

## **Java Script :**

HTML pages which we have discussed so far are considered as **static** HTML pages, these pages layout remains same. But , if you want to create the **dynamic** page , with the programming support then you have to make use of the scripting languages.

Scripting languages are not the complete programming languages then work within the HTML code.

The Scripting Language in the market are **VBScript, Javascript** etc..

The Scripting code is written in the **<script>** tag , and the general form is ,

```
<script language="JavaScript/VBScript">  
    Body of the code  
</script>
```

### Displaying the Information Using JavaScript Code

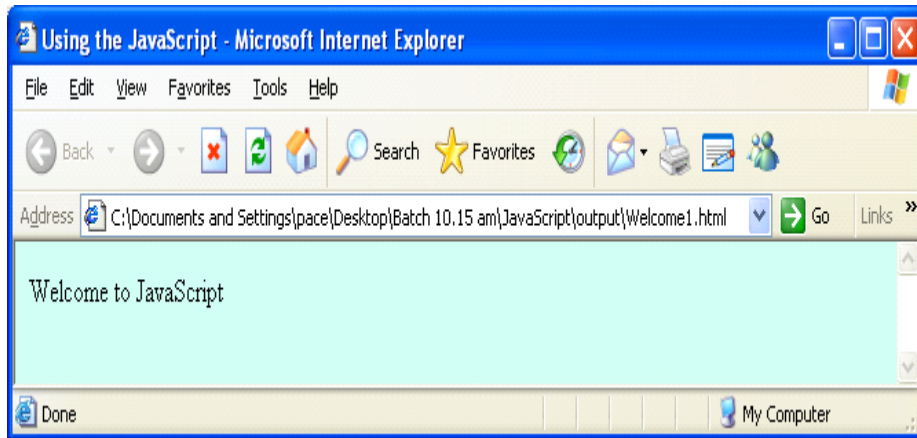
#### (a) **document.write()**

The document object is used to identify the webpage and it provides the method or the function known as write() to display the information on the browser windows.

**Note : JavaScript is case sensitive.**

Consider the following code ,

```
<html>  
<head>  
<title>Using the JavaScript </title>  
</head>  
<body bgcolor="#ccffee">  
<script language="JavaScript">  
    document.write("Welcome to JavaScript");  
</script>  
</body>  
</html>  
output :
```



(b) alert()

This function will display a dialog box on the screen, via which we can display the information on the screen.

The general form is ,

```
alert("message");
```

Consider the following code ,

```
<html>
<head>
<title>Using the JavaScript </title>
</head>
<body bgcolor="#cffee">
<script language="JavaScript">
    alert("Welcome to JavaScript");
</script>
</body>
</html>
```

output :



Tuesday, July 11, 2006

### Declaring the variables:

To declare the variable we will use the var keyword.

The general form is ,  
var variablelist;

Note that the var type variable is capable of holding any type of value.

### Reading the Information from the User :

prompt( ) :  
This function is used to read the information from the user.

The general form is ,  
prompt("message");

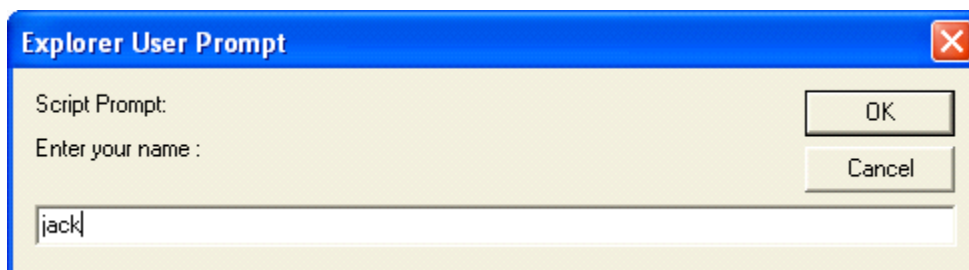
Consider the following code ,

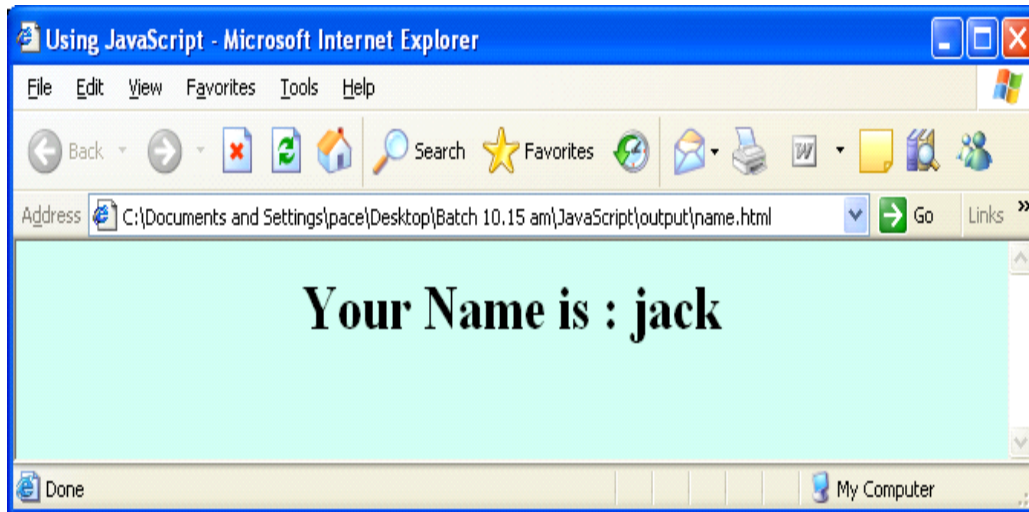
```
<html>
<head>
<title>Using JavaScript</title>
</head>
<body bgcolor="#ccffee">
<script language="JavaScript">
    var sname;

    sname=prompt("Enter your name :");

    document.write("<center><h1>Your Name is : "+sname+" </h1></center>");
</script>
</body>
</html>
```

output :





Note : Whatever you enter or input using the prompt( ) will be considered as a **string**.

**parseInt() :**

This function is used to convert the string into integer.

