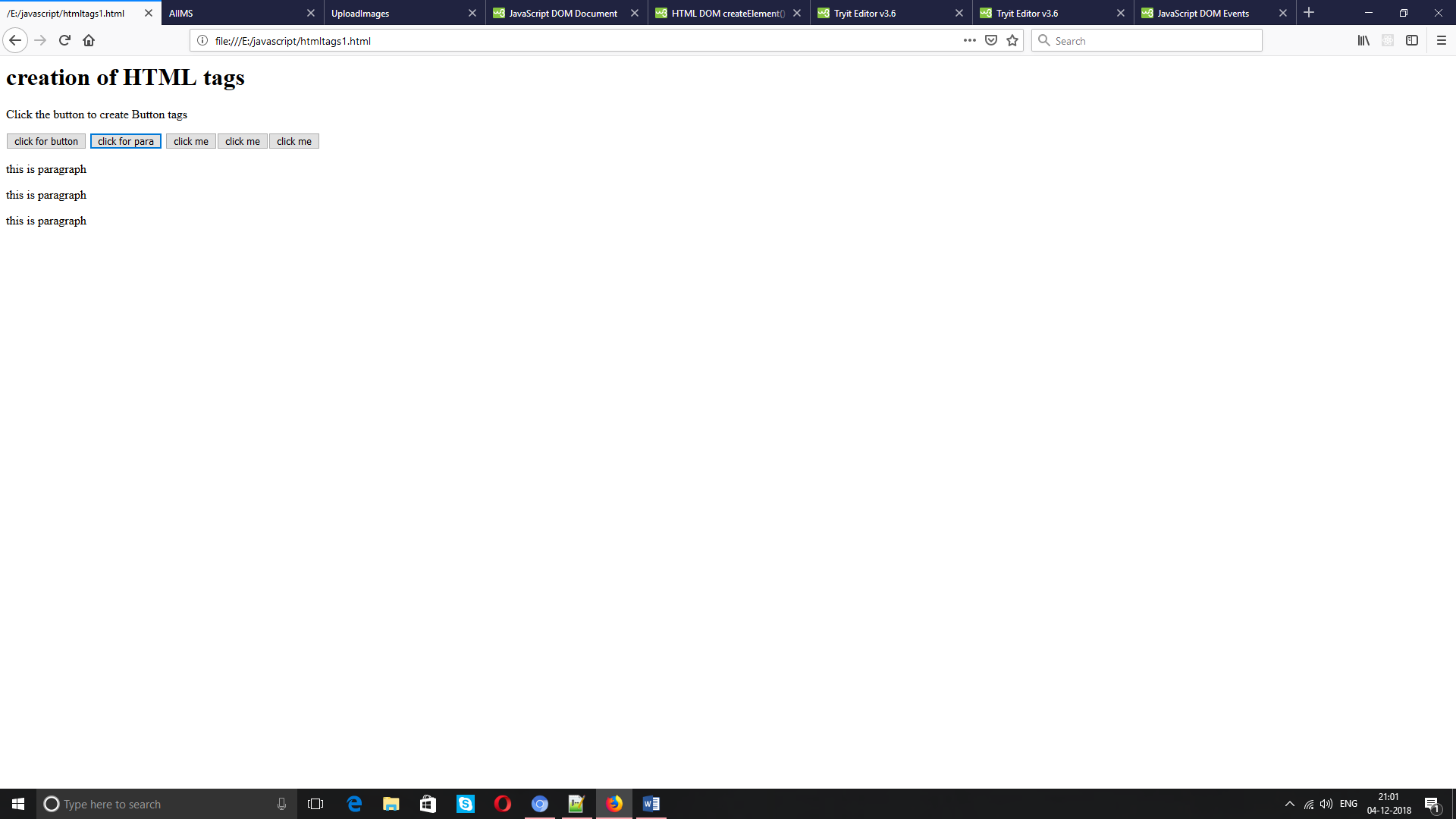
https://www.w3schools.com/js/js\_array\_sort.asp

ex 1: create HTML tags using document object

|  |
| --- |
| <html>  <head>  <h1> creation of HTML tags</h1>  </head>  <body>  <p>Click the button to create Button tags</p>  <button onclick="createbutton()"> click for button</button>  <button onclick="createpara()"> click for para</button>  <script language="javascript" type="text/javascript">  function createbutton()  {  var btn=document.createElement("BUTTON");  var t=document.createTextNode("click me");  btn.appendChild(t);  document.body.appendChild(btn);  }  function createpara()  {  var para1=document.createElement("P");  var t1=document.createTextNode("this is paragraph");  para1.appendChild(t1);  document.body.appendChild(para1);  }  </script>  </body>  </html> |

Output



The Compare Function

The purpose of the compare function is to define an alternative sort order.

The compare function should return a negative, zero, or positive value, depending on the arguments:

Syntax

function(a,b){return a-b}

When the sort() function compares two values, it sends the values to the compare function, and sorts the values according to the returned (negative, zero, positive) value.

**Example:**

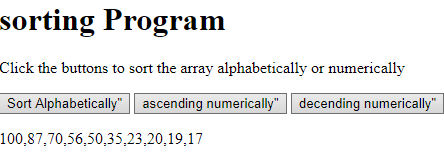
When comparing 40 and 100, the sort() method calls the compare function(40,100).

The function calculates 40-100, and returns -60 (a negative value).

The sort function will sort 40 as a value lower than 100.

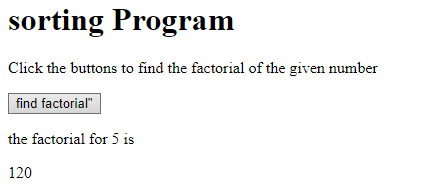
Exercise 2:

|  |
| --- |
| <html>  <head>  <h1>sorting Program</h1>  </head>  <body>  <p> Click the buttons to sort the array alphabetically or numerically</p>  <button onclick="alphasort()">Sort Alphabetically"</button>  <button onclick="asc\_numerical()">ascending numerically"</button>  <button onclick="desc\_numerical()">decending numerically"</button>  <p id="p1"></p>  <script language="javascript" type="text/javascript">  var points=[50,20,70,35,19,17,23,100,56,87];  document.getElementById("p1").innerHTML=points;  function alphasort()  {  points.sort();  document.getElementById("p1").innerHTML=points;  }  function asc\_numerical()  {  points.sort(function(a,b){return a-b});  document.getElementById("p1").innerHTML=points;  }  function desc\_numerical()  {  points.sort(function(a,b){return b-a});  document.getElementById("p1").innerHTML=points;  }  </script>  </body>  </html> |



