 4.x or
higher</OPTION>
   <OPTION LABEL="3.x">Microsoft Internet Explorer 3.x/OPTION>
   <OPTION LABEL="2.x">Microsoft Internet Explorer 2.x/OPTION>
   <OPTION LABEL="1.x">Microsoft Internet Explorer 1.x/OPTION>
  </OPTGROUP>
  <OPTGROUP LABEL="Opera"><OPTION LABEL="3.x or higher">Opera 3.x or
higher</OPTION>
   <OPTION LABEL="2.x">Opera 2.x</OPTION>
  </OPTGROUP>
  <OPTION>Other</OPTION>
 </SELECT>
</P>
<SELECT MULTIPLE NAME="network">
        <OPTION SELECTED VALUE="ethernet">Ethernet
         <OPTION VALUE="token16"> Token Ring-16MB
           <OPTION VALUE="token4"> FDDI
     <OPTION VALUE="localtalk"> LocalTalk
  </SELECT>
```

Description:--

Title of the page is Test Home Page. The heading "A Test page" is written in Verdana font of size 4 in green color. We make BARRACKPORE RASTRAGURU SUREBNDRANATH COLLEGE in its Abbreviation B.R.S.N.C. after this there is a table where there are some rows of options and there we use bullet by using li. To make the options link to a new page we use HREF. Ul is use for unordered list. Next we make another table with some rows and column. In the 1swt row we make three button for Entity, Decimal and hex. The name hex contain a 'E' highlighted. We make it so by using the tag strong. Next row contain five table header() for character, entity etc. another row contain another three table headers for entity, decimal etc. lastly the final row of the table that contains seven column. Then we make a fieldset using < fieldset> and < legent>. In the fieldset there is a table that contains a column in the row. Such we make several column in different rows for name, e-mail address and mailing address and corresponding text boxes for getting inputs in name, e-mail address and text area for mailing address. There is another fieldset for Ordering Information. Here we create three check boxes for three options and make those options link to the new page. The next fieldset is for Credit Card Information. Here we use two radio button for visa and MasterCard, two text box for number and expiry. Outside of this field set there are one submit button and a reset button. Next there is a table where are some rows and column for label and drop down list box .for password we use a label of password type. After the table there is check box for the option Save user name and password in a cookie that we write in a label. Another label is for the option Comments to post and a corresponding text area for the input. We write the information "HTML 4.0 gives Web designers the ability to create dynamic visually exciting pages that are accessible to all" in italic by using <i>. after these there is a drop down list, that contain some options and some sub option of that options. We make this by option group. Finally there is a list box that we create by <option>. Such we design the whole page.

Output:-



The above three programs are the example of web pages that we create by HTML. But it can not work as a real web pages as html is used to only design the web page and to perform any data entry or data retrieve from a user. In these web pages we must also perform the validity check of the entered data and to connect the page with the server. For this we need java script at the users' end. So we have to use java script programming for checking the validity of the data entered at the client or users' end.

JavaScript is the most popular scripting language on the internet, and works in all major browsers, such as Internet Explorer, Fire fox, Chrome, Opera, and Safari. JavaScript was

designed to add interactivity to HTML pages. It is usually embedded directly into HTML pages. JavaScript gives HTML designers a programming tool. Almost anyone can put small "snippets" of code into their HTML pages. It can put dynamic text into an HTML page. JavaScript can react to events, it can be set to execute when something happens, like when a page has finished loading or when a user clicks on an HTML element. It can be used also to validate data before it is submitted to a server. This saves the server from extra processing. JavaScript can be used to detect the visitor's browser, and depending on the browser load another page specifically designed for that browser.

Generally we write some functions for doing some operations; we connect those functions with HTML by java script(mainly by writing <script type="text/javascript">>). Now there is some example of HTML that we design using java script.

Program 3:-

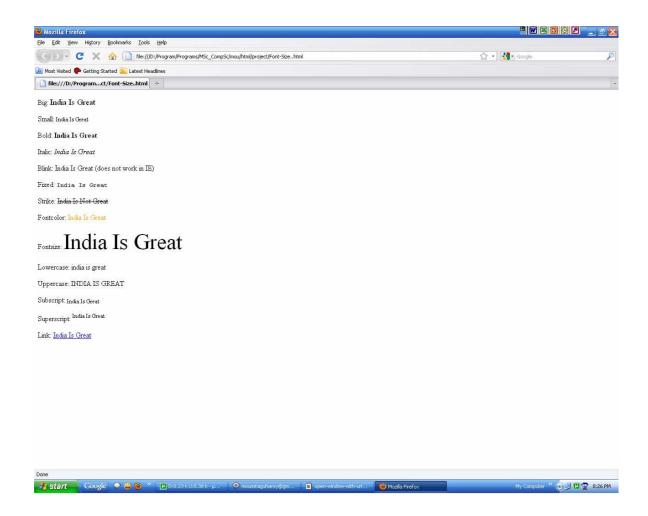
Program for different font

```
<html>
<body>
//for connecting java script
<script type="text/javascript">
var txt="India Is Great";
var txt1="India Is Not Great";
//for big font
document.write("Big: " + txt.big() + "");
//for small font
document.write("Small: " + txt.small() + "");
//for bold font
document.write("Bold: " + txt.bold() + "");
//for italic font
document.write("Italic: " + txt.italics() + "");
//for blinking the font
document.write("Blink: " + txt.blink() + " (does not work in IE)");
//for fixing font
document.write("Fixed: " + txt.fixed() + "");
//for striking on a word
document.write("Strike: " + txt1.strike() + "");
```

```
//for changing color
document.write("Fontcolor: " + txt.fontcolor("Orange") + "");
//for size of the font
document.write("Fontsize: " + txt.fontsize(16) + "");
//for lower case
document.write("Lowercase: " + txt.toLowerCase() + "");
//for upper case
document.write("Uppercase: " + txt.toUpperCase() + "");
//for subscription
document.write("Subscript: " + txt.sub() + "");
for supercripting
document.write("Superscript: " + txt.sup() + "");
//to make link to a new page
document.write("Link: " + txt.link("http://www.google.com") + "");
</script>
</body>
</html>
```

Description:--

In this program we write the sentences "India Is Great" in different way. For big font we use function big(). For small font we use function small(). For bold font we use function bold(). For italic font we use function italic(). For blinking the sentence we use function blink(). For fixed font we use function fixed(). To cut the line from the middle we use function strike(). For coloring the sentence we use function fontcolor () where we pass the color as the parameter. To control font size we use the function fontsize() where we pass the size of the font as the parameter. To make the sentence in lower case and upper case we use toLowerCase() and toUpperCase() respectively. For subscript and superscript the functions are sub() and sup() respectively. To make link we use link() here we pass the address of the link as the parameter.



Make a sentence in upper case.