Q Write a JavaScript code to add two numbers.

```
<html>
<head>
<title>Using JavaScript</title>
</head>
<body bgcolor="#ccffee">
<script language="JavaScript">
    var a,b,c;

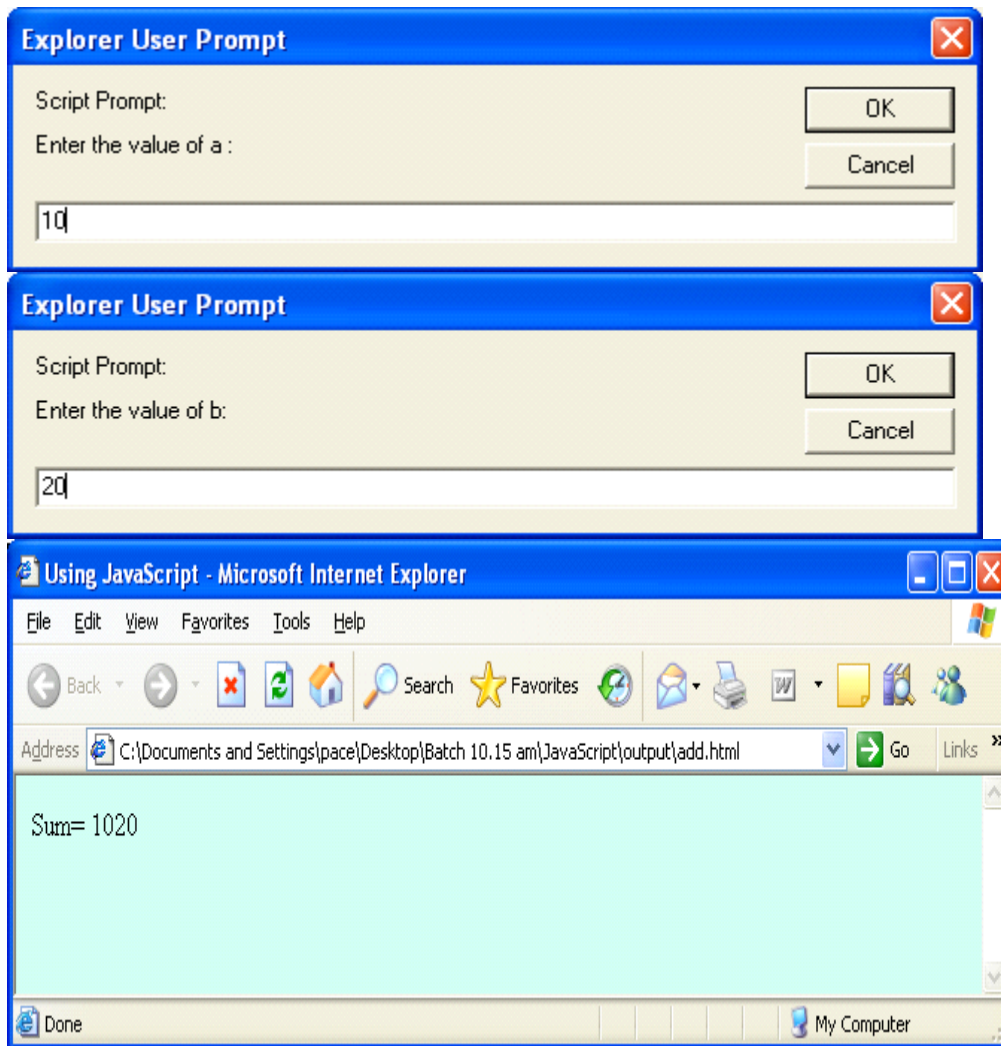
    a=prompt("Enter the value of a :");

    b=prompt("Enter the value of b:");

    c=a+b;

    document.write("Sum= " + c);
</script>
</body>
</html>
```

output :



Now, consider the following program,

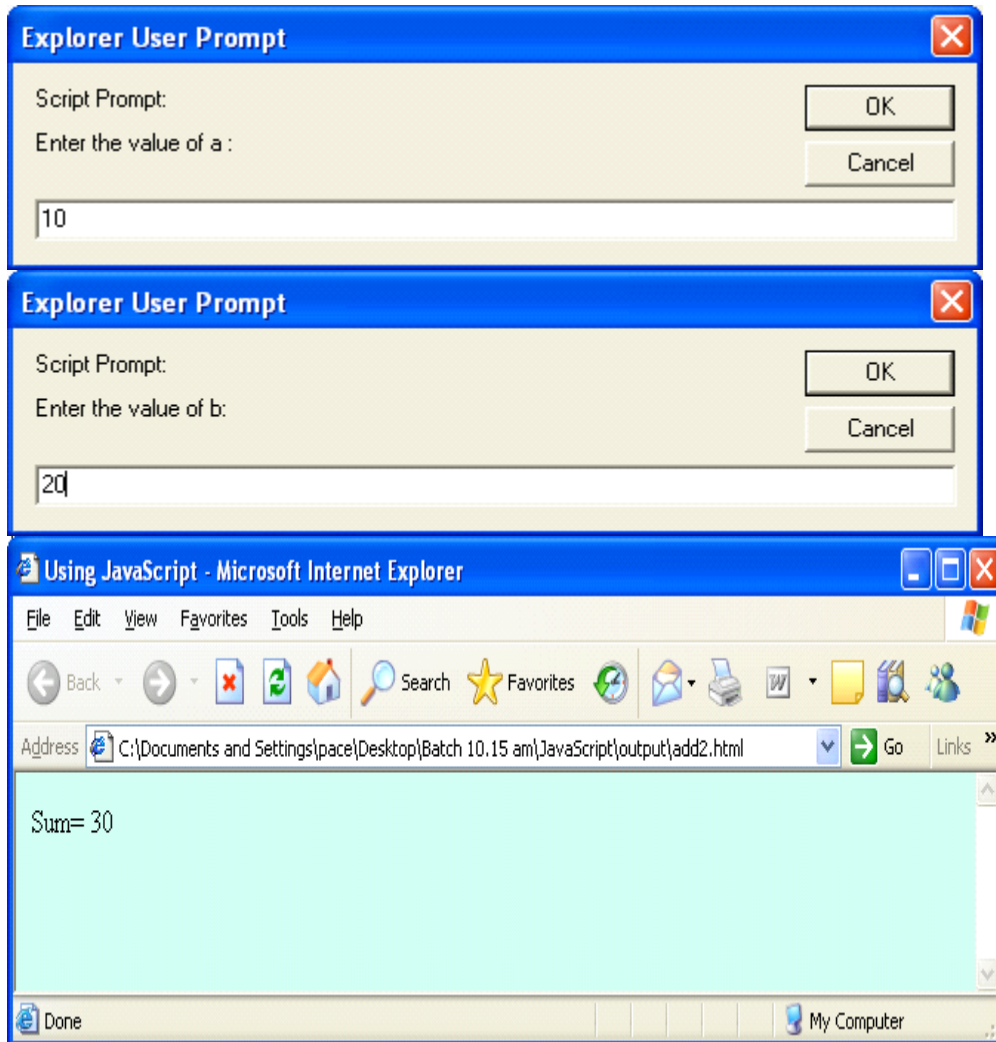
```
<html>
<head>
<title>Using JavaScript</title>
</head>
<body bgcolor="#ccffee">
<script language="JavaScript">
    var a,b,c;

    a=prompt("Enter the value of a :");

    b=prompt("Enter the value of b:");

    a=parseInt(a);
```

```
b=parseInt(b);  
c=a+b;  
document.write("Sum= " + c);  
</script>  
</body>  
</html>
```