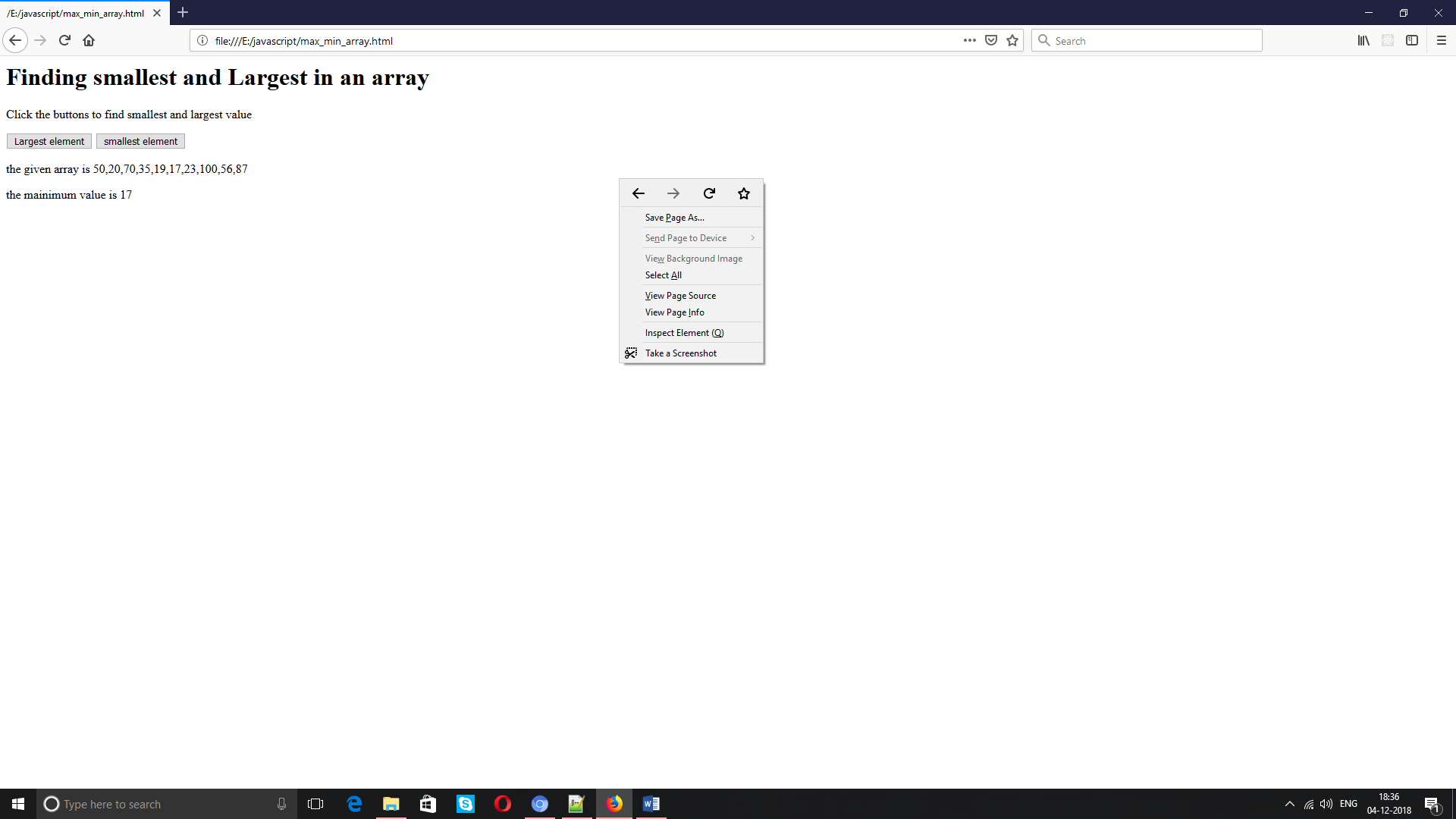
Exercise 3: Factorial

|  |
| --- |
| <html>  <head>  <h1>Factorial Program</h1>  </head>  <body>  <p> Click the buttons to find the factorial of the given number</p>  <button onclick="factorial()">find factorial"</button>  <p id="p1"></p>  <p id="p2"></p>  <script language="javascript" type="text/javascript">  var n;  n=prompt("enter the number",0);  function factorial()  {  var fact=1;  if(n<=0)  {  fact=1;  }  else  {  for(i=1;i<=n;i++)  {  fact=fact\*i;  }  }  document.getElementById("p1").innerHTML="the factorial for "+n+" is ";  document.getElementById("p2").innerHTML=fact;  }  </script>  </body>  </html> |



Ex:4 Program to find largest and smallest in the given list

|  |
| --- |
| <html>  <head>  <h1>Finding smallest and Largest in an array</h1>  </head>  <body>  <p> Click the buttons to find smallest and largest value</p>  <button onclick="find\_max()">Largest element</button>  <button onclick="find\_min()">smallest element</button>  <p id="p1"></p>  <p id="p2"></p>  <script language="javascript" type="text/javascript">  var n= prompt("enter the total number");  var points=new Array();  for(i=0;i<n;i++)  {  points[i]=prompt("enter the value");  }  document.getElementById("p1").innerHTML="the given array is "+points;  function find\_max()  {  var maxvalue=points[0];  for(var i=0;i<=points.length;i++)  {  if(maxvalue<points[i])  {  maxvalue=points[i];  } //if  } //for  document.getElementById("p2").innerHTML="the maximum value is "+maxvalue;  }  function find\_min()  {  var minvalue=points[0];  for(var i=0;i<=points.length;i++)  {  if(minvalue>points[i])  {  minvalue=points[i];  } //if  } //for  document.getElementById("p2").innerHTML="the mainimum value is "+minvalue;  }  </script>  </body>  </html> |



Ex: 5 Digital clock

|  |
| --- |
| <html>  <head>  <title>Digital Clock</title>  <h1> Digital clock</h1>  </head>  <body>  Current Time : <span id="txt"></span>  <script language="javascript" type="text/javascript">  window.onload=function(){getTime();}  function getTime()  {  var today=new Date();  var h=today.getHours();  var m=today.getMinutes();  var s=today.getSeconds();  if(m<10)  m="0"+m;  if(s<10)  s="0"+s;  document.getElementById('txt').innerHTML=h+" : "+m+" : "+s;  setTimeout(function(){getTime()},500);  }  </script>  </body>  </html> |

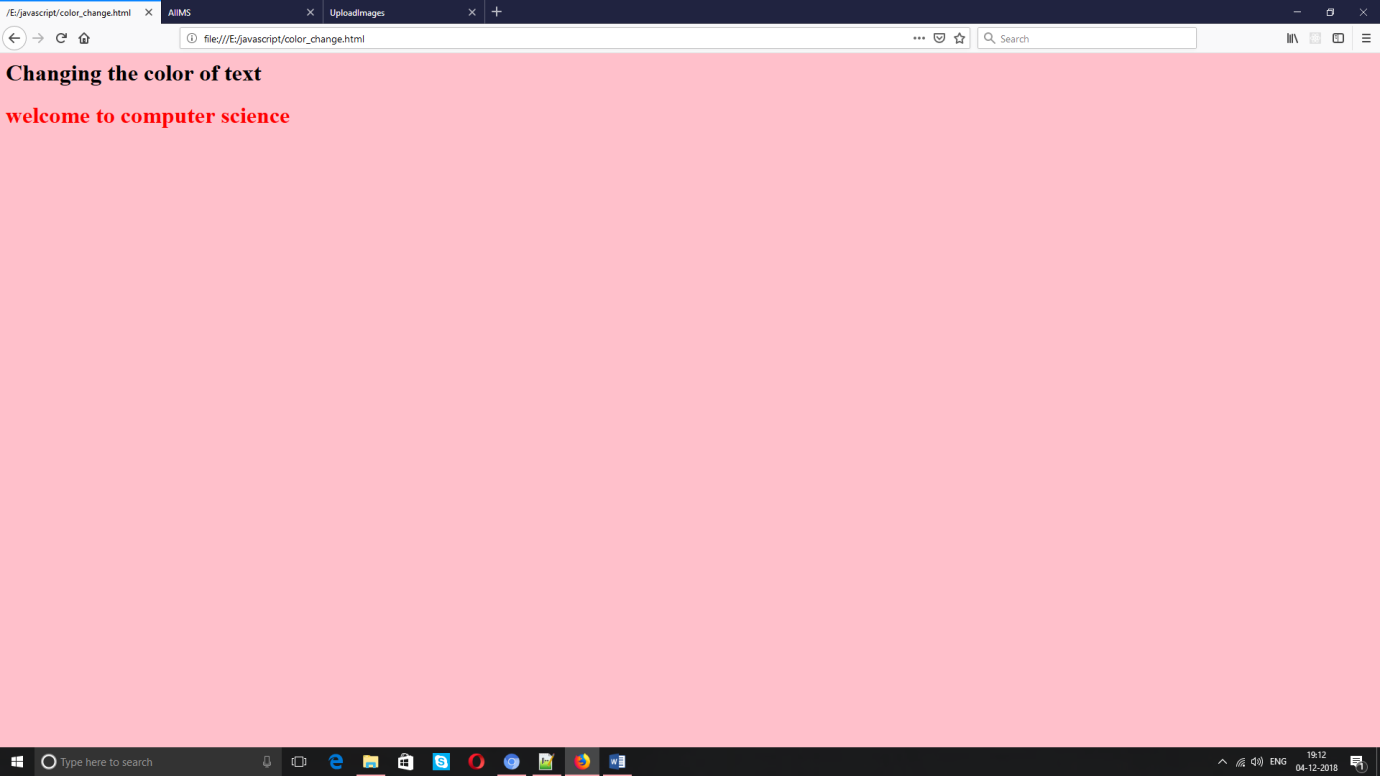
Output

# Digital clock

Current Time : 13 : 42 : 00

Ex:6 create a webpage to display the text “welcome computer science” as a heading and changes its color from black to white and then red at an interval of 1000 milliseconds

|  |
| --- |
| <html>  <head>  <h1>Changing the color of text</h1>  </head>  <body bgcolor=pink onload=fontblack();>  <div id="colorchange"><h1>welcome to computer science</h1>  <script language="javascript" type="text/javascript">  function fontblack()  {  document.getElementById("colorchange").style.color="black";  setTimeout("fontred()",1000);  }  function fontred()  {  document.getElementById("colorchange").style.color="red";  setTimeout("fontwhite()",1000);  }  function fontwhite()  {  document.getElementById("colorchange").style.color="white";  setTimeout("fontblack()",1000);  }  </script>  </body>  </html> |