```
<html>
<body>
//for connecting java script

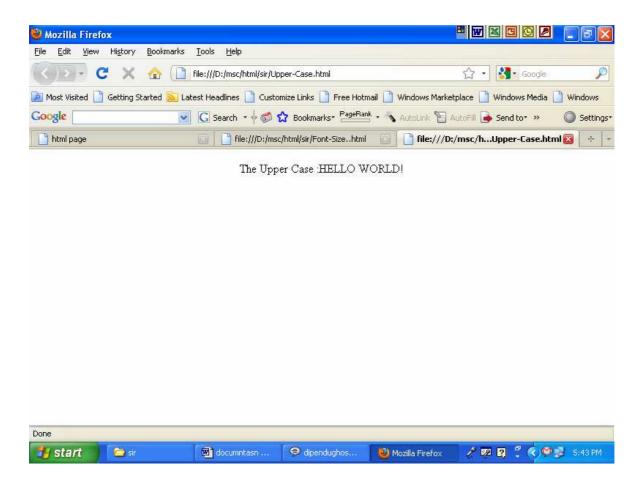
<script type="text/javascript">
    var str="Hello world!";
    document.write("<center>The Upper Case :" + str.toUpperCase() +
"</center>");</script>
```

```
</script>
</body>
</html>
```

Description:--

The program will change the sentence "Hello world!" into upper case. For doing so we use the function toUpperCase() that changes all letter written in lower case into upper case. We connect the function with the html page by java script.

Output:--



5.Program:--

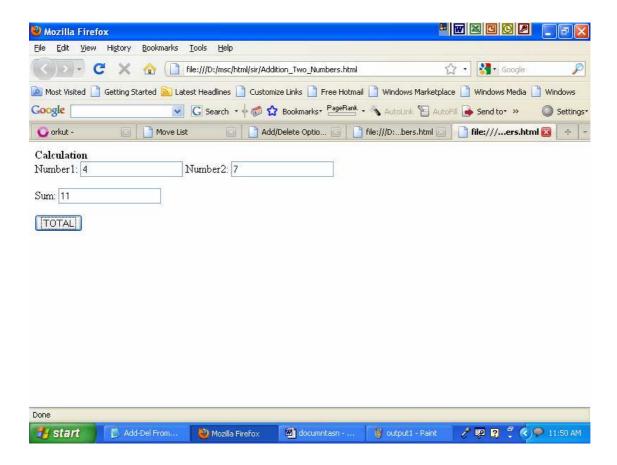
Write a program to Add two numbers.

```
<html>
    <align=center><b> Calculation </b></align>
//body of the html
<body bgcolor=White>
       <form>
              //text box for inputs
              Number1:
              <input type="text" id="aa1">
         Number2:
         <input type="text" id="aa2">
       </form>
     <form>
       //text box for display the output
         <input type="text" id="aa3">
     </form>
      <input type="button" onclick="calculate()" value="TOTAL">
   </body>
</html>
//for connecting java script
<script language="javascript">
//function for adding
function calculate()
{
 //debugger;
 var x1 = 0;
 var x2 = 0;
 var objText1 = document.getElementById("aa1");
 var objText2 = document.getElementById("aa2");
 var objText3 = document.getElementById("aa3");
 x1 = parseInt(objText1.value);
 x2 = parseInt(objText2.value);
 objText3.value = x1+x2;
</script>
```

Description of the program:--

Calculation is the heading which we want to display in the middle of the page. so we use the tag align to display the heading at the middle. now we enter to the body of the page using the tag "body". The back ground color of the page is white. We use the tag bgcolor to this. Form is use for declaration. In this page we need 2 text box for getting inputs and another text box for the output i.e. the sum of two numbers. Number1 and Number2 are the name of the text boxes for inputs respectively and Sum is the name of the output text box, these names will be display in front of the text boxes. aa1, aa2, aa3 are the id of the three text boxes. we use a button named total which will do the sum on the event onclick.i.e. When user click on the button total, the function calculate() will be execute.

This is the body of the html. Next there is the function body to calculate() where we declare three variables objText1, objText2 and objText3 which holds the values of the three text boxes respectively. Another two variables x1 and x2 holds the values of the two inputs converting in int type. Then we add the value of x1 and x2 and get the total value which will be displayed in total.



Program of Add/Delete Options from A list.

Code:

<html>

<head>

//title of the page

```
<title>Add/Delete Options From A list</title>
//for connecting java script
<script type="text/javascript">
function addOption(selectObject,optionText)
  if ( !recheck (selectObject, optionText) )
       {
              var optionObject = new Option(optionText)
           var optionRank = selectObject.options.length
              selectObject.options[optionRank]=optionObject
           document.testForm.optionText.value = "";
  else
     alert("Option is already present");
}
function deleteOption(selectObject,optionRank) {
  if (selectObject.options.length!=0) { selectObject.options[optionRank]=null }
//function for add
function testAdd() {
  var formObject = document.testForm
  if (formObject.optionText.value!="" ){
     addOption(formObject.fruitList,formObject.optionText.value)
  } else {
     alert("Fill form and click Add")
}
//function for delete
function testDelete() {
  var formObject = document.testForm
  if (formObject.fruitList.selectedIndex!=-1) {
     deleteOption(formObject.fruitList,formObject.fruitList.selectedIndex)
     alert("Select an option and click Delete")
  }
}
```

```
function recheck (selectObject, optionText){
 var sltbool = false;
 for (i=0; i<selectObject.options.length; i++){
  if (optionText == selectObject.options[i].text){
    sltbool = true;
    break
   }
 return sltbool;
</script>
</head>
//body of the html
<body>
<form name="testForm">
//creating list box
  <select name="fruitList" size="10">
    <option>Apple</option>
    <option>Kiwi</option>
    <option>Banana</option>
    <option>Peach</option>
    <option>Orange
  </select>
  <br/>
  Fill form and click Add :<br/>
  Option Text : <input type="text" name="optionText"/>
  <!-- Option Value : <input type="text" name="optionValue"/> -->
  <input type="button" value="Add" onclick="testAdd()"/><br/>
  Select an option and click Delete: <input type="button" value="Delete"
onclick="testDelete()"/>
</form>
</body>
</html>
```

description:--

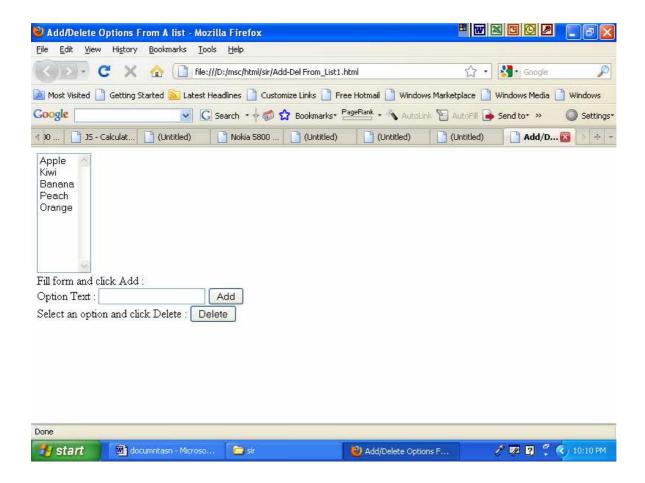
The title of the page is Add/Delete Options From A list. So we use the tag title. To design the page we use the tag body. We use a form named testForm. Then we make a list whose name is fruitList of size 10. then we make a text box named optionText and two button named Add and Delete respectively. Both the button work on the event click. When user click on the

button Add the function testAdd() will execute and when user click on the button Delete the function testDelete() will execute.

The next part is of the java script part where there is the function body. Recheck() is a function where we pass the parameter selectObject and optionText. We initialize a Boolean variable sltbool false. Then we make a for loop where i start from 0 to selectObject.options.length. and every time we check if optionText = = selectObject.option or not. i.e. the given input option is already present in the list or not. If its true then sltbool will be true. And finally we return the value of sltbool.

In the function testAdd() there is a variable named formObject that hold the testForm of the document. Then we check if the optionText is not empty i.e. some value is entered a function adoption() is called where we pass the parameter selectObject and optionText. Here we check if sltbool is true or false. If it is false then we declare a variable optionObject that holds the new option i.e. user give as an input in the option text. Another variable optionRank holds length of the options in the list box as we have to add the new option at the end of all the options. And finally we make the optionText empty.

In the function testAdd() there is a variable named formObject that hold the testForm of the document. Then we check if there is any selected option. If yes then a function deleteOption() is called where we pass the parameter formObject.fruitList and formObject.fruitList.selectedIndex. In this function we check if there is any selected option or not. If yes the selected option will be deleted from the list otherwise an alert will be shown for selecting an option first. This is the designing of the page.



Program for closing a window after a particular time.

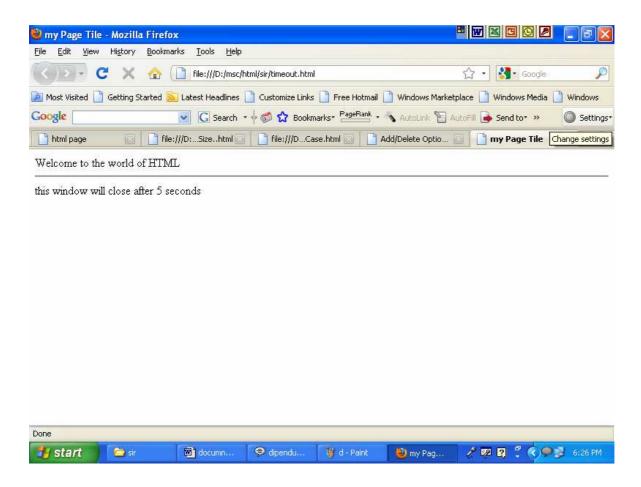
```
<html>
<head>
//title of the page
<title>my Page Tile</title>
Welcome to the world of HTML
<head>
//body of html
<Body>
<hr>
this window will close after 5 seconds
//for connecting java script
<script language=javascript>
i=window.setTimeout("window.close()",5000);</script>
```

</body>

Description:--

Title of the page is "my Page Tile". Next we write a line "Welcome to the world of HTML" and another line is "this window will close after 5 seconds". In the middle of these two line there is a line which we make by the tag hr. to close the window after a particular time we use the function setTimeout(), where we pass the time period after which the page will closed.

Output:--



8.program:--

Demo for moving an Item from one list box to another