Using conditional statements :

The general form is ,

```
if(condition)  
    statement1;  
else
```

statement2;

where,statement1 will get executed when the condition is true and the statment2 will get executed when the condition is false.

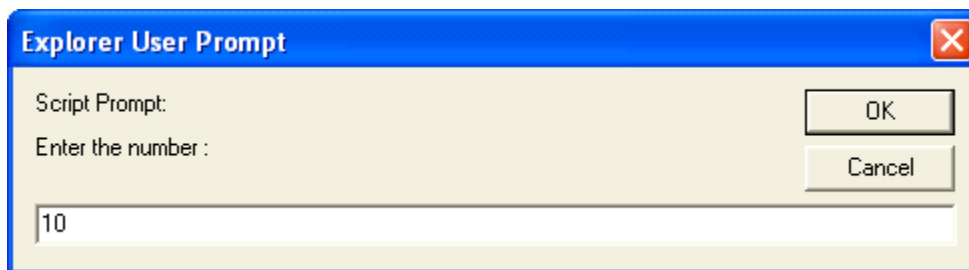
Q. Write a javascript code to check whether the number is even or odd.

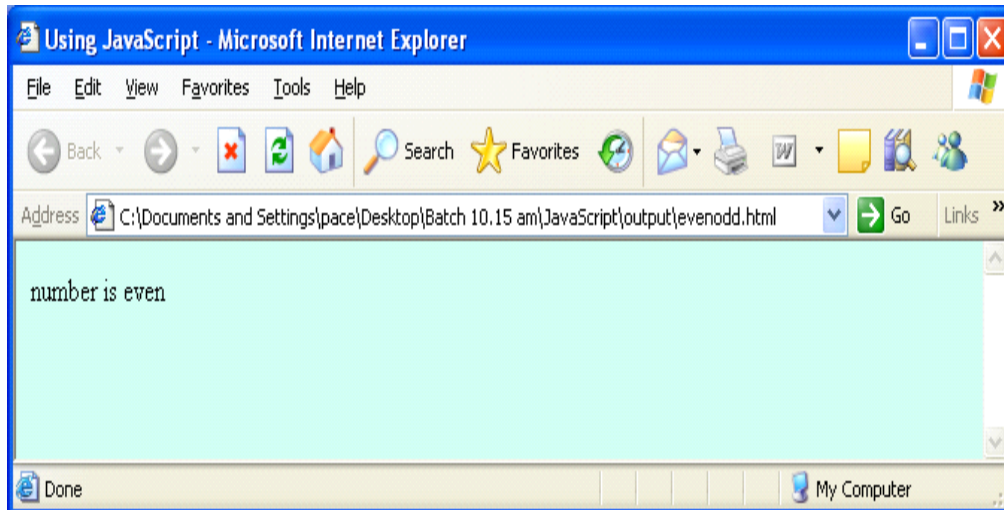
```
<html>
<head>
<title>Using JavaScript</title>
</head>
<body bgcolor="#ccffee">
<script language="JavaScript">
    var num;

    num=prompt("Enter the number :");

    num=parseInt(num);

    if(num%2==0)
        document.write("number is even");
    else
        document.write("number is odd");
</script>
</body>
</html>
output :
```





Q Write a javascript code to find the largest of three numbers.

```
<html>
<head>
<title>Using JavaScript</title>
</head>
<body bgcolor="#ccffee">
<script language="JavaScript">
    var a,b,c;

    a=prompt("Enter the value of a :");

    b=prompt("Enter the value of b:");

    c=prompt("Enter the value of c:");

    a=parseInt(a);

    b=parseInt(b);

    c=parseInt(c);

    if(a>b)
        if(a>c)
            document.write("a is largest");
        else
            document.write("c is largest");
    else
        if(b>c)
            document.write("b is largest");
        else
            document.write("c is largest");
```



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

Wednesday, July 12, 2006

Loops :

The term Loops refers to executing a statement or a group of statement till the specified condition is true.

(i) for loop :

The general form is ,

```
for(initialise the variable;condition;increment/decrement)
{
    body of loop
}
```

Consider the following :