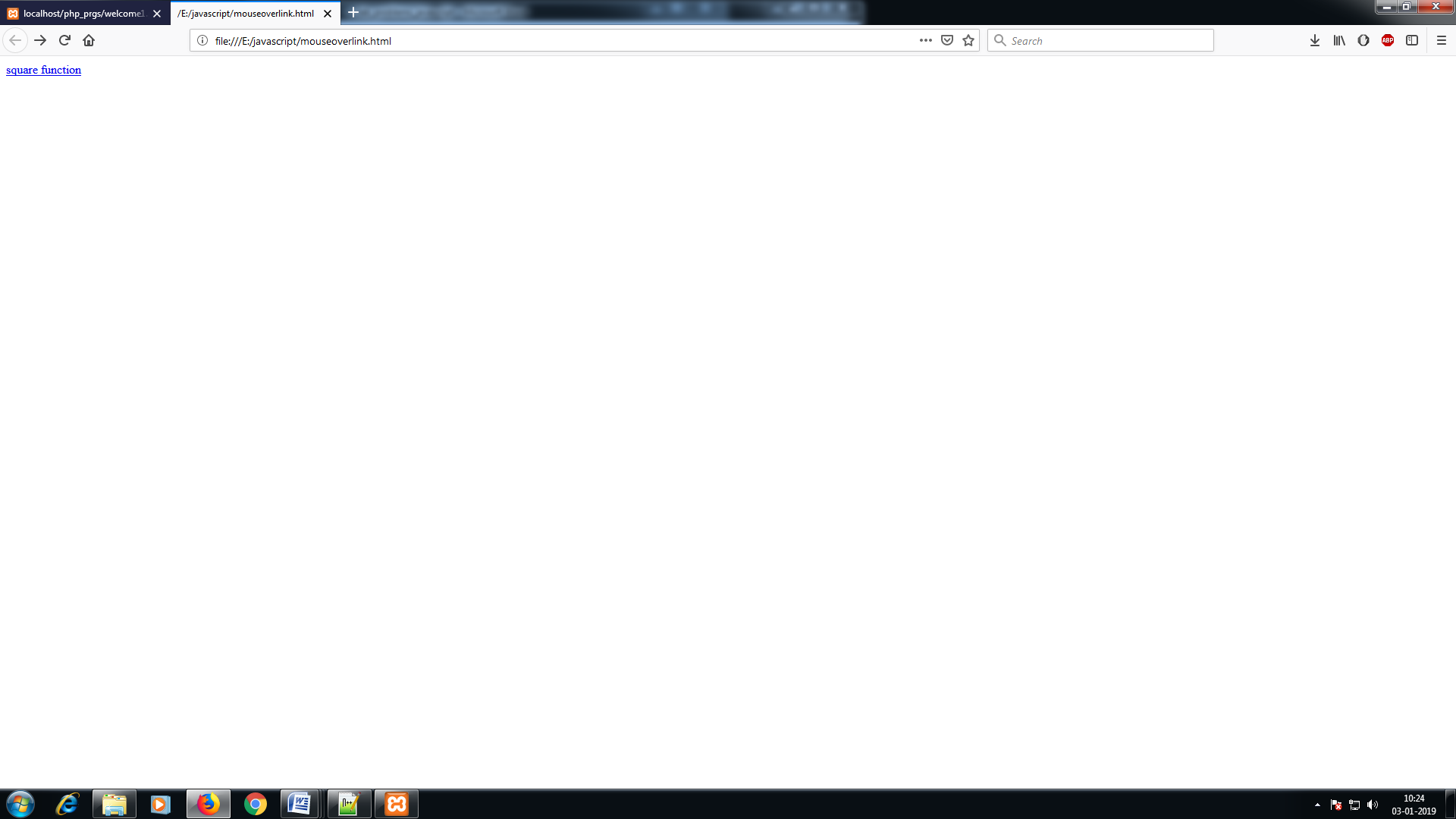


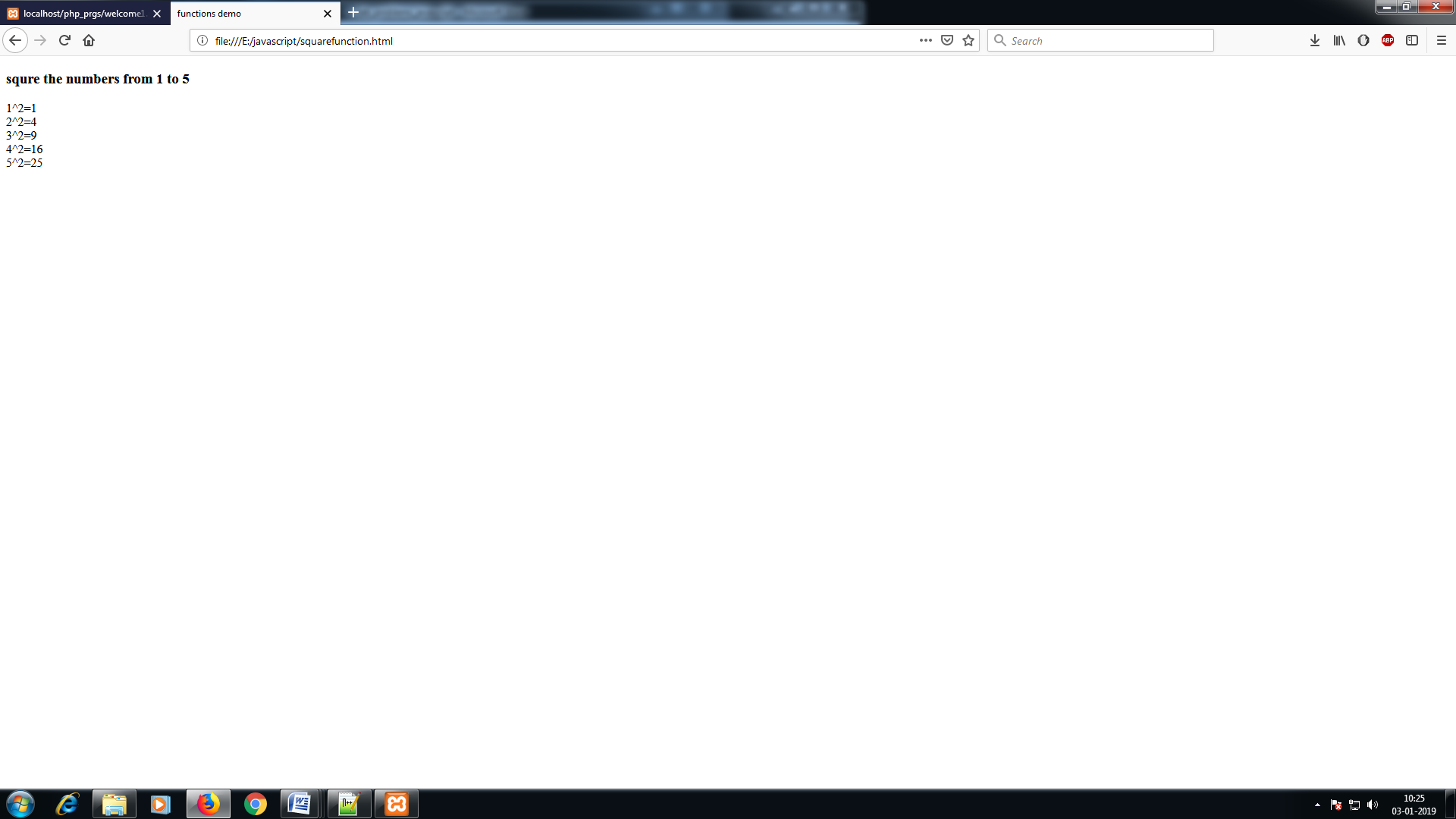
Ex:7 **Create A Document And A Link To It When The User Moves The Mouse Over The Link It Should Load The Linked Document On Its Own(User Is Not Required To Click On The Link)**

**PROGRAM:**

|  |
| --- |
| <html>  <head>  </head>  <body>  <a href="#" onmouseover="linkfunc()"> square function </a>  </body>  <script language="javascript" type="text/javascript">  function linkfunc()  {  window.location="squarefunction.html";  }  </script>  </html> |

**Output**





**Ex No : 8**

**Create a document , which opens a new window without a toolbar, address bar**

**Program:**

# **Using the window.open method**

The syntax of the window.open method is given below:  
open (URL, windowName[, windowFeatures])

URL  
The URL of the page to open in the new window. This argument could be blank.

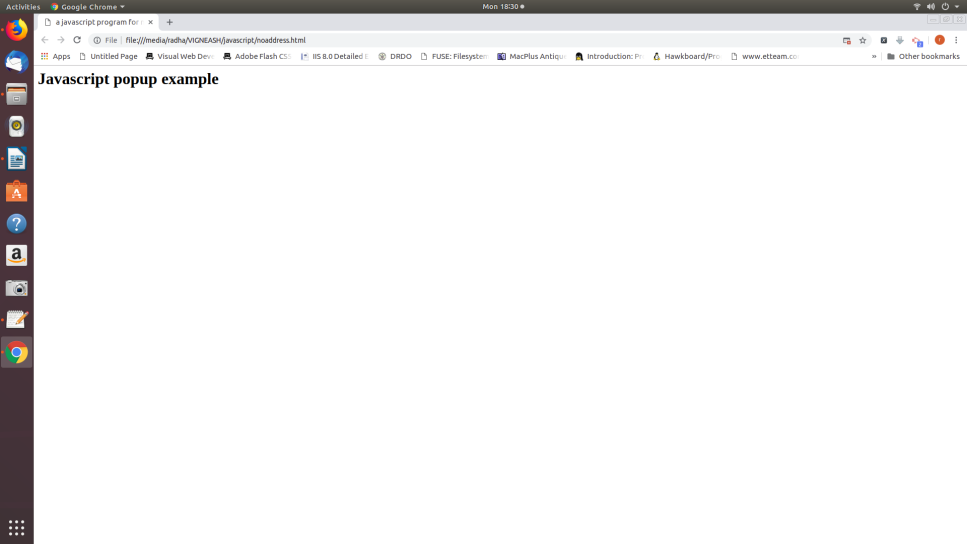
windowName  
A name to be given to the new window. The name can be used to refer this window again.