```
</head>
      <body>
            >
                  <font face="Arial,Helvetica,sans-serif">
                         <br/> <b>Demo for moving an Item from one list box to another</b>
                  </font>
            >
                  <font face="Arial,Helvetica,sans-serif">Select Options to enable or
disable
                  </font>
            <form action="" name="MoveList">
                  <font face="Arial,Helvetica,sans-serif"</pre>
size="2">
                                           <b>List1</b>
                                     </font>
                                
                               <font face="Arial,Helvetica,sans-serif"</pre>
size="2">
                                            <b>List2</b>
                                     </font>
                               <select id = "box1" name="Enabled" size="11"</pre>
onClick="Set()" multiple style="width: 150px;">
                                           <option value="Option 1">Option
1</option>
                                            <option value="Option 2">Option
2</option>
                                            <option value="Option 3">Option
3</option>
                                            <option value="Option 4">Option
4</option>
```

```
<option value="Option 5">Option
5</option>
                                                                                                                                          <option value="Option 6">Option
6</option>
                                                                                                                      </select>
                                                                                                  <input type="button" disabled name="Disable"
value="    Add >> " style="width: 100px;"
onClick="MoveOption(this.form.Enabled, this.form.Disabled)">
                                                                                                                      <br>
                                                                                                                      <br>
                                                                                                                      <input type="button" disabled name="Enable"</pre>
value=" << Remove &nbsp;&nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u00e4nbsp;\u0
onClick="MoveOption(this.form.Disabled, this.form.Enabled)">
                                                                                                                      <br>
                                                                                                  <select name="Disabled" size="11"</pre>
onClick="Set1()" multiple style="width: 150px;">
                                                                                                                                          <option value="Option 7">Option
7</option>
                                                                                                                                          <option value="Option 8">Option
8</option>
                                                                                                                      </select>
                                                                                                  <
                                                                               </form>
                    </body>
</html>
<SCRIPT LANGUAGE="JavaScript" TYPE="text/javascript">
                                       function MoveOption(objSourceElement, objTargetElement)
                                                           var aryTempSourceOptions = new Array();
                                                                                                              //looping through source element to find selected
                                                           var x = 0;
options
                                                                              for (var i = 0; i < objSourceElement.length; <math>i++)
                                                                               {
                                                                                                 if (objSourceElement.options[i].selected)
                                                                                                                      //need to move this option to target element
                                                                                                                      var intTargetLen = objTargetElement.length++;
```

```
objSourceElement.options[i].text;
                                           objTargetElement.options[intTargetLen].value
= objSourceElement.options[i].value;
                                    //else
                                    //{
                                           //storing options that stay to recreate select
element
                                           //var objTempValues = new Object();
                                           //objTempValues.text =
objSourceElement.options[i].text;
                                           //objTempValues.value =
objSourceElement.options[i].value;
                                           //aryTempSourceOptions[x] = objTempValues;
                                           //x++:
                                    //}
                             }
                                           //resetting length of source
                                           objSourceElement.length =
aryTempSourceOptions.length;
                                           //looping through temp array to recreate source
select element
                                           for (var i = 0; i <
aryTempSourceOptions.length; i++)
       objSourceElement.options[i].text = aryTempSourceOptions[i].text;
       objSourceElement.options[i].value = aryTempSourceOptions[i].value;
       objSourceElement.options[i].selected = false;
              }
              // Elable and disable of add-remove button
              function Set()
                     document.MoveList.Disable.disabled = false;
              function Set1()
                     document.MoveList.Enable.disabled = false;
```

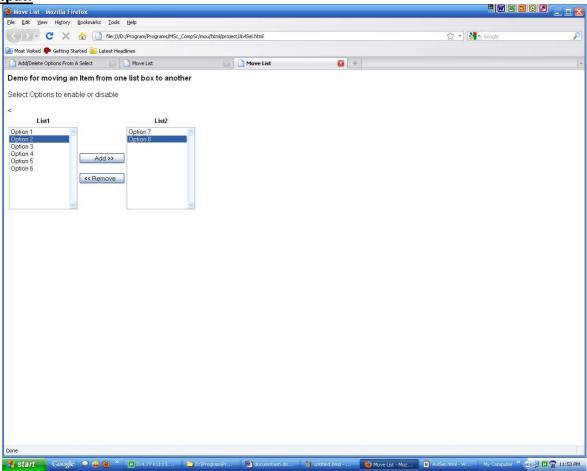
objTargetElement.options[intTargetLen].text =

</SCRIPT>

Description:--

The title of the list is "Move List". And the heading is "Demo for moving an Item from one list box to another". Then we make a table by the tag table and a row of that table by using the tag tr. We make two column List1 and List2 by using tag td.

Output:



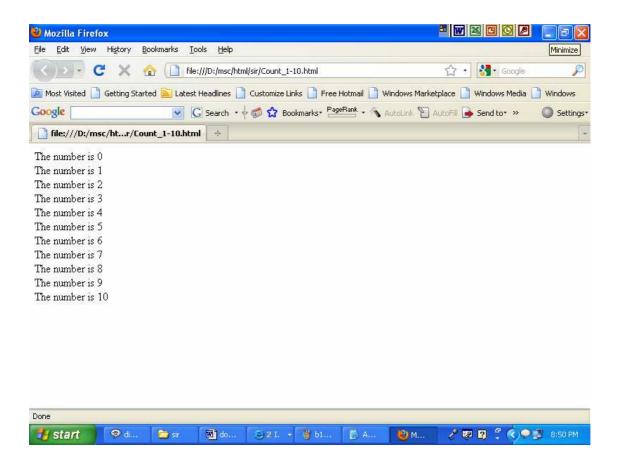
Program for counting 1 to 10.

Code:

```
<html>
//body part
<body>
//for connecting java script
<script type="text/javascript">
var i=0;
while (i<=10)
{
document.write("The number is " + i);
document.write("<br/>");
i=i+1;
}
</script>
</body>
</html>
```

Description:--

Here i is variable that initialize with 0 and we increase it by 1 upto 10 and display the number



```
program using for loop.
<html>
```

```
<head>
//title of the page
<title>my Page Tile</title>
Welcome to the world of HTML
<head>
//body part
<Body>
<hr>
//for connecting java script
<script language="javascript">
for(i=0;i<9;i++)
document.write("<font size="+i+">BRSNC</font><br/>br>");
</script>
```

</body>

Description:-

The title of the page is my Page Tile. And there is a heading "Welcome to the world of HTML". We use the tag hr to draw underline after the heading. Then we make a loop where i start from 0 to 9. And display BRSNC in the increasing order of font size.



Program name game.

Code:

```
<html>
<head>
//title of the page
<title>Name Game</title>
</head>
//body part
<body>
<h1 align="center"><font color="red" size="+4"><u>Name Game</u></font></h1>
//for connecting java script
<script language="javascript">
//ask user for name
       var userFirstName;
       var usrLastName;
       var numberLetters:
       var greeting;
       userFirstName=prompt("What is your first name?","");
       alert("This is a nice name, " + userFirstName);
       alert("I think I'll shout it: " + userFirstName.toUpperCase());
       usrLastName = prompt("So What is your last name, " + userFirstName + "?","");
       alert("Oh... " + userFirstName + " " + usrLastName + ".");
       alert("Sometimes called " + usrLastName + ", " + userFirstName );
       numberLetters=userFirstName.length + usrLastName.length;
       alert("Did you know there are " + numberLetters + " letters in your name?");
</script>
</body>
```

Description:--

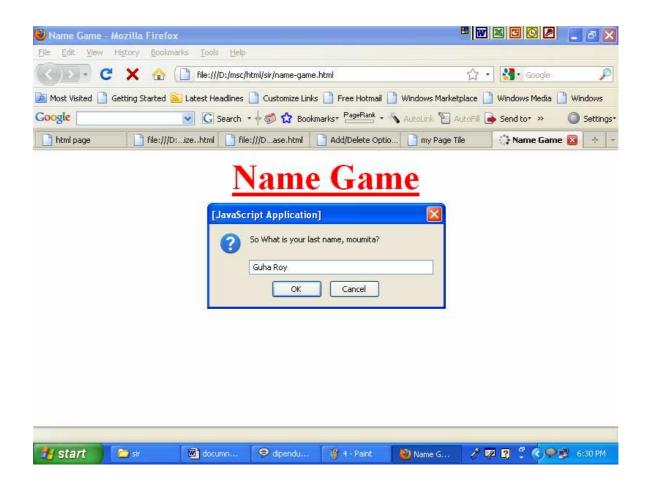
Heading of the program "Name Game" is written in red color with size 4. there are four variables userFirstName, usrLastName, numberLetters and greeting. When it get the first name it show a

message that it's a nice name. and it will convert it in upper case by toUpperCase(). Next it show another message where it want the last name and concatenate with the first name. then it displays another message where it shows the lastname first and then first name. it also done by concatenate the last name and then first name. then it count the number of characters in the total name by adding the length of first and last name and finally display this.



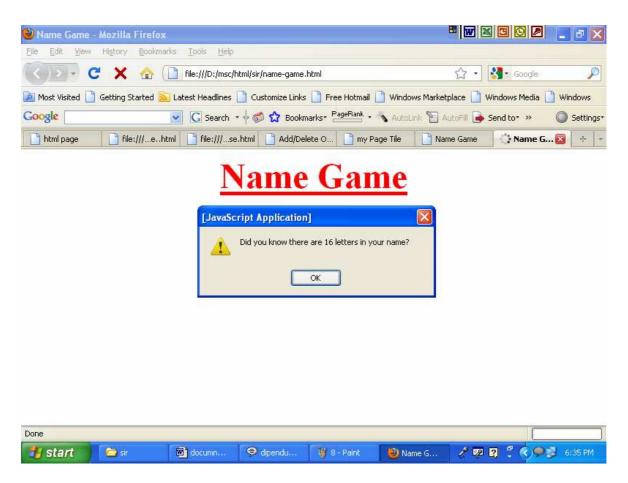












12.program:--

Program for calculating average of 4 numbers.

Code:

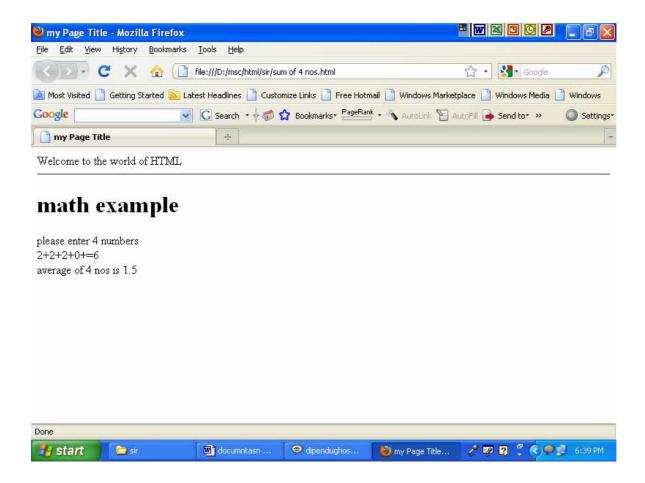
```
<html>
<head>
<title>my Page Tile</title>
Welcome to the world of HTML
<head>
//body of the html
<Body>
<hr>
<h1>math example</h1>
please enter 4 numbers<br/>
<script language="javascript">
```

```
var sum=0;
var num=0;

for(i=1;i<=4;i++)
{
         num=prompt("Enter "+i+" no","0");
         document.write(num+"+")
         sum =sum +parseInt(num);
}
document.write("="+sum);
average=sum/4;
document.write("<br>average of 4 nos is "+average);
average=math.round(average);
document.write("<br>Rounded average of 4 nos is "+average);
</script>
</body>
<html>
```

The title of the page is "my Page Title". There is a heading "Welcome to the world of HTML". Then there is another line for entering inputs. We take four numbers by using the for loop where the variable i starts from 0 to 3. and do the sum of this four numbers in integer. Then it calculate the average of the numbers by dividing the sum by 4 and show the rejult.

Output:--



13.program:--

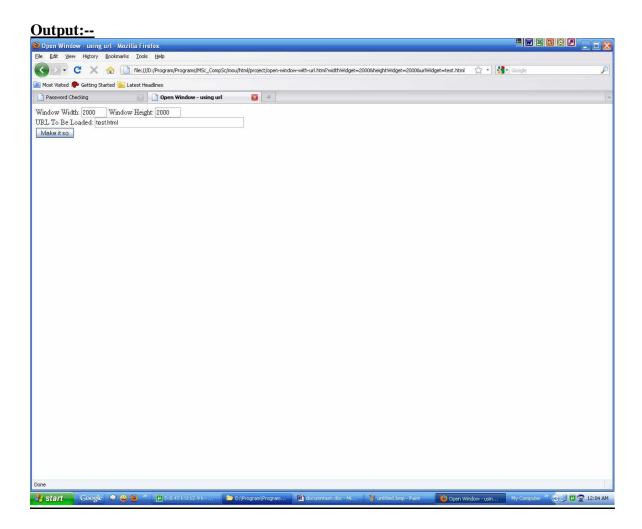
Program for Opening Window - using URL.

Code:

```
// create the command. specifying the url in the command seems to be
                    // a problem, so the window is created empty, then loaded
                    var command = "window.open(", 'noname',";
                           command
'toolbar=yes,location=yes,directories=yes,status=yes,";
                           command
                                                                                  +=
"menubar=yes,scrollbars=yes,resizable=no,width=" + width;
                           command += ",height=" + height + "')";
                    // create the window
                    var bed = eval(command);
                    // do it twice for brain-damaged platforms
                    bed = eval(command);
                    // load it
                    bed.location.href = url;
                    // we're not really submitting a form, so return false
                    return false;
  }
//-->
    </SCRIPT>
  </HEAD>
  <BODY>
    <FORM ONSUBMIT="OpenWin(this)">
       Window Width: <INPUT TYPE=TEXT SIZE=5 NAME="widthWidget">
       Window Height: <INPUT TYPE=TEXT SIZE=5 NAME="heightWidget">
       \langle BR \rangle
       URL To Be Loaded: <INPUT TYPE=TEXT SIZE=50 NAME="urlWidget">
       <INPUT TYPE=SUBMIT VALUE="Make it so">
    </FORM>
  </BODY>
</HTML>
```

There are two text boxes, one for Window Width another for Window Height. Another text box is for URL To Be Loaded. There is another submit button named Make it so. The function OpenWin() is called on submit button. It open a new page written in the URL box. The variables url is for getting the value if url text box, width is for getting the value of width and height get the height. It then open a new page where we select the presence of toolbar, location,

directories ,status, menubar, scrollbars. It is resizable or not and the width and the height of the page will be as the choice of the user. Then it evaluate the selected options. Finally it make the url option, new page by href.



14.program:--

Program for Form validation.

Code:

```
<HTML>
          <HEAD>
               <TITLE>Computer Order Form</TITLE>
                   //for connecting java script
                        <SCRIPT LANGUAGE="JavaScript">
         //function for checking name field
         function nameOK()
          if (document.forms[0].FirstName.value.length == 0)
             alert("I need a first name, please");
             return false;
          if (document.forms[0].LastName.value.length == 0)
             alert("I need a last name, please");
             return false;
          return true;
          }
       //function for checking a input is numeric or not
       function isDigit(c)
          var test = "" + c;
          if (test == "0" \parallel test == "1" \parallel test == "2" \parallel test == "3" \parallel test == "4"
          || test == "5" || test == "6" || test == "7" || test == "8" || test == "9")
            return true;
  return false;
//function for checking valid age
function ageOK()
  if (document.forms[0].Age.value.length == 0)
     alert("Sorry, you have failed to enter an age");
     return false;
  var c = document.forms[0].Age.value.substring(0, 1);
  if(isDigit(c) == false)
```

```
alert("Sorry, you have failed to enter an appropriate age");
     return false;
  var result = parseInt(document.forms[0].Age.value, 10);
  if (result < 18)
     alert("Sorry, you have failed to enter an appropriate age");
     return false;
  return true;
//function for checking if all the entered inputs are digit or not
function is AllDigits(s)
  var test = "" + s;
  for (var k = 0; k < \text{test.length}; k++)
     var c = test.substring(k, k+1);
     if (isDigit(c) == false)
       return false;
     }
  return true;
//check validation of address
function addressOK()
  if (document.forms[0].StreetAddress.value.length == 0)
     alert("We need a street address");
     return false;
  if (document.forms[0].City.value.length == 0)
     alert("We need a city");
     return false;
  if (document.forms[0].State.value.length != 2)
     alert("We need a 2-letter state abbreviation");
     return false;
     }
```

```
return true;
//check valid zip code
function zipOK()
  var zip = document.forms[0].ZIPCode.value;
  if (zip.length == 5)
     var result = isAllDigits(zip);
     if (result == false)
       alert("Invalid character in zip code");
     return result;
  else if (zip.length == 10)
     var result = isAllDigits(zip.substring(0,5));
     if (result == true)
       if (zip.substring(5,6) != "-")
          result = false;
       else
          result = isAllDigits(zip.substring(6,10));
     if (result == false)
       alert("Invalid character in zip code");
     return result;
  else
     alert("Invalid zip code; please re-enter it");
     return false;
     }
  }
//check valid phone no.
function phoneOK()
  {
```

```
if (document.forms[0].Phone1.value.length != 3)
      alert("We need a phone number, including area code");
      return false;
   if (document.forms[0].Phone2.value.length != 3)
      alert("We need a phone number, including area code");
      return false;
   if (document.forms[0].Phone3.value.length != 4)
      alert("We need a phone number, including area code");
      return false;
   if (isAllDigits(document.forms[0].Phone1.value) == false)
      alert("Bad character in phone number");
      return false;
   if (isAllDigits(document.forms[0].Phone2.value) == false)
      alert("Bad character in phone number");
      return false;
   if (isAllDigits(document.forms[0].Phone3.value) == false)
      alert("Bad character in phone number");
      return false:
   return true;
 function doubleForMod10(c)
var d = 0 + c;
if (d == 0) return 0;
if (d == 1) return 2;
if (d == 2) return 4;
if (d == 3) return 6;
if (d == 4) return 8;
if (d == 5) return 1; // 5+5 = 10; 1+0 = 1
if (d == 6) return 3; // 6+6 = 12; 1+2=3
if (d == 7) return 5; // 7 + 7 = 14; 1 + 4 = 5
if (d == 8) return 7; // 8+8 = 16; 1+6 = 7
return 9; // (digit must be 9) 9+9 = 18; 1+8 = 9
```

```
}
function sumForMod10(s)
  var v = parseInt(s, 10); // get the value
  var result = doubleForMod10(Math.floor(v / 1000));
  v = v \% 1000;
  result += Math.floor(v / 100);
  v = v \% 100;
  result += doubleForMod10(Math.floor(v / 10));
  v = v \% 10;
  result += v;
  return result;
  }
//function to check valid credit card number
function validateCreditCardNumber()
  if (document.forms[0].CreditCardNumber1.value.length != 4)
     alert("The credit card number is not completely filled out");
     return false;
  if (document.forms[0].CreditCardNumber2.value.length != 4)
     alert("The credit card number is not completely filled out");
     return false;
  if (document.forms[0].CreditCardNumber3.value.length != 4)
     alert("The credit card number is not completely filled out");
     return false;
  if (document.forms[0].CreditCardNumber4.value.length != 4)
     alert("The credit card number is not completely filled out");
     return false;
  if (isAllDigits(document.forms[0].CreditCardNumber1.value) == false)
     alert("The credit card number contains invalid characters");
     return false;
  if (isAllDigits(document.forms[0].CreditCardNumber2.value) == false)
     alert("The credit card number contains invalid characters");
```

```
return false;
    if (isAllDigits(document.forms[0].CreditCardNumber3.value) == false)
       alert("The credit card number contains invalid characters");
       return false;
    if (isAllDigits(document.forms[0].CreditCardNumber4.value) == false)
       alert("The credit card number contains invalid characters");
       return false;
    if (document.forms[0].CreditCardType[1].checked == true) // Visa
       if (document.forms[0].CreditCardNumber1.value.substring(0,1)!= "4")
         alert("The credit card number is not valid; please re-enter it");
         return false;
       }
    else // must be MasterCard
       var prefix =
       parseInt(document.forms[0].CreditCardNumber1.value.substring(0,2));
       if (prefix < 51 \parallel 55 < prefix)
         alert("The credit card number is not valid; please re-enter it");
         return false;
       }
    var sum = sumForMod10(document.forms[0].CreditCardNumber1.value);
    sum += sumForMod10(document.forms[0].CreditCardNumber2.value);
    sum += sumForMod10(document.forms[0].CreditCardNumber3.value);
    sum += sumForMod10(document.forms[0].CreditCardNumber4.value);
    if (sum \% 10 != 0)
       alert("The credit card number is not valid; please re-enter it");
       return false:
    return true;
  //function to check valid date
  function dateOK()
    if (document.forms[0].ExpirationMonth.value.length == 0)
```

```
alert("You must fill in the expiration date");
  return false;
if (isDigit(document.forms[0].ExpirationMonth.value.substring(0,1)) ==
false)
  alert("Expiration date should be numeric");
  return false;
var eMonth = parseInt(document.forms[0].ExpirationMonth.value, 10);
if (eMonth < 1 \parallel 12 < eMonth)
  alert("Expiration date is out of range");
if (document.forms[0].ExpirationYear.value.length == 0)
  alert("You must fill in the expiration date");
  return false;
if (isDigit(document.forms[0].ExpirationYear.value.substring(0,1)) == false)
  alert("Expiration date should be numeric");
  return false;
var eYear = parseInt(document.forms[0].ExpirationYear.value, 10);
if (eYear < 50)
  eYear += 2000;
else
  eYear += 1900;
var today = new Date(); // get today's date
var this Year = 1900 + today.get Year();
var thisMonth = 1 + today.getMonth();
if (eYear < this Year)
  alert("Your credit card seems to have expired");
  return false;
if (this Year < e Year)
  return true;
```