n=4

```
1
12
123
1234
```

```
<html>
<head>
<title>Using JavaScript</title>
</head>
<body bgcolor="#ccffee">
<script language="JavaScript">
    var i,j,n;

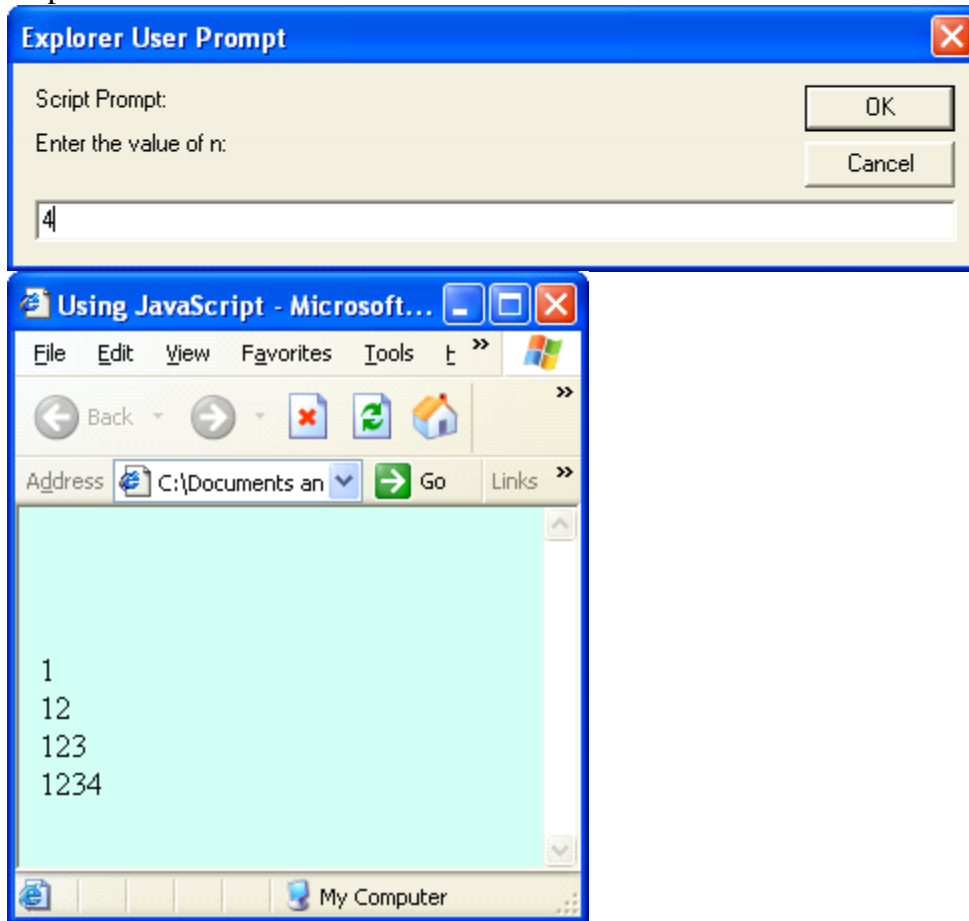
    n=prompt("Enter the value of n:");

    document.write("<br><br><br>");

    for(i=1;i<=n;i++)
    {
        for(j=1;j<=i;j++)
        {
            document.write(j);
```

```
    }  
    document.write("<br>");  
}  
</script>  
</body>  
</html>
```

output :



(ii) while loop

```
/*initialise the variable*/  
  
while(condition)/*test the condition*/  
{  
    /*body of the loop*/  
  
    /*increment or decrement the variable*/  
}
```

```
<html>
<head>
<title>Using JavaScript</title>
</head>
<body bgcolor="#ccffee">
<script language="JavaScript">
    var num,rev;

    num=prompt("Enter the number :");

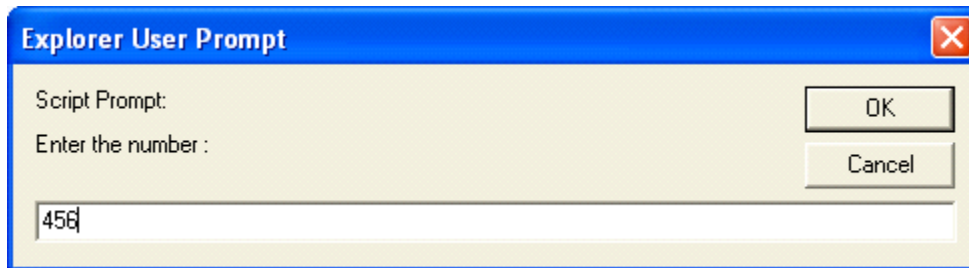
    document.write("<br><br><br>");

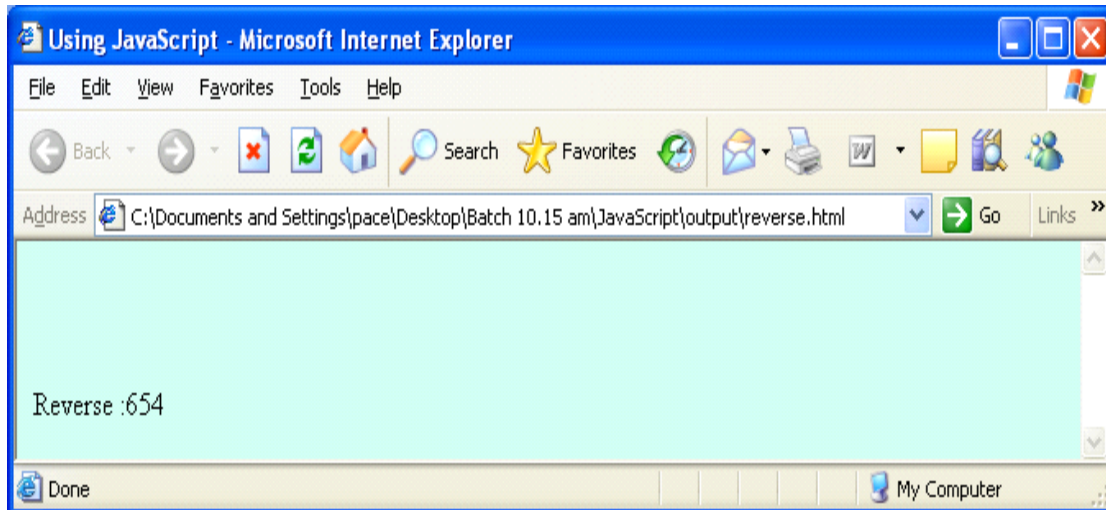
    rev=0;

    while(num!=0)
    {
        rev=rev*10+num%10;

        num=parseInt(num/10);
    }
    document.write("Reverse :"+rev);

</script>
</body>
</html>
output :
```





(iii) do...while loop

The general form is ,

```
/*initialise the variable*/  
  
do  
{  
    /*body of the loop*/  
  
    /*increment or decrement the variable*/  
  
}while(condition);
```

```
<html>  
<head>  
<title>Using JavaScript</title>  
</head>  
<body bgcolor="#ccffee">  
<script language="JavaScript">  
    var num,sum,org;  
  
    num=prompt("Enter the number :");  
  
    num=parseInt(num);  
  
    org=num;  
  
    document.write("<br><br><br>");  
  
    sum=0;  
  
    do
```