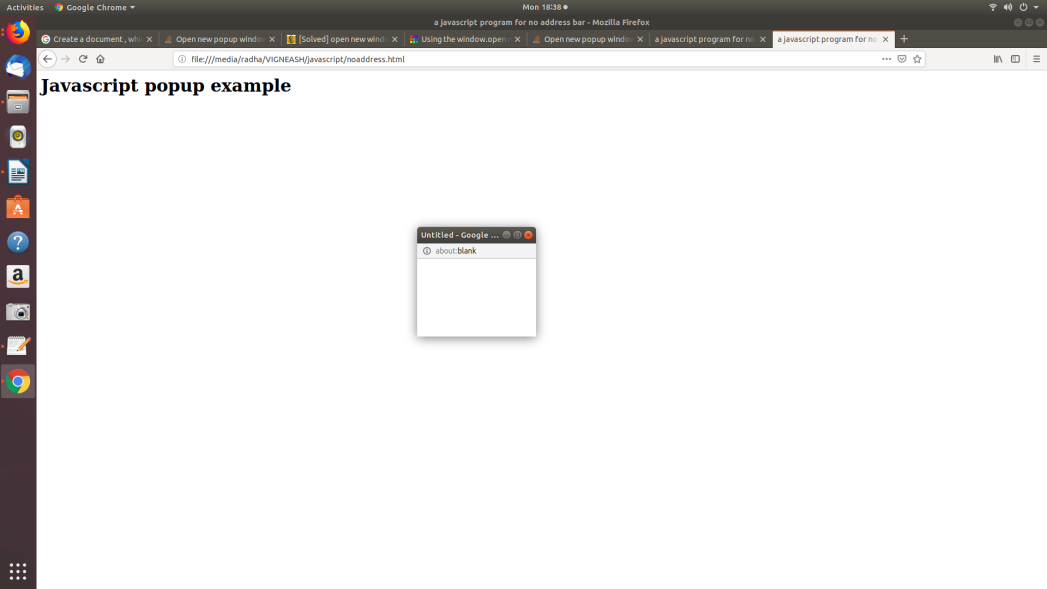
windowFeatures  
A string that determines the various window features to be included in the popup window (like status bar, address bar etc)  
  
The following code opens a new browser window with standard features.

|  |
| --- |
| window.open ("http://jsc.simfatic-solutions.com","mywindow"); |

**With address bar, status bar etc**

|  |
| --- |
| <html>  <head>  <title>a javascript program for no address bar</title>  </head>  <script type="text/javascript">  function poponload()  {  window1=window.open("","mywindow","location=1,status=1,scrollbars=1,width=100,height=100");  window1=window.open("","mywindow","location=1,status=0,scrollbars=0,toolbar=0,width=100,height=100");  window1.moveTo(0,0)  }  </script>  <body onload="poponload();">  <h1> Javascript popup example</h1>  </body>  </html> |