```
if (eMonth < thisMonth)</pre>
     alert("Your credit card seems to have expired");
     return false;
  if (thisMonth < eMonth)
     return true;
  alert("Your credit card has expired or is about to expire");
  return false;
//function for checking valid merchandise
function merchandiseOK()
  var tally = 0;
  var optionCount = document.forms[0].Merchandise.options.length;
  for (var k = 0; k < optionCount; k++)
     if (document.forms[0].Merchandise.options[ k ].selected == true)
       tally += parseInt(document.forms[0].Merchandise.options[ k ].value);
       if (tally < 5000)
          alert("Sorry, we cannot handle a transaction in excess of
          $5,000.00");
          return false;
  if (tally == 0)
     alert("Sorry, you don't seem to have ordered anything");
     return false;
  return true;
function checkForm()
  if (nameOK() == false)
     return;
  if (ageOK() == false)
```

```
return;
  if (addressOK() == false)
    return;
  if(zipOK() == false)
    return;
  if (phoneOK() == false)
    return;
  if (validateCreditCardNumber() == false)
    return;
  if (dateOK() == false)
    return;
  if (merchandiseOK() == false)
    return;
  document.forms[0].submit();
// end of code -->
    </SCRIPT>
  </HEAD>
//body part
  <BODY>
    <FORM ACTION="mailto:mailhost@computoRama.usa.com" METHOD=POST>
      <TABLE BORDER="2" CELLPADDING="1">
        <TR>
          <TD ROWSPAN="2">Who Are You?</TD>
          <TD><INPUT TYPE="text" NAME="FirstName" SIZE=20></TD>
          <TD><INPUT TYPE="text" NAME="MiddleInitial" SIZE=1></TD>
          <TD><INPUT TYPE="text" NAME="LastName" SIZE=20></TD>
          <TD><INPUT TYPE="text" NAME="Age" SIZE=3></TD>
        </TR>
        <TR>
          <TD><FONT SIZE="-2">First Name</FONT></TD>
          <TD><FONT SIZE="-2">MI</FONT></TD>
```

```
<TD><FONT SIZE="-2">Last Name></TD>
  <TD><FONT SIZE="-2">Age</TD>
</TR>
<TR>
  <TD ROWSPAN="3">How Do We Contact You?</TD>
  <TD COLSPAN="4" VALIGN="TOP">Street Address: <TEXTAREA
  name="StreetAddress" rows=2 cols=30></TEXTAREA></TD>
</TR>
<TR>
  <TD COLSPAN="2">City: <INPUT TYPE="text" NAME="City"
  SIZE=20></TD>
  <TD COLSPAN="2">State: <INPUT TYPE="text" NAME="State"
  SIZE=2></TD>
</TR>
<TR>
  <TD COLSPAN="2">ZIP Code: <INPUT TYPE="text" NAME="ZIPCode"
  SIZE=10></TD>
  <TD COLSPAN="2">Daytime Phone
    (<INPUT TYPE="text" NAME="Phone1" SIZE=3>)
   <INPUT TYPE="text" NAME="Phone2" SIZE=3>-
    <INPUT TYPE="text" NAME="Phone3" SIZE=4></TD>
</TR>
<TR>
  <TD>Credit Card
    <INPUT TYPE="radio" NAME="CreditCardType" VALUE="Visa"</p>
   CHECKED>Visa
    <INPUT TYPE="radio" NAME="CreditCardType"</pre>
    VALUE="MasterCard">M/C</TD>
  <TD COLSPAN="2" ALIGN="CENTER">
    <INPUT TYPE="text" NAME="CreditCardNumber1" SIZE=4>
    <INPUT TYPE="text" NAME="CreditCardNumber2" SIZE=4>
    <INPUT TYPE="text" NAME="CreditCardNumber3" SIZE=4>
    <INPUT TYPE="text" NAME="CreditCardNumber4" SIZE=4></TD>
  <TD COLSPAN="2">Expiration Date:
   <INPUT TYPE="text" NAME="ExpirationMonth" SIZE=2>/
    <INPUT TYPE="text" NAME="ExpirationYear" SIZE=2></TD>
</TR>
<TR>
  <TD>Merchandise</TD>
  <TD COLSPAN=4><SELECT MULTIPLE NAME="Merchandise" SIZE=1>
    <OPTION SELECTED VALUE="2000"> HAL-470 < OPTION</p>
    VALUE="3000"> Banana9000
    <OPTION VALUE="800"> High Res Monitor <OPTION VALUE="50">
    Low Res Monitor
    <OPTION VALUE="250"> Deluxe Keyboard <OPTION VALUE="40">
    Regular Keyboard
```

```
<OPTION VALUE="2000"> Laser Printer < OPTION VALUE="600">
           Inkjet Printer < OPTION VALUE="200"> Dot Matrix Printer
           <OPTION VALUE="100"> Mouse <OPTION VALUE="125"> Trackball
           <OPTION VALUE="500"> Scanner
           </SELECT></TD>
       </TR>
       <TR>
         <TD ALIGN=CENTER COLSPAN="5">
           <H1>Thank You For Your Order!</H1>
         </TD>
       </TR>
     </TABLE>
     <CENTER>
       <INPUT TYPE="button" VALUE="Ship It!" onClick="checkForm()">
       <INPUT TYPE="reset" VALUE="Clear Entries">
     </CENTER>
   </FORM>
 </BODY>
</HTML>
```

Hare we make a table of border 2 and create several rows. There is some column in the first row for first Name, Middle Initial, Last Name and Age. Next another row for some column street address and a text area for getting the input. The next row contain two column for city and state. Such we create several rows and column with text boxes for zip code, ph number, Expiration Month, Expiration year for credit card radio button for credit card options, drop down list box for Merchandise options etc. there are two buttons one for checking the entries and another reset type button that clear the entries. The onclick events of the 1st button execute the function checkForm().

In checkForm() we use some other function to check all the options of the form are correct or not. 1st it call nameOK() where it checks if the candidate give his/her 1st name or last name. if not it shows a message for filling up those entries. The next function is ageOK() where it check if the input box is empty or not. If not it then check if all the digits given in the age text box is between 0 to 9 or not by using the function isDigit() it also check if the age of the candidate is less than 18 or not, below 18, it does not allow the candidate to proceed. Next is addressOK() that check if the address related boxes are empty or not and also check if the input box of state is filled up with abbreviation code of minimum 2 letters. The zipOK() function check validity of zip code. The zip code may be 5 digit or 10 digit. When it is of 5 digits, it checks if the input is in 0 to 9 or not. If not it show a mesage for invalid code. When the code is of 10 digits it check if the 1st 5 digits is in 0 to 9 or not, then it check if there is any '-' in between 5th and 6th digit. If its true then it check if 6th to 10th digit is numerical or not. In all other cases the given code is invalid. Next is phoneOK() that check if the 1st two input boxes of ph number are filled up with 3 characters and the last box is with 4 characters, it also check the given inputs are between 0 to 9 or not. Next

is validateCreditCardNumber() that check if the four input box is filled up with 4 characters and they are between 0 to 9 or not. Then it check selection of candidate is visa or master card. If visa is selected it check if the 0th and 1st digits are 4 or not. If not it's invalid. If master card is selected then it check if 1st 3 digits are less than 51or greater than 55 or not. If so then its a invalid entry. Then we make thr entered input is in one digit, if the single digit mod 10 is not equal to zero then the entry is invalid. The ondateOK() check if the input boxes are blank or not and the given date and month is valid or not. We get the input of the year and if it is less than 50 we add the input with 2000 otherwise add with 1900. we get the current date, month and year by the functions Date(),getYear() and getMonth(). If the entered date, month, year are less than the current date, month, year then the credit card seems to have expired. The last is merchandiseOK(). It checks if there is any selected option and if yes it get the cost of it. Then it checks if the cost is less than 5000 it will be a error.

This is the form validation that we design by java script.

Output:--

🔁 Computer Order Form - Mic	rosoft Internet Explo	rer			
File Edit View Favorites Too	ls Help	almo-i		10-26 - 34 (10 (1)) - 32 - 32	1
Back →	Search 5	🏷 Favorites 🛭 🥝) 🗟 · 🎍 🔁 · 📙	. 38	
Address D:\msc\html\sir\Form-Vali	dation.html			~	Go Links »
C. w					<u></u>
Who Are You?	First Name	МІ	Last Name>	Age	
How Do We Contact You?	Street Address:				
	City:		State:		
	ZIP Code:		Daytime Phone (
Credit Card • Visa • M/C			Expiration Date:/		
Merchandise	HAL-470	=			
Th	ank You l	For Yo	ur Order!		
	9	Ship Itl Clea	r Entries		
					9
Done Done		A Charles and A	fileways we seems to	int	Application of
start documntasr	- Microso 🥊 🤛 dipei	ndughosh@gmail	Computer Order For		📢 💖 8:13 PM

15.Progranm:--

Program to design a calculator.