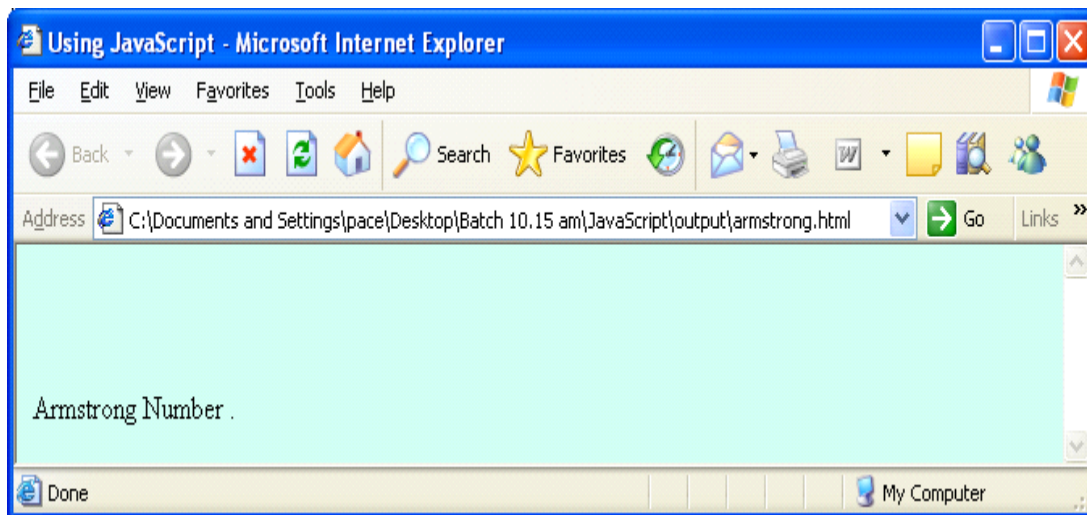
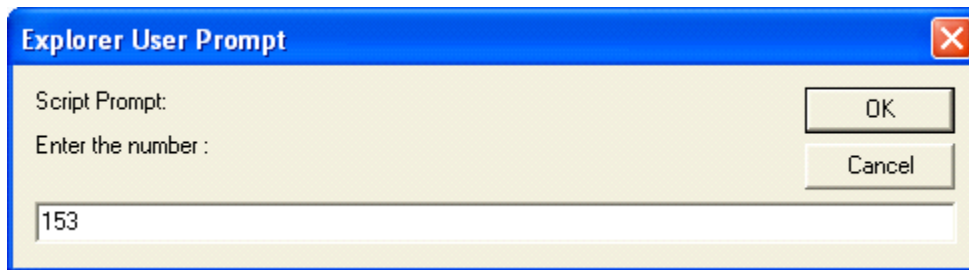
```
{
    sum=sum+(num% 10)*(num% 10)*(num% 10);

    num=parseInt(num/10);

}while(num!=0);

if(sum==org)
    document.write("Armstrong Number .");
else
    document.write("Not an armstrong number.");
</script>
</body>
</html>
```

output :



Defining functions in JavaScript :

The general form is,

```
function functionname(argument list)
{
```

```
        body of the function
    }
```

Consider the following program ,

(i) When the function will return a value

```
<html>
<head>
<title>Using JavaScript</title>
<script language="JavaScript">
    function factorial(num)
    {
        var fact,i;

        fact=1;

        for(i=1;i<=num;i++)
            fact=fact*i;
        return fact;
    }
</script>
</head>
<body bgcolor="#ccffee">
<script language="JavaScript">
    var num,fact;

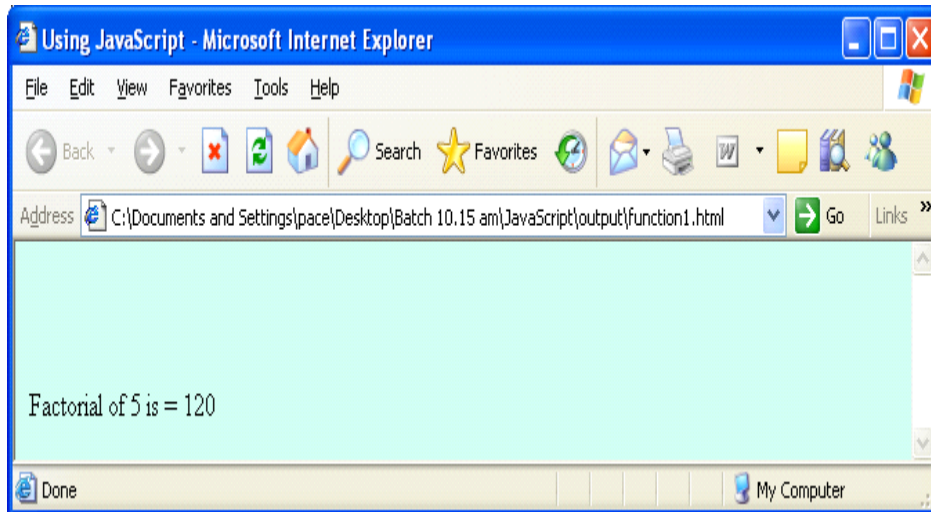
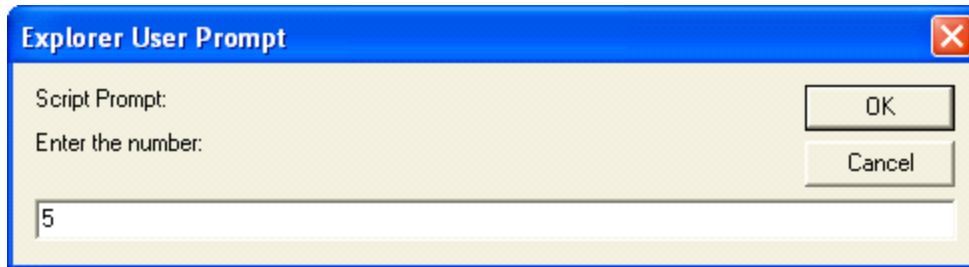
    num=prompt("Enter the number:");

    document.write("<br><br><br>");

    fact=factorial(num);

    document.write("Factorial of " + num + " is = " + fact);
</script>
</body>
</html>
```

output :