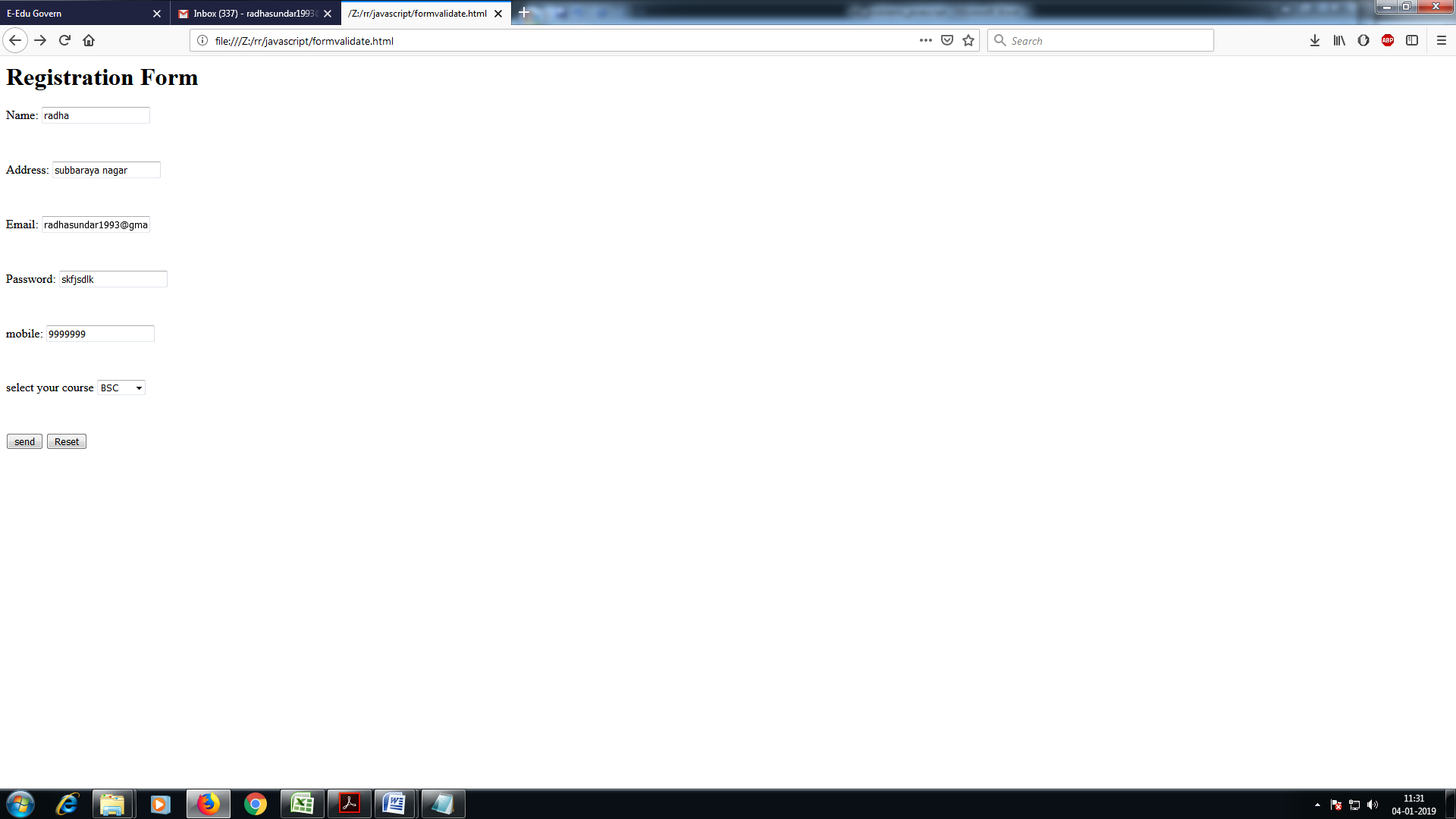


**Ex No : 9**

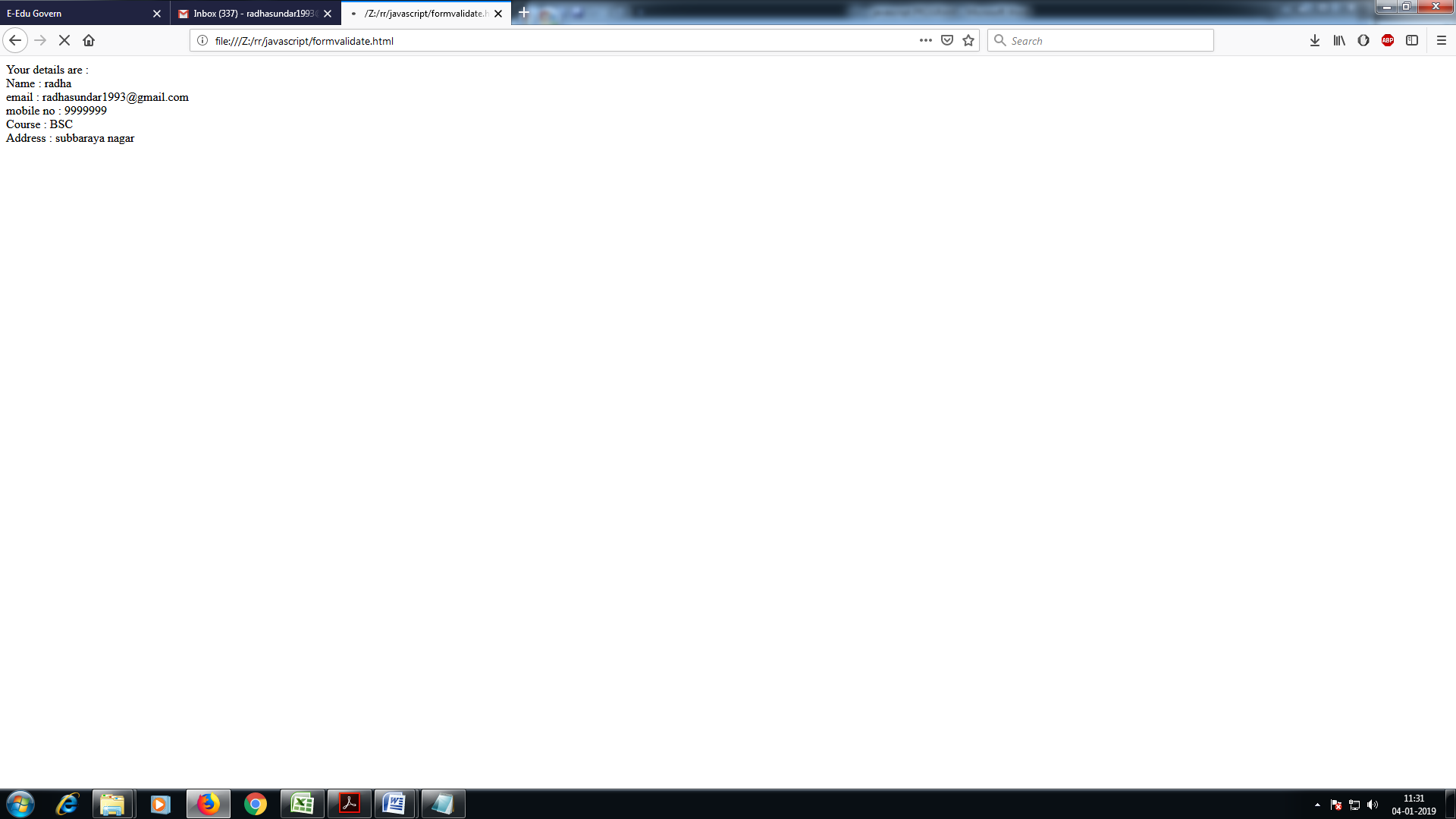
**CREATE A WEBPAGE FOR GETTING PERSONAL DETIALS USING FORM CONTROLS**

**Program:**

|  |
| --- |
| <html>  <head>  <script language="javascript">  function formcheck()  {  var stname=document.forms["regform"]["Name"];  var email=document.forms["regform"]["Email"];  var phone=document.forms["regform"]["mphone"];  var sub=document.forms["regform"]["subject"];  var password= document.forms["regform"]["pass"];  var add1= document.forms["regform"]["address"];  if(stname.value=="")  {  window.alert("Please enter your name");  stname.focus();  }  if(add1.value=="")  {  window.alert("Please enter your address");  add1.focus();  return false;  }  if(phone.value=="")  {  window.alert("Please enter your mobile number");  phone.focus();  return false;  }  if(password.value=="")  {  window.alert("Please enter your password");  password.focus();  return false;  }  <!-- indexOf returns the position of first occurence of a specified string-->  <!-- if search fails it returns a -1 -->  if(email.value.indexOf('@',0)<0)  {  window.alert("Please enter a valid email");  email.focus();  return false;  }  if(email.value.indexOf('.',0)<0)  {  window.alert("Please enter a valid email");  email.focus();  return false;  }  if(sub.selectedIndex<1)  {  window.alert("Please enter your course");  sub.focus();  return false;  }  document.writeln("Your details are : "+"<br>");  document.writeln("Name : "+stname.value+"<br>");  document.writeln("email : "+email.value+"<br>");  document.writeln("mobile no : "+phone.value+"<br>");  document.writeln("Course : "+sub.value+"<br>");  document.writeln("Address : "+add1.value+"<br>");  }  </script>  </head>  <body>  <h1>Registration Form</h1>  <form name="regform" onsubmit="return formcheck()" method="post">  <p> Name: <input type="text" name="Name"></p><br>  <p> Address: <input type="text" name="address"></p><br>  <p> Email: <input type="text" name="Email"></p><br>  <p> Password: <input type="text" name="pass"></p><br>  <p> mobile: <input type="text" name="mphone"></p><br>  <p> select your course  <select type="text" value="" name="subject">  <option> -- </option>  <option> BCA </option>  <option> BSC </option>  <option> B.Com </option>  </select>  </p> <br>  <p><input type="submit" value="send" name="submit">  <input type="reset" value="Reset" name="Reset">  </p>  </form>  </body>  </html> |



**Output**

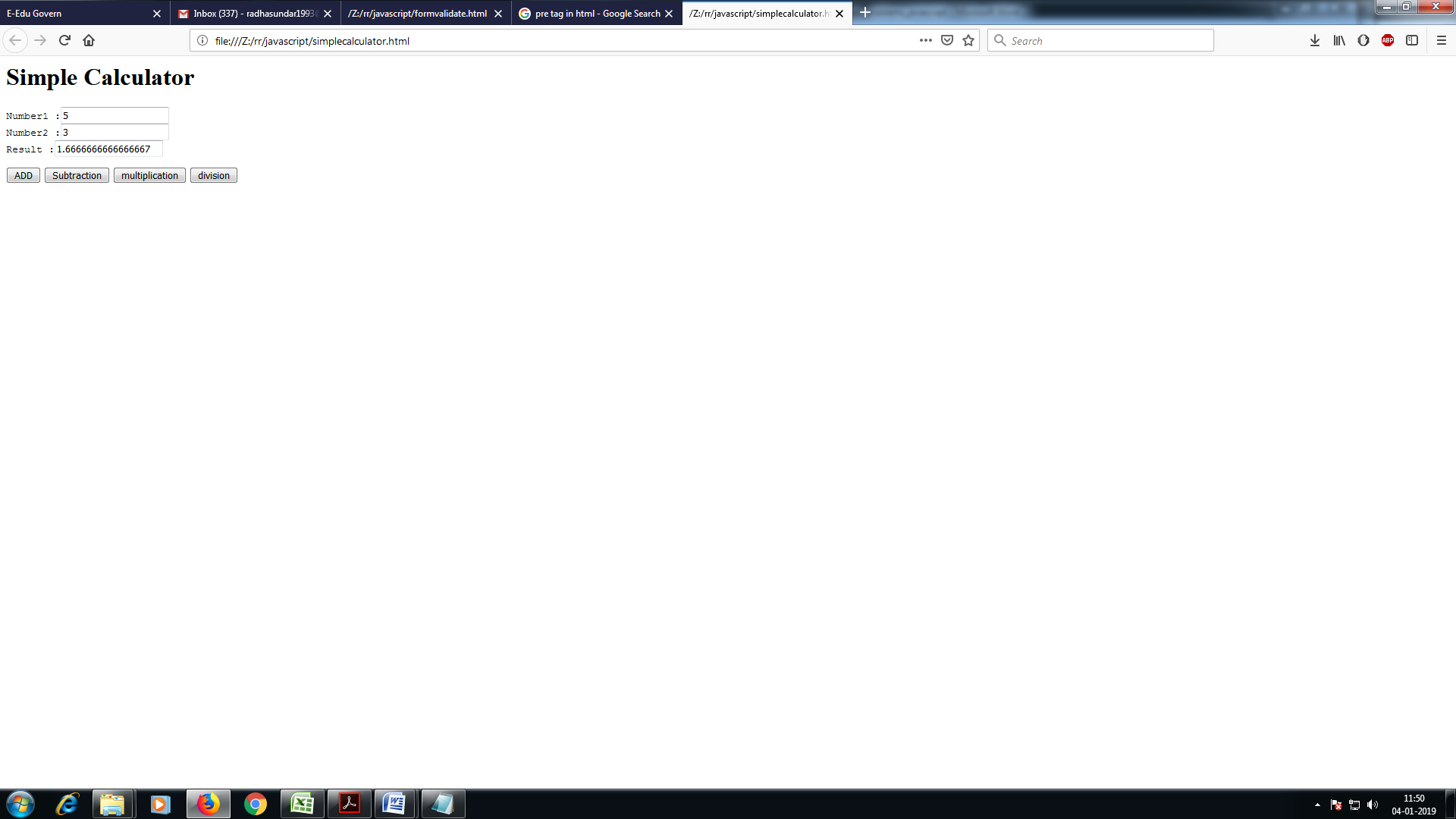


**Ex No : 10**

Write a java script program to design a simple calculator using form fields. Have two fields for input and one field for the output. Allow user to be able to do plus, minus, multiply and divide.

|  |
| --- |
| <html>  <head>  <script language="javascript">  function add()  {  var a=Number(document.forms["mycal"]["var1"].value);  var b=Number(document.forms["mycal"]["var2"].value);  var c=a+b;  document.mycal.total.value=c;  }  function sub()  {  var a=Number(document.forms["mycal"]["var1"].value);  var b=Number(document.forms["mycal"]["var2"].value);  var c=a-b;  document.mycal.total.value=c;  }  function mul()  {  var a=Number(document.forms["mycal"]["var1"].value);  var b=Number(document.forms["mycal"]["var2"].value);  var c=a\*b;  document.mycal.total.value=c;  }  function div()  {  var a=Number(document.forms["mycal"]["var1"].value);  var b=Number(document.forms["mycal"]["var2"].value);  var c=a/b;  document.mycal.total.value=c;  }  </script>  </head>  <body>  <h1> Simple Calculator</h1>  <form name="mycal" >  <pre>  Number1 :<input type="text" name="var1"/>  Number2 :<input type="text" name="var2"/>  Result :<input type="text" name="total"/>  </pre>  <input type="button" value="ADD" onclick="add()">  <input type="button" value="Subtraction" onclick="sub()">  <input type="button" value="multiplication" onclick="mul()">  <input type="button" value="division" onclick="div()">  </form>  </body>  </html> |