```
Code:
<html>
<head>
<title>JS - Calculator</title>
 //for connecting java script
  <script language="Javascript">
<!--
/* Variablen definieren */
var plussign = ' + ';
var minussign = ' - ';
var multiplysign = ' * ';
var dividesign = ' / ';
var decimalsign = ' . ';
var negativesign = ' -';
var leftbracket = ' (';
var rightbracket = ') ';
var rad = 3.141592654 / 180;
var base_10 = Math.LN10;
var base_2 = Math.LN10;
/* Rechenfunktionen */
function calculate(arg) {
//alert(arg.expr.value)
  arg.expr.value = eval(arg.expr.value)
function enter(arg, string) {
  arg.expr.value += string
function clear_display(arg) {
  arg.expr.value = ' '
function calc_sqrt(form) {
  form.expr.value = (Math.sqrt(form.expr.value))
function calc_sqr(form) {
 form.expr.value = ((form.expr.value * 1) * (form.expr.value * 1))
}
```

```
function sin_form(form) {
 form.expr.value = (Math.sin (form.expr.value * rad))
function cos_form(form) {
 form.expr.value = (Math.cos (form.expr.value * rad))
function tan_form(form) {
 form.expr.value = (Math.tan(form.expr.value * rad))
function inverse(form) {
 form.expr.value = (1 / (form.expr.value))
function base10_log(form) {
 form.expr.value = (Math.log(form.expr.value) / base_10)
function base2_log(form) {
 form.expr.value = (Math.log(form.expr.value) / base_2)
//-->
</script>
</head>
<body>
<big><big>Easy Calculations</big></big>
<form>
<!-- Rechner Beginn -->
<input type="text" name="expr" size="35"
   action="calculate(this.form)">
 <input type="button" value=" sin " Onclick="sin_form(this.form)">
           width="20%"><input
                                  type="button"
                                                    value="
                                                                 cos
 OnClick="cos_form(this.form)">
  <input type="button" value=" tan " Onclick="tan_form(this.form)">
                                         type="button"
              width="20%"><input
                                                               value="log10e"
 onClick="base10_log(this.form)">
```

```
width="20%"><input
                              type="button"
                                              value="
                                                         log2e
 <td
 OnClick="base2_log(this.form)">
 width="20%"><input
                               type="button"
                                               value="
                                                          Sqrt
 <td
 Onclick="calc_sqrt(this.form)">
        width="20%"><input
                            type="button"
                                          value="
                                                        Sar
 OnClick="calc_sqr(this.form)">
 <input type="button" value=" ( "OnClick="enter(this.form,
leftbracket)">
 <input type="button" value=" ) "OnClick="enter(this.form,
rightbracket)">
       width="20%"><input
                         type="button"
                                      value="
                                                     1
                                                            X
 <td
 OnClick="inverse(this.form)">
 <input type="button" value="
                                                " onClick="enter(this.form,
                                          7
 7)">
 <input type="button" value="
                                          8
                                                " onClick="enter(this.form,
 8)">
 <input type="button" value="
                                          9
                                                " onClick="enter(this.form,
 9)">
 <input type="button" value="
                                                         \mathbf{C}
 onClick="clear display(this.form)">
 <input type="button" value="
                                               " onClick="enter(this.form,
 4)">
 <input type="button" value="
                                          5
                                                " onClick="enter(this.form,
 5)">
 <input type="button" value="
                                          6
                                                " onClick="enter(this.form,
 6)">
 <input type="button" value=" *
                                         " onClick="enter(this.form,
multiplysign)"> 
  <input type="button" value=" / " onClick="enter(this.form,
dividesign)">
<input type="button" value="
                                        " onclick="enter(this.form, 1)">
 <input type="button" value="
                                        " onclick="enter(this.form, 2)">
                                         "onclick="enter(this.form, 3)">
 <input type="button" value="
                                      + "onClick="enter(this.form,
 <input type="button" value="
plussign)"> 
  <input type="button" value=" - "onClick="enter(this.form,
minussign)">
```

```
<input type="button" value=" 0
                                            " onClick="enter(this.form,
 <input type="button" value=" . " onClick="enter(this.form,
decimalsign)">
 <input type="button" value=" neg " onClick="enter(this.form,
negativesign)">
 <input type="button" value="
 onClick="calculate(this.form)">
<!-- Rechner Ende -->
</form>
</body>
</html>
```

Heading of the page is Easy Calculations. To design the calculator we use several buttons for the keys. And for each button there is a onclick event that execute corresponding function of that button. And a text box expr for displaying the result. Calculate() is called here.

In function calculate() the calculation given by user is done. The value and the operator given in the text box expr is evaluate here.

Next is enter() that is called by clicking on the number button. By this function the display text box display the corresponding string and get value of the string.

clear_display() clear the display box. The button named C do this. In the function we make the value of the expr blank.

In calc_sqrt() the squire root of the given number is calculated by the function (Math.sqrt(form.expr.value)).

Next is calc_sqr that calculate the squire of the given number by multiplying the value given in the text box expr.

Another function is sin form() that calculate the sin of the given number.

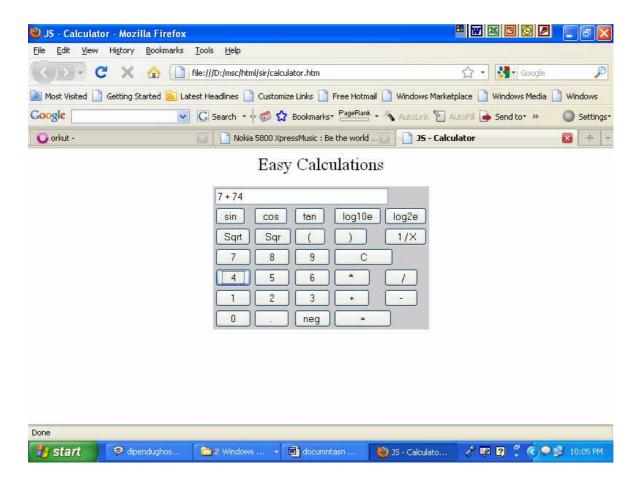
Like this the cos_form(), tan_form() calculate the cos value and tan value of the given number respectively.

inverse() calculate the inverse of the given number that is 1 divided by the giben number.

The last two functions are base10_log() and base2_log() that calculate log 10 base value and 2 base value of a given number.

Such we can calculate any calculation.

Output:--



16.program:--

Program for controls handling using onclick.

Code:

```
<html>
<head>
<title>Password Checking</title>

//for connecting java script
<script language="javascript">

//function for checking password
function ChkPasswd()

{
```

var guess = document.myFrm.Passwd.value;