(ii) When the function will not return a value

```
<html>
<head>
<title>Using JavaScript</title>
<script language="JavaScript">
    function factorial(num)
    {
        var fact,i;

        fact=1;

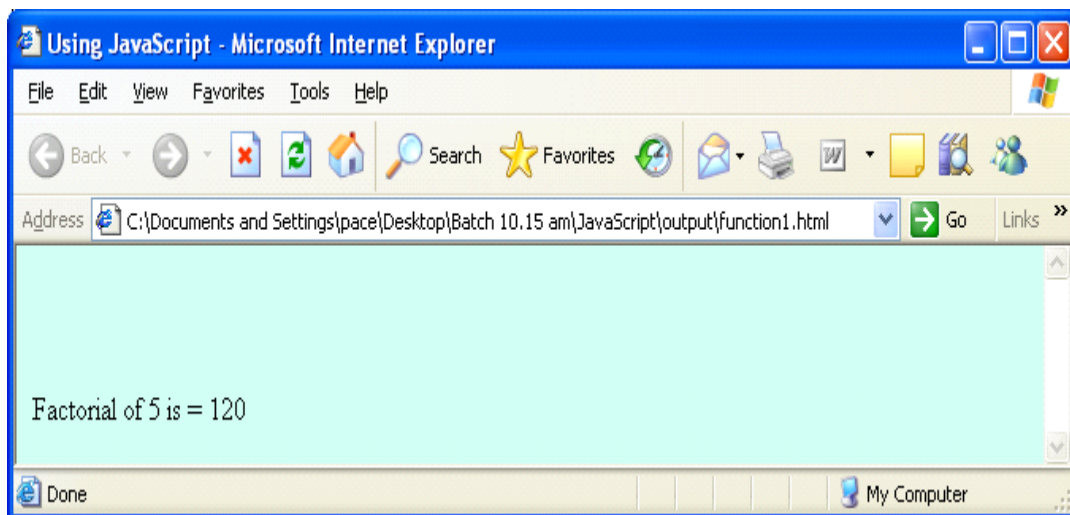
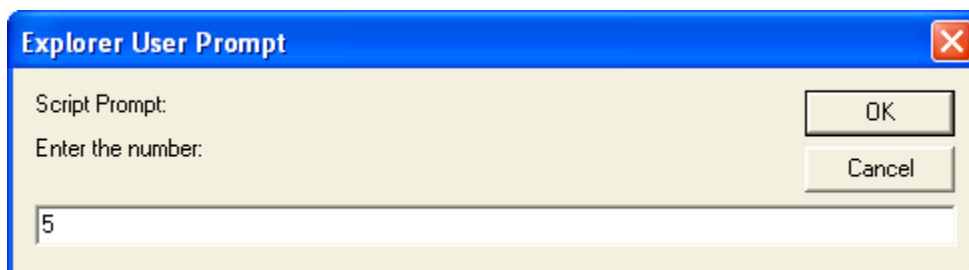
        for(i=1;i<=num;i++)
            fact=fact*i;

        document.write("Factorial of " + num + " is = " + fact);

    }
</script>
</head>
<body bgcolor="#ccffee">
<script language="JavaScript">
    var num;
```

```
num=prompt("Enter the number:");  
  
document.write("<br><br><br>");  
  
factorial(num);  
  
</script>  
</body>  
</html>
```

output :



Thursday, July 13, 2006

### **Event Handling :**

Events as we know are the actions performed by the computer system or the user.

In case of the event handling , we have ,

- (a) Type of event which is to be raised.
- (b) Code which is to be executed when the event is raised.



### (a) Type of Events

There are various events which we can handle.

(i) onLoad() :

This will occur when we load the body or other tag.

(ii) onClick() :

This will occur when we click on the item.

(iii) onDbIcIck():

This will occur when we double click the item.

(iv) onFocus() :

This will occur when the control receive the focus.

(v) onBlur() :

This will occur when the control will lost the focus.

(vi) onMouseOver()

This will occur when we place the mouse over an object.

(vii) onMouseOut()

This will occur when we move the mouse out of an object.

etc....

### (b) Code which is to be executed when the event is raised.

Here , we have to write a function which is to be executed when a particular event is raised.

Question : Design the JavaScript code to display the dialog box when the page is loaded in the memory.

```
<html>
<head>
<title>Using Event Handling</title>
```

```

<script language="JavaScript">
function wel( )
{
    alert("Welcome to JavaScript Event Handling");
}
</script>
</head>
<body onLoad="wel( )" bgcolor="red">
</body>
</html>

```

output :



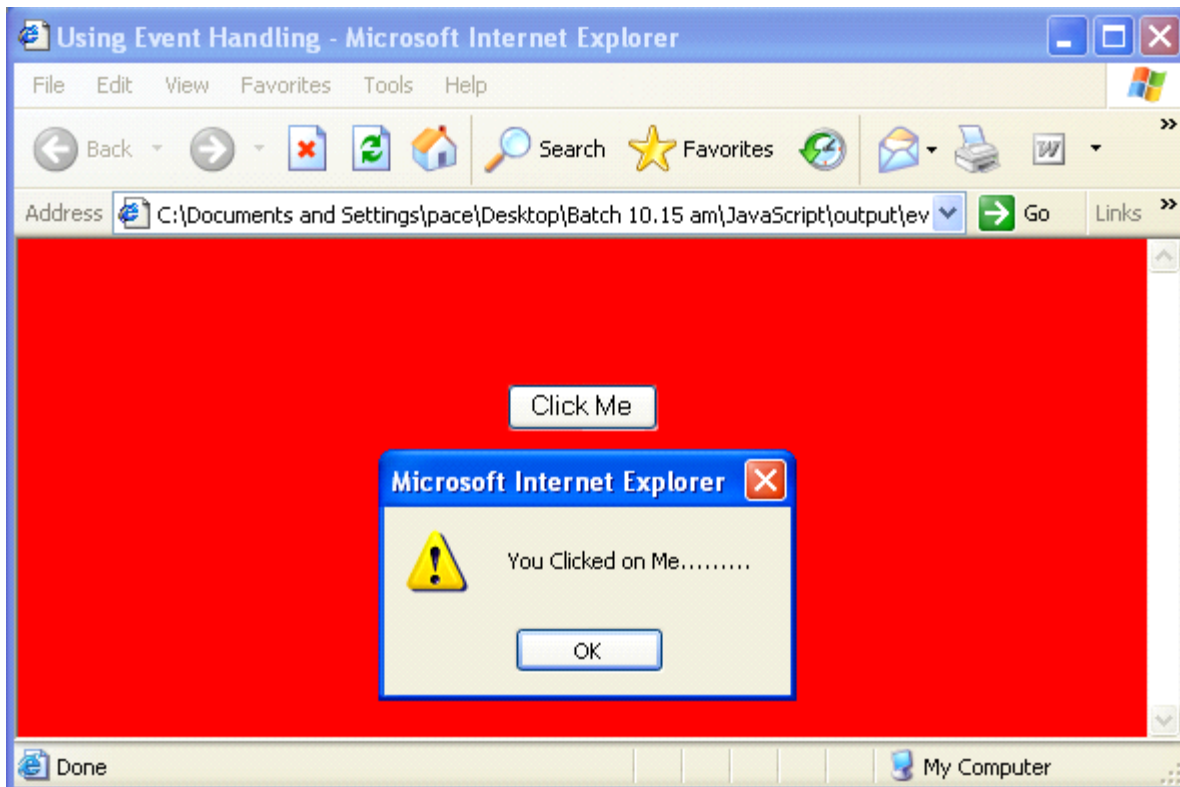
Q Design the JavaScript code to create the button and when the user click on it a message is displayed.

```

<html>
<head>
<title>Using Event Handling</title>
<script language="JavaScript">
function msg( )
{
    alert("You Clicked on Me.....");
}
</script>
</head>
<body bgcolor="red">
    <br>
    <br>
    <br>
    <center>
    <form name="myform">
        <input type="button" name="cmdbutton" value="Click Me" onClick="msg( )" >
    </form>
    </center>
</body>
</html>