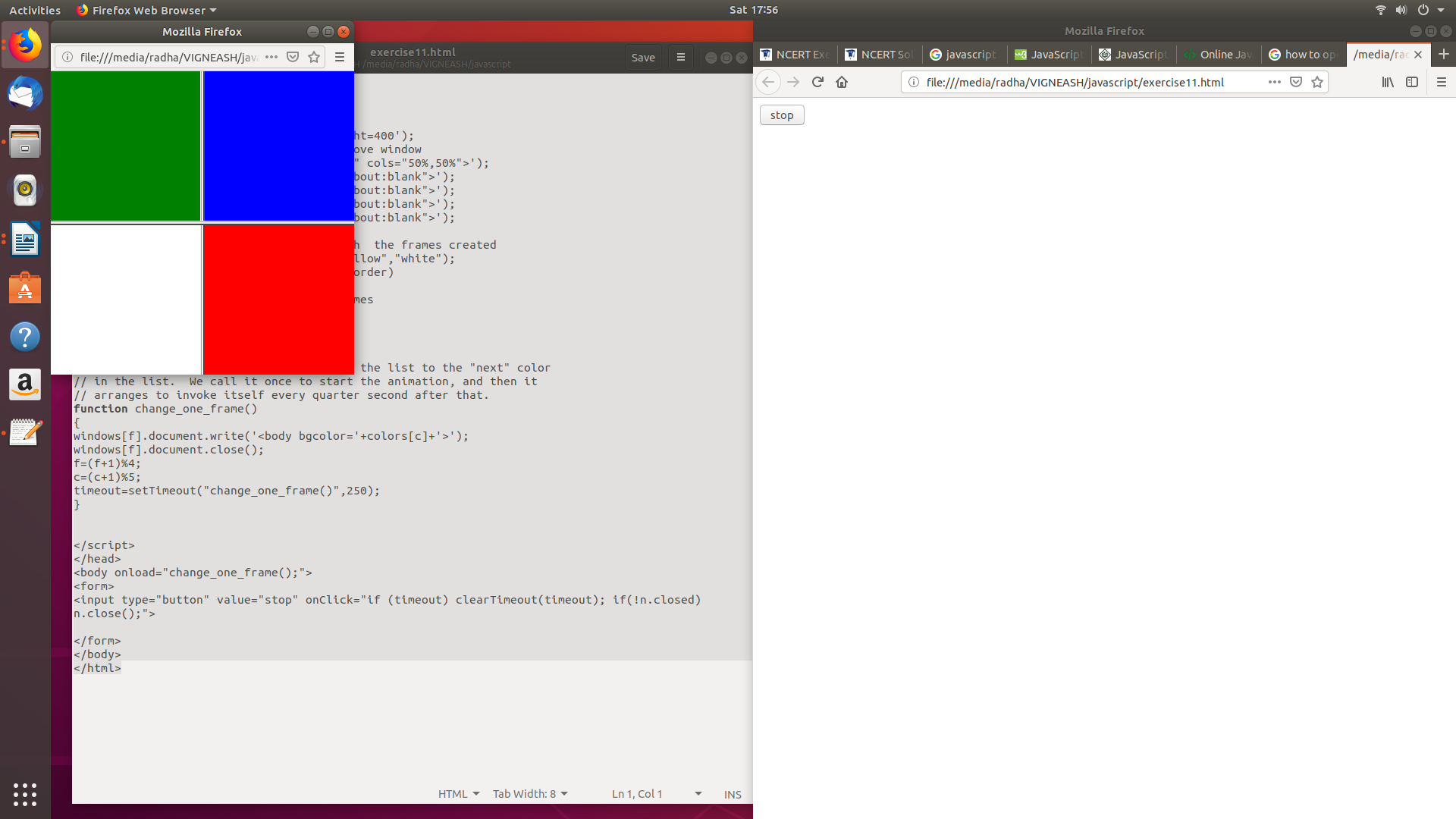
Output



**Ex No : 11**

Dynamically creating and animating frame using Javascript.

|  |
| --- |
| <html>  <head>  <script language="javascript">  //open a new window  var n=window.open('','f','width=400, height=400');  //dynamically create frames within the above window  n.document.write('<frameset rows="50%,50%" cols="50%,50%">');  n.document.write('<frame name="f1" src="about:blank">');  n.document.write('<frame name="f2" src="about:blank">');  n.document.write('<frame name="f3" src="about:blank">');  n.document.write('<frame name="f4" src="about:blank">');  n.document.write('<frameset>');  // an array of colors to be cycled through the frames created  colors=new Array("red","green","blue","yellow","white");  // an array of frames cycle through (the order)  windows=new Array(n.f1,n.f2,n.f3,n.f4);  // initialize the count for color and frames  var c=0,f=0;  //a variable to hold the current timeout  var timeout=null;  // This function sets the "next" frame in the list to the "next" color  // in the list. We call it once to start the animation, and then it  // arranges to invoke itself every quarter second after that.  function change\_one\_frame()  {  windows[f].document.write('<body bgcolor='+colors[c]+'>');  windows[f].document.close();  f=(f+1)%4;  c=(c+1)%5;  timeout=setTimeout("change\_one\_frame()",250);  }  </script>  </head>  <body onload="change\_one\_frame();">  <form>  <input type="button" value="stop" onClick="if (timeout) clearTimeout(timeout); if(!n.closed) n.close();">  </form>  </body>  </html> |