```
var secret = document.myFrm.hdnSecret.value;
              if (guess == secret)
                     document.myFrm.txtOutput.value = "You May Proceed.....";
              else
                     document.myFrm.txtOutput.value = "That is Iincorrect.";
       }//end ChkPasswd
       //function for checking place
       function ChkPlace()
              document.myFrm1.txtOutput1.value= "";
              if (document.myFrm1.chkSea.checked == true){
                     document.myFrm1.txtOutput1.value = "You Like" +" "+
document.myFrm1.chkSea.value + "\n";
             if (document.myFrm1.chkHill.checked == true){
                     document.myFrm1.txtOutput1.value = "You Like" +" "+
document.myFrm1.chkHill.value + "\n";
              if (document.myFrm1.chkTmpl.checked == true){
                     document.myFrm1.txtOutput1.value = "You Like" +" "+
document.myFrm1.chkTmpl.value + "\n";
             if (document.myFrm1.chkJungle.checked == true){
                     document.myFrm1.txtOutput1.value = "You Like" +" "+
document.myFrm1.chkJungle.value + "\n";
              if (document.myFrm1.chkno.checked == true){
                    document.myFrm1.txtOutput1.value = "You Like" +" "+
document.myFrm1.chkno.value + "\n";
       }//end ChkPlace
      //function for checking selected radio button
       function ChkRadio()
       {
              var size,i,options;
              for (i = 0; i \le 3; i++)
```

```
options = document.myFrm2.color[i];
              if (options.checked == true){
                      size = options.value;
              }
       }
       document.myFrm2.txtOutput2.value = size + " " + "color";
}//end ChkRadio
//function for changing color
function ChangeColor()
{
       var selectColor = document.myFrm3.selColor;
       var optionSelected = selectColor[selectColor.selectedIndex];
       var Color = optionSelected.value;
       if(selectColor.selectedIndex == "0"){
              confirm("Are you sure for not changing the backgroung color?");
              document.bgColor = "white";
       }
              document.bgColor = Color;
}//end ChangeColor
//function for changing color
function ChangeColorMltilineList()
{
       var selectColors = document.myFrm4.multiSelColor;
       var optionsSelected = selectColors[selectColors.selectedIndex];
       var Color = optionsSelected.value;
       document.bgColor = Color;
       var colorLists = "";
       var i = 0;
       for (i=0; i<selectColors.length; i++)
              optionsSelected = selectColors.options[i];
              if (optionsSelected.selected == true){
                      colorLists += optionsSelected.value + "\n";
              }
       document.myFrm4.txtOutput3.value = colorLists ;
```

}//end ChangeColorMltilineList

```
</script>
</head>
//body part
<body>
<center>
     <h1><b>Password Checking</b></h1>
     <form name="myFrm">
           //creating table
           //creating table row
                 >
                       //creating table column
                       Please Enter Password
                       <input type="password" name="Passwd" size="20">
                 <center>
                             //creating button
                             <input type="button" value="Click Me!!"</pre>
onClick="ChkPasswd()">
                             </center>
                 <center>
                             //creating text area
                             <textarea name="txtOutput" rows="1"</pre>
cols="35"></textArea>
                             </center>
                       //creating input box hidden type
           <input type="hidden" name="hdnSecret" value="JavaScript">
     </form>
```

```
<hr>>
```

```
<h1>Travel Plan</h1>
     <form name="myFrm1">
           <h3>Please tell me what place you like to visit most:</h3>
           //creating check box
                       <input type="checkbox" name="chkSea" value="Sea
Side">Sea Side
                 <input type="checkbox" name="chkHill" value="Hill
Station">Hill Station
                 <input type="checkbox" name="chkTmpl" value="Holly
Place">Holly Place
                 <input type="checkbox" name="chkJungle"
value="Jungle Saffari">Jungle Saffari
                 <input type="checkbox" name="chkno" value=" to stay at
home">I don't to visit anywhere 
                 <center><input type="button" value="Click Me!!"</pre>
onClick="ChkPlace()"></center>
                 <textarea name="txtOutput1" rows="10" cols="35"></textarea>
     </form>
<hr>>
     <h1>Color Chooser</h1>
     <form name="myFrm2">
           <h3>Please tell me what place you like to visit most:</h3>
           //creating radio button
```

```
<input type="radio" name="color"
                   value="Orange">Orange
                         <input type="radio" name="color"
value="Blue">Blue
                   <input type="radio" name="color"
value="Black">Black
                         <input type="radio" name="color"
value="Red">Red
                   <center><input type="button" value="Click Me!!"</pre>
onClick="ChkRadio()"></center>
                   <textarea name="txtOutput2" rows="5" cols="65"></textarea>
      </form>
<hr>>
      <h1>Color Selector</h1>
      <form name="myFrm3">
            <h3>Please Select A Color</h3>
            //creating drop down list box
            <select name=selColor>
                   <option value=white><< None >></option>
                   <option value=red>red</option>
                   <option value=orange>orange</option>
                   <option value=yellow>yellow</option>
                   <option value=green>green</option>
                   <option value=blue>blue</option>
                   <option value=indigo>indigo</option>
                   <option value=violet>violet</option>
            </select>
            \langle br \rangle
            <br>
```

```
<input type="button" value="Click Me!!" onclick = "ChangeColor()">
       </form>
<hr>>
       <h1>Color Selector using Multiline List</h1>
       <form name="myFrm4">
              <h3>Please Select Color/Colors</h3>
              //creating list box
              <select multiple size=7 name=multiSelColor>
                     <option value=white><< None >></option>
                     <option value=red>red</option>
                     <option value=orange>orange</option>
                     <option value=yellow>yellow</option>
                     <option value=green>green</option>
                     <option value=blue>blue</option>
                     <option value=indigo>indigo</option>
                     <option value=violet>violet</option>
              </select>
              <br>
              <br>>
              <center><input type="button" value="Click Me!!" onclick =</pre>
"ChangeColorMltilineList()"></center>
              <textarea name="txtOutput3" rows="5" cols="20"></textarea>
       </form>
<hr>>
</center>
</body>
</html>
```

The title of the program is Password Checking. We make a form named myFrm. Make a table of border 1. Then make a row and a column in that row that contains the heading Please Enter Password and another hidden type text for taking input as password. Then make another row and a column that contain a button named "Click Me" i.e. when we click on that button a function ChkPasswd() will be executed. We make a text area named txtOutput for displaying some message.

We make another form "myFrm1" for designing Travel Plan. We design some check boxes containing some traveling places' names and a button named click me that execute ChkPlace() on the event onclick. We also make a text area txtOutput1 after that.

Another form myFrm2 is designed for "Color Chooser". We make some radio buttons of different colors in a table and a button click me, that execute ChkRadio() when user click on the button. Another text area "txtOutput2" is also designed here.

The next form myFrm3" is for Color Selector. We make a drop down list selColor for different colors and a button click me that execute ChangeColor() on onclick event.

The last form "myFrm4" is for Color Selector using Multiline List. There is a list box of some colors and a button click me. The function ChangeColorMltilineList() will execute by clicking the button. Another text area for some message is also designed here.

Next come the part of java script where the function bodies are written. In the function ChkPasswd() there are two variables secret and guess. Guess conation the value given by user and secret contain the actual password. If guess = =secret then a message "You May Proceed......" will display and if not the message "That is Iincorrect" will shown. Next function is ChkPlace(). Here we check every check box. And the name of the places of the selected check box will display in the text area.

The next function is ChkRadio(). In this function we check the selected radio button and print the name of the color in the text area.

Next function is ChangeColor() that change the back ground color in choice of the user. Here we use three variables selectColor that holds the selector. Variable optionSelected holds the selected color and color holds value. If there is no selected color then a message "Are you sure for not changing the backgroung color?" will shown and the back ground color will set to white, otherwise the back ground color will be the selected color.

The last function is ChangeColorMltilineList() that also display a selected color. In this function we also use the three variables selectColor, selectColor and color as the same purpose. Then it checks if there is any selected color and which color is selected. Finally, it change the color with the selected color.

Output:--