```

output :



Q Design the JavaScript code , for creating the application which contains , three buttons, Red , Green and Blue to change the background color accordingly.

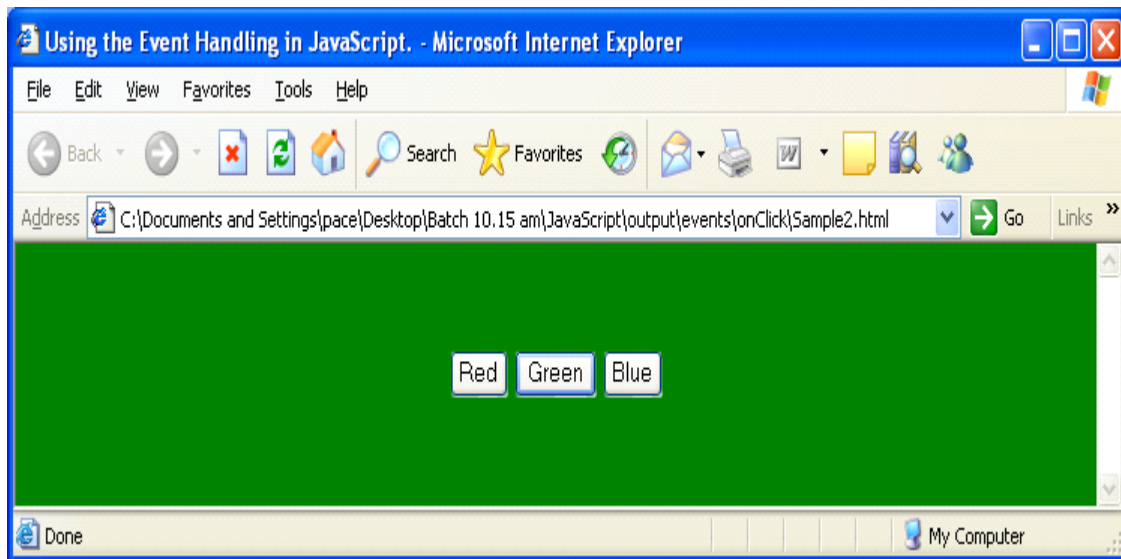
```
<html>
<head>
<title>Using the Event Handling in JavaScript.</title>
<script language="JavaScript">
function changeRed( )
{
    document.bgColor="red";
}
function changeGreen( )
{
    document.bgColor="green";
}
function changeBlue( )
{
    document.bgColor="blue";
}
</script>
</head>
<body bgcolor="#ccddee">
```

```

<center>
<br>
<br>
<form name="myform">
<input type="button" name="cmdred" onClick="changeRed( )" value="Red">
<input type="button" name="cmdgree" onClick="changeGreen( )" value="Green">
<input type="button" name="cmdblue" onClick="changeBlue( )" value="Blue">
</form>
</center>
</body>
</html>

```

output :



Q Design the application to access the value of the text box

```

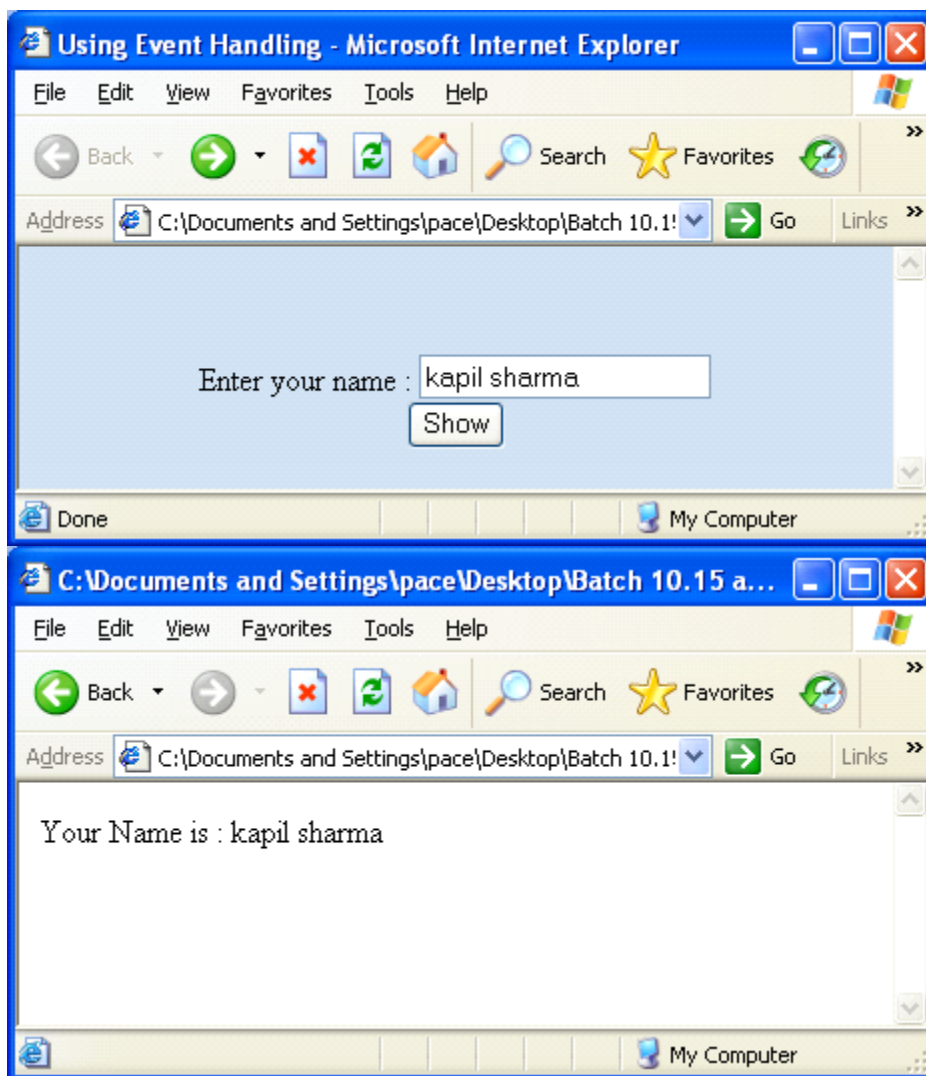
<html>
<head>
<title>Using Event Handling</title>
<script language="JavaScript">
function show( )
{
    var sname;

    sname=document.myform.txtname.value;

    document.write("Your Name is : " + sname);
}
</script>
</head>