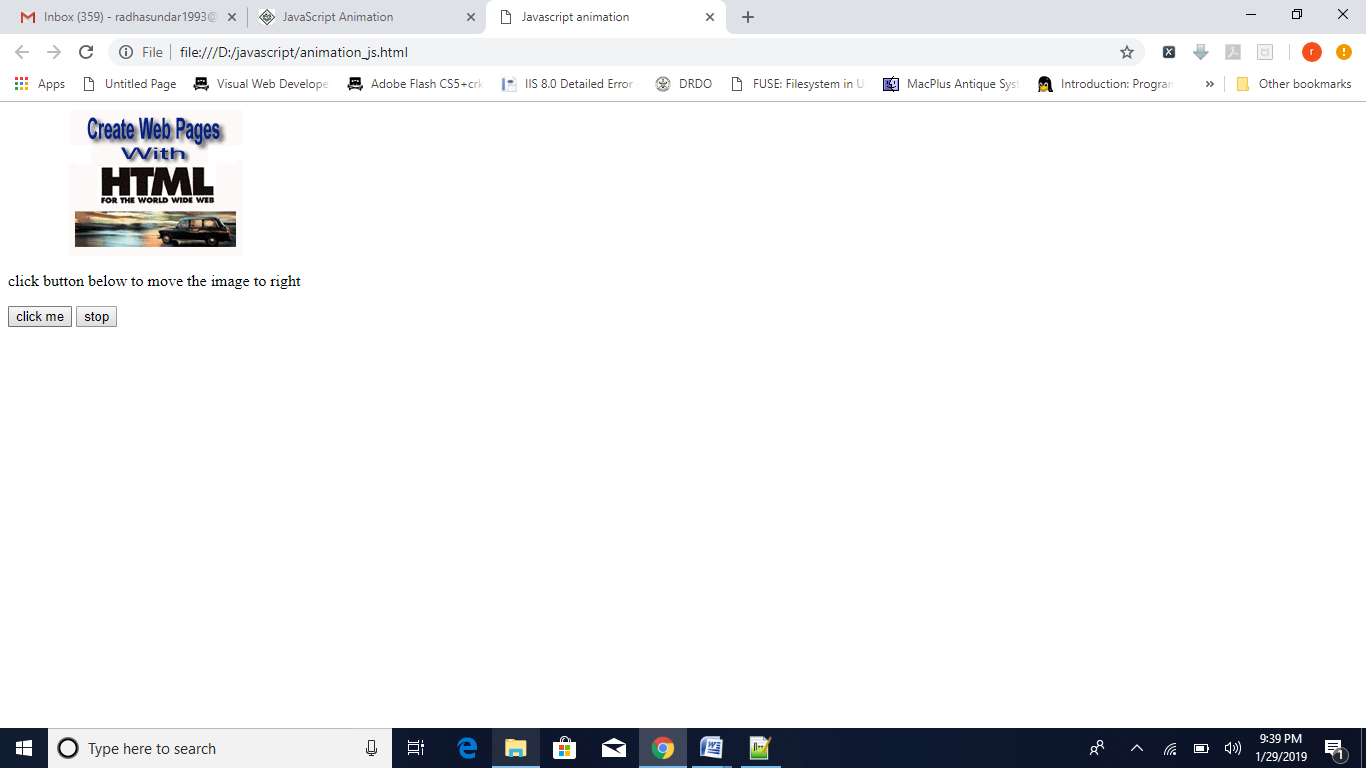
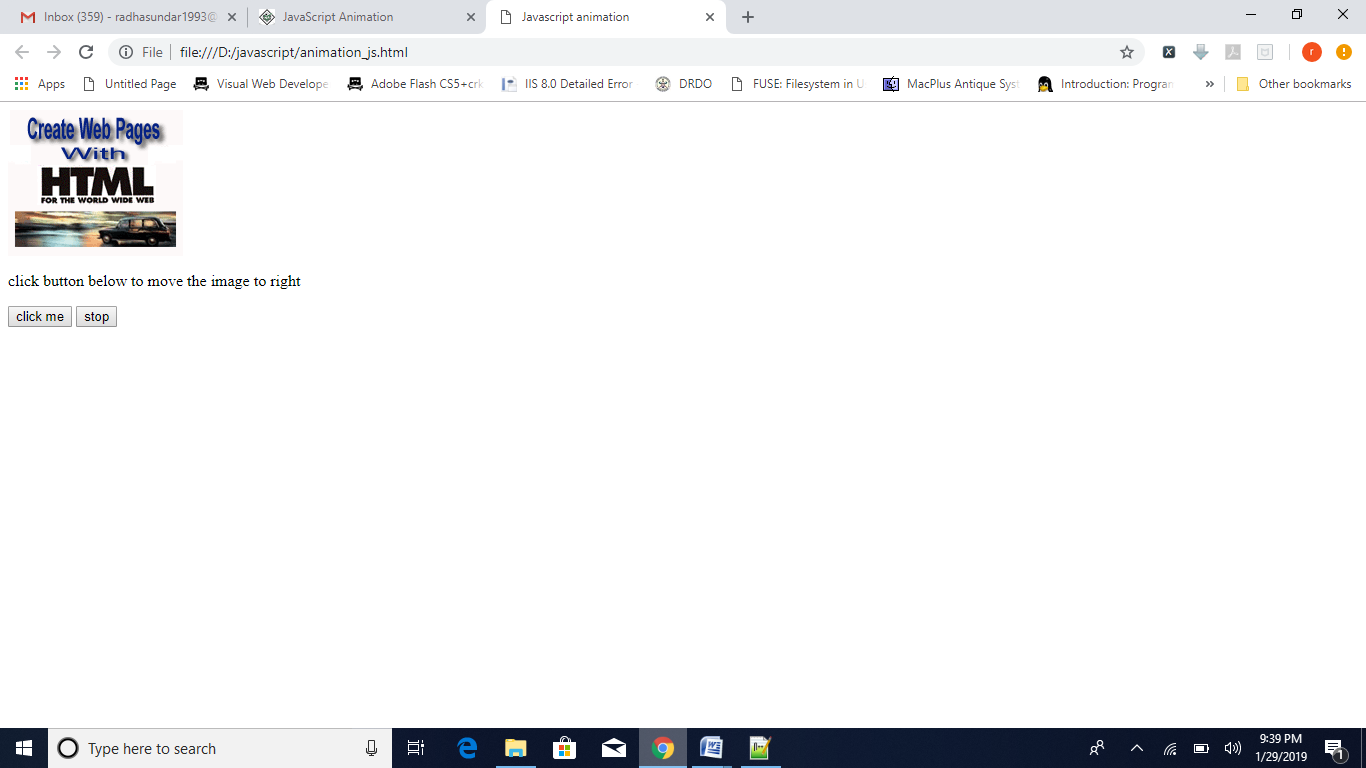
Output

**Ex No : 12**

An Animation Using the onLoad() Event Handler using Javascript

|  |
| --- |
| <html>  <head>  <title>Javascript animation</title>  <script type="text/javascript" language="javascript">  var imgobj=null;  var animate;  function init()  {  imgobj=document.getElementById("mypic");  imgobj.style.position='relative';  imgobj.style.left='0px';  }  function moveRight()  {  imgobj.style.left=parseInt(imgobj.style.left) + 10 + 'px';  }  function stop()  {  clearTimeout(animate);  imgobj.style.left='0px';  }  window.onload=init;  </script>  </head>  <body>  <form>  <img id="mypic" src="image1.gif">  <p> click button below to move the image to right</p>  <input type="button" value="click me" onclick="moveRight();"/>  <input type="button" value="stop" onclick="stop();"/>  </form>  </body>  </html> |

Output



**Ex No : 13**

Implementing a Toggle Button with Image Replacement using Javascript

|  |
| --- |
| <html>  <head>  <h1> changing the image</h1>  </head>  <body>  <script language="javascript">  function changeImage()  {  var img=document.getElementById("image1");  if(img.src.match("image1"))  {  img.src="image2.gif";  }  else  {  img.src="image1.gif";  }  }  </script>  </body>  <img src="image1.gif" id="image1" width=100 height="100">  <input type="button" onclick="changeImage()" value="change">  <p> click the "change" button </p>  </html> |