```

```
<body bgcolor="#ccdde" >
<center>
<br>
<br>
<form name="myform">
Enter your name : <input type="text" name="txtname">
<br>
<input type="button" name="cmdshow" value="Show" onClick="show()">
</form>
</center>
</body>
</html>
```



Q Design the application to apply the following validation on the user name .

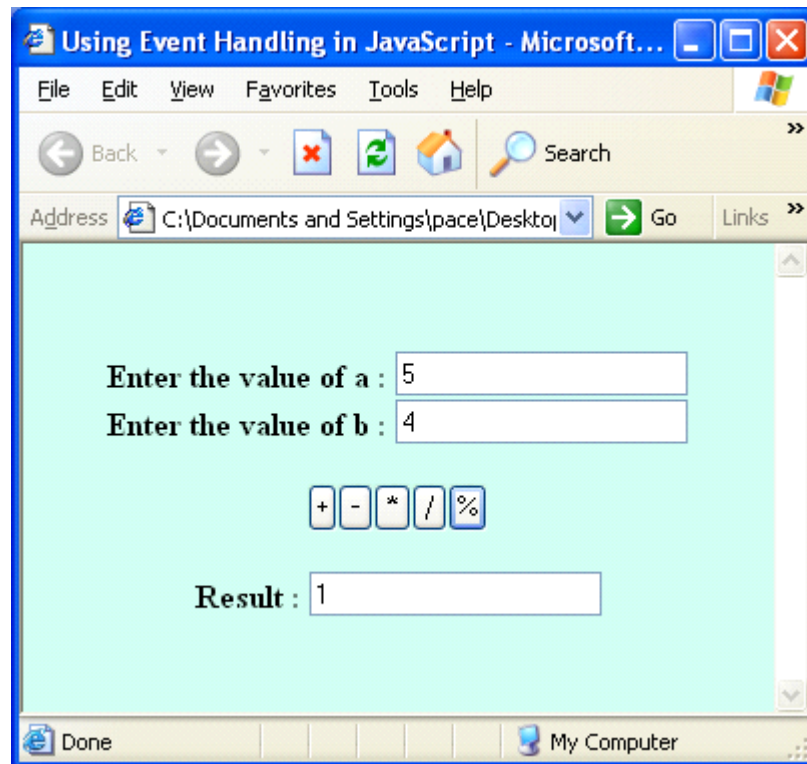
\* The user name should be atleast 6 characters long

\* Must start with an alphabet

\* contains alphabet ,digits or underscore.

\*\*\*\*\*

Q Design the application which contains three textboxes for two number and a result , and perform +,-,\*,/ and %.



```
<html>
<head>
<title>Using Event Handling in JavaScript</title>
<script language="JavaScript">
```

```
function add( )
{
  var a,b,c;

  a=document.myform.txta.value;
  b=document.myform.txtb.value;

  a=parseInt(a);
  b=parseInt(b);

  c=a+b;
```

```
document.myform.txtc.value=c;
}
function subtract( )
{
    var a,b,c;

    a=document.myform.txta.value;
    b=document.myform.txtb.value;

    a=parseInt(a);
    b=parseInt(b);

    c=a-b;
```

```
document.myform.txtc.value=c;
}
function multiply( )
{
    var a,b,c;

    a=document.myform.txta.value;
    b=document.myform.txtb.value;

    a=parseInt(a);
    b=parseInt(b);

    c=a*b;
```

```
document.myform.txtc.value=c;
}
function divide( )
{
    var a,b,c;

    a=document.myform.txta.value;
    b=document.myform.txtb.value;

    a=parseInt(a);
    b=parseInt(b);

    c=a/b;
```

```
document.myform.txtc.value=c;
}

function mod( )
```

```

{
  var a,b,c;

  a=document.myform.txta.value;
  b=document.myform.txtb.value;

  a=parseInt(a);
  b=parseInt(b);

  c=a%b;

  document.myform.txtc.value=c;
}
</script>
</head>
<body bgcolor="#ccffee">
<center>
<br>
<br>
<form name="myform">
<b> Enter the value of a : </b><input type="text" name="txta"><br>
<b> Enter the value of b : </b><input type="text" name="txtb"><br>
<br>
<input type="button" name="cmdplus" value="+" onClick="add( )"><input type="button"
name="cmdminus" value="-" onClick="subtract( )"><input type="button" name="cmdmult"
value="*" onClick="multiply( )"><input type="button" name="cmddiv" value="/"
onClick="divide( )"><input type="button" name="cmdmod" value="%" onClick="mod( )"><br>
<br>
<b> Result : </b><input type="text" name="txtc">
<br>
</form>
</center>
</body>
</html>

```

**Saturday, July 15, 2006**

Arrays : An array is the collection of elements. In JavaScript we can declare the array by,

```
arrayname=new Array(size of array);
```

e.g.

```
x=new Array(5);
```

Consider the following code,

```
<html>
```



```
<head>
<title>Using JavaScript</title>
</head>
<body bgcolor="#ccdde" >
<script language="JavaScript">

    x=new Array(5);

    x[0]=10;
    x[1]=12;
    x[2]=13;
    x[3]=14;
    x[4]=16;

    var i;

    for(i=0;i<5;i++)
    {
        document.write(x[i]+"<br>");
    }

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