**Output**



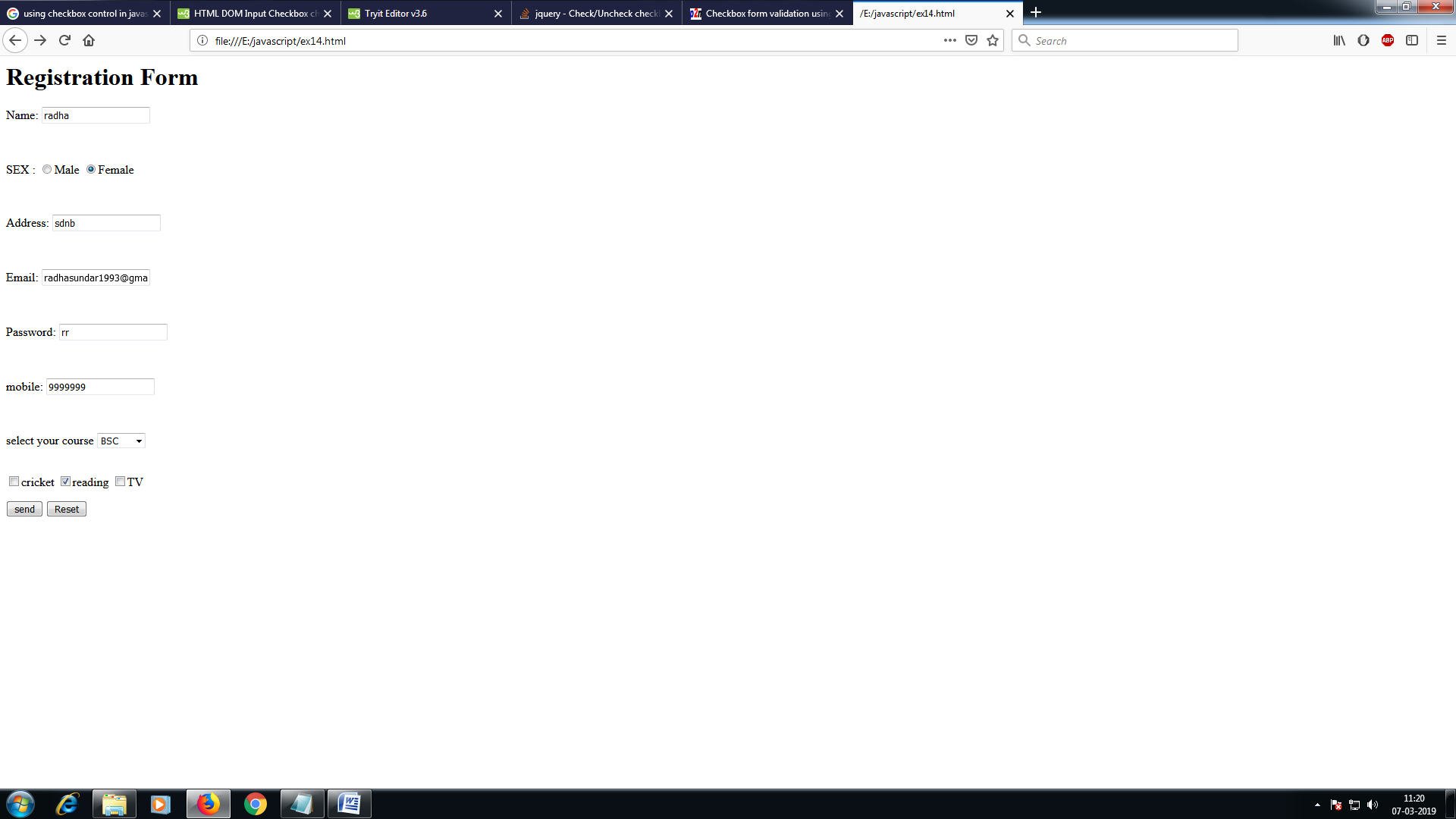
****

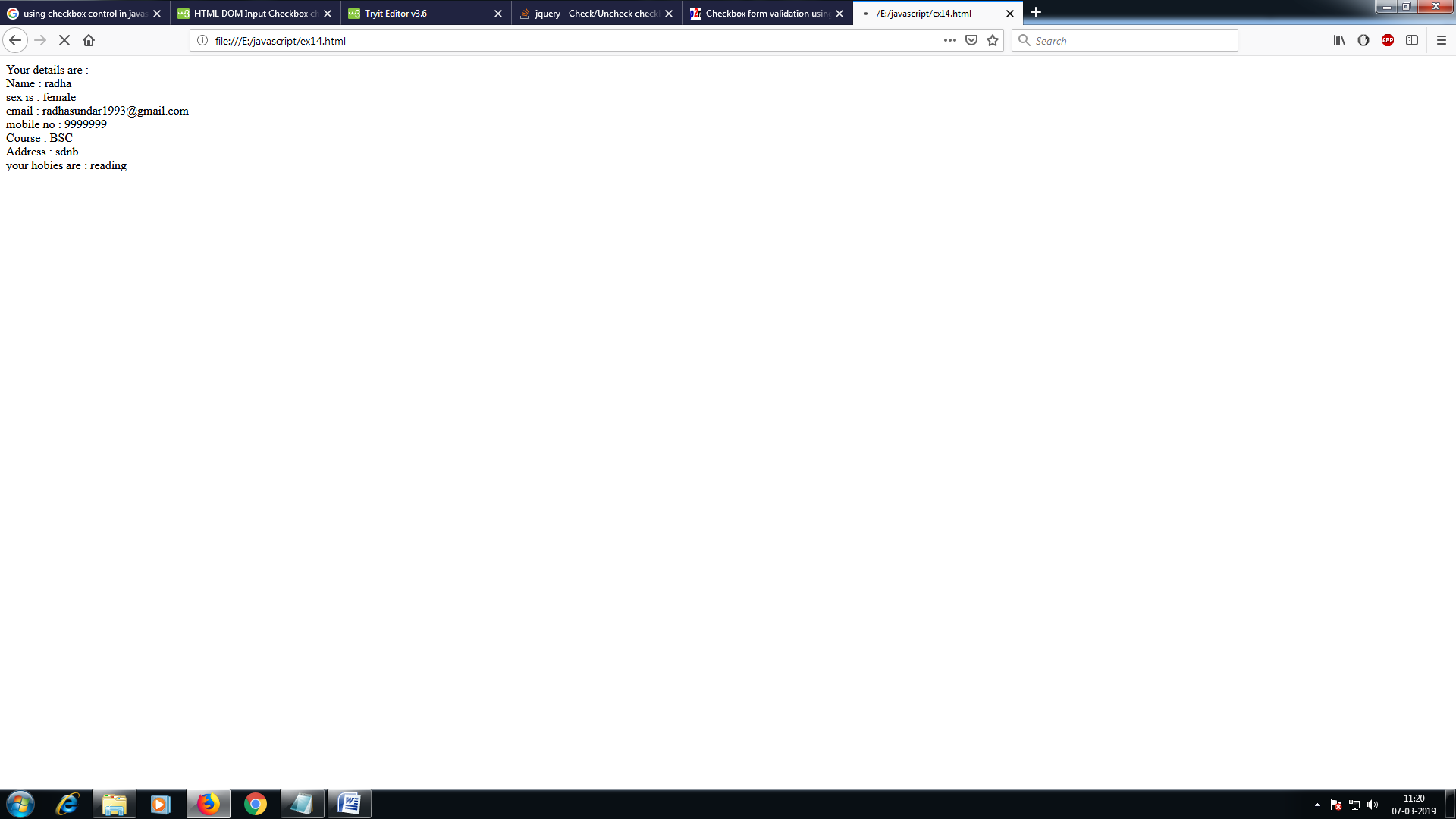
**Ex No : 14**

An HTML Form Containing all Form Elements using Javascript

|  |
| --- |
| <html>  <head>  <script language="javascript">  function formcheck()  {  var stname=document.forms["regform"]["Name"];  var email=document.forms["regform"]["Email"];  var phone=document.forms["regform"]["mphone"];  var sub=document.forms["regform"]["subject"];  var password= document.forms["regform"]["pass"];  var add1= document.forms["regform"]["address"];  if(stname.value=="")  {  window.alert("Please enter your name");  stname.focus();  }  if(add1.value=="")  {  window.alert("Please enter your address");  add1.focus();  return false;  }  if(phone.value=="")  {  window.alert("Please enter your mobile number");  phone.focus();  return false;  }  if(password.value=="")  {  window.alert("Please enter your password");  password.focus();  return false;  }  <!-- indexOf returns the position of first occurence of a specified string-->  <!-- if search fails it returns a -1 -->  if(email.value.indexOf('@',0)<0)  {  window.alert("Please enter a valid email");  email.focus();  return false;  }  if(email.value.indexOf('.',0)<0)  {  window.alert("Please enter a valid email");  email.focus();  return false;  }  if(sub.selectedIndex<1)  {  window.alert("Please enter your course");  sub.focus();  return false;  }  if(document.getElementById("r1").checked)  {  var x=document.getElementById("r1").value;  }  else  {  var x=document.getElementById("r2").value;  }  if(document.getElementById("c1").checked==true)  {  var y=document.getElementById("c1").value;  }  else  {  var y=" ";  }  if(document.getElementById("c2").checked==true)  {  var y1=document.getElementById("c2").value;  }  else  {  var y1=" ";  }  if(document.getElementById("c3").checked==true)  {  var y2=document.getElementById("c3").value;  }  else  {  var y2=" ";  }  var yy=y+y1+y2;  document.writeln("Your details are : "+"<br>");  document.writeln("Name : "+stname.value+"<br>");  document.writeln("sex is : "+x + "<br>");  document.writeln("email : "+email.value+"<br>");  document.writeln("mobile no : "+phone.value+"<br>");  document.writeln("Course : "+sub.value+"<br>");  document.writeln("Address : "+add1.value+"<br>");  document.writeln("your hobies are : " +yy);  }  </script>  </head>  <body>  <h1>Registration Form</h1>  <form name="regform" onsubmit="return formcheck()" method="post">  <p> Name: <input type="text" name="Name"></p><br>  <p> SEX : <input type="radio" id="r1" name="sex" value="male">Male  <input type="radio" id="r2" name="sex" value="female">Female</p><br>  <p> Address: <input type="text" name="address"></p><br>  <p> Email: <input type="text" name="Email"></p><br>  <p> Password: <input type="text" name="pass"></p><br>  <p> mobile: <input type="text" name="mphone"></p><br>  <p> select your course  <select type="text" value="" name="subject">  <option> -- </option>  <option> BCA </option>  <option> BSC </option>  <option> B.Com </option>  </select>  </p> <br>  <input type="checkbox" name="hobby" id="c1" value="cricket">cricket  <input type="checkbox" name="hobby" id="c2" value="reading">reading  <input type="checkbox" name="hobby" id="c3" value="TV">TV  <p><input type="submit" value="send" name="submit">  <input type="reset" value="Reset" name="Reset">  </p>  </form>  </body>  </html> |

Output





**Ex No : 15**

Estimating Your Taxes with JavaScript

|  |
| --- |
| <html>  <head>  <script language="javascript">  function formcheck()  {  var tsalary=document.forms["itform"]["tsalary"].value;  var hloan=document.forms["itform"]["hloan"].value;  var ptax=document.forms["itform"]["ptax"].value;  var sav\_amount=document.forms["itform"]["sav\_amount"].value;  var a = tsalary-hloan-ptax-sav\_amount;  var caltax=a\*.20;  var itax=document.forms["itform"]["itax"].value;  var tobepaid=caltax-itax;  document.writeln("Your details are : "+"<br>");  document.writeln("total salary : "+tsalary+"<br>");  document.writeln("housing loan : "+hloan+"<br>");  document.writeln("professional tax : "+ptax+"<br>");  document.writeln("savings amount : "+sav\_amount+"<br>");  document.writeln("you have to pay : "+caltax+"<br>");  document.writeln("income tax so far paid : "+itax+"<br>");  document.writeln("the remaining amount to be paid as income tax:"+tobepaid);  }  </script>  </head>  <body>  <h1>Income Tax calculation</h1>  <form name="itform" onsubmit="return formcheck()" method="post">  <p> Name: <input type="text" name="Name"></p><br>  <p> total salary: <input type="text" name="tsalary"></p><br>  <p> less housing loan interest (upto 2,00,000 lakhs only <input type="text" name="hloan"></p><br>  <p> less professional tax: <input type="text" name="ptax"></p><br>  <p> less savings upto (1,50,000 only): <input type="text" name="sav\_amount"></p><br>  <p> IT so far deducted (add cess also): <input type="text" name="itax"></p><br>  <br>  <p><input type="submit" value="send" name="submit">  <input type="reset" value="Reset" name="Reset">  </p>  </form>  </body>  </html> |

