**Jscript**

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

document.write("<h2>Welcome to Java Script</h2>");

</script>

</html>

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

a =10;

name = "james";

document.write("<h2>value of a = " + a + "</h2>");

document.write("<h2 style='color:red'>Name = " + name + "</h2>");

</script>

</html>

Sum of two int:

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

a =10;

b = "20";

sum = parseInt(a) + parseInt(b)

document.write("<h2>Sum of a & b is = " + sum + "</h2>");

</script>

</html>

Condition statement:

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

val = -5;

x = val;

**if**(val < 0)

val \*= -1;

document.write("<h3>Absolute value is " +val + "</h3>")

**if**(x % 2 == 0)

document.write("<h3> the number is even.</h3>");

**else**

document.write("<h3> the number is odd.</h3>");

currentYear = 2019;

**if**(currentYear % 400 == 0 || (currentYear%4 == 0 && currentYear% 100 != 0))

document.write("<h3> the Year is leap year.</h3>");

**else**

document.write("<h3> the Year is not leap year.</h3>");

</script>

</html>

Loops :

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

document.write("<h3>Loop Demonstration</h3>");

a = 1;

**while**(a <= 10){

document.write("<h3>"+a+"</h3>");

a++;

}

total = 0;

**for**(x =1; x<=10; x++)

total += x;

document.write("<h3>Total = " +total + "</h3>");

</script>

</html>

Alert, prompt and confirm display :

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

document.write("<h3>Loop Demonstration</h3>");

t1 = prompt("Enter any number: ")

num = parseInt(t1);

a = 1;

**while**(a <= 10){

document.write("<h3>"+a+"</h3>");

a++;

}

total = 0;

**for**(x =1; x<=num; x++)

total += x;

document.write("<h3>Total = " +total + "</h3>");

alert(total);

confirmation = confirm("Are you sure?" );

document.write("<h3>" +confirmation+ "</h3>" )

</script>

</html>

Operators

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

str = prompt("Enter some text");

document.write("<h3>"+str.length+"</h3>");

document.write("<h3>"+str.bold()+"</h3>");

document.write("<h3>"+str.big()+"</h3>");

document.write("<h3>"+str.small()+"</h3>");

document.write("<h3>"+str.italics()+"</h3>");

document.write("Hello"+str.sup()+"<br/>");

document.write("Hello"+str.sub()+"<br/>");

document.write(str.fontcolor("Blue")+"<br/>");

document.write(str.fontsize(15)+"<br/>");

document.write(str.strike()+"<br/>");

document.write(str.toUpperCase()+"<br/>");

</script>

</html>

Array :

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

cars = **new** Array("honda city","BMW", "Audi");

len = cars.length;

**for**(i=0; i<len; i++)

document.write("<h3>"+cars[i]+"</h3>");

bikes = ["Royal Enfield", "Pulsar", "Honda"];

**for** (i **in** bikes)

document.write("<h3>" +bikes[i]+ "</h3>");

</script>

</html>

Array with possible operators :

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

cars = **new** Array("honda city","BMW", "Audi");

len = cars.length;

**for**(i=0; i<len; i++)

document.write("<h3>"+cars[i]+"</h3>");

bikes = ["Royal Enfield", "Pulsar", "Honda"];

**for** (i **in** bikes)

document.write("<h3>" +bikes[i]+ "</h3>");

document.write("<h3>" +cars.join()+ "</h3>");

document.write("<h3>" +cars.join("-")+ "</h3>");

document.write("<h3>" +bikes.sort()+ "</h3>");

document.write("<h3>" +bikes.reverse()+ "</h3>");

document.write("<h3>" +bikes.concat(cars.sort())+ "</h3>");

</script>

</html>

**Date :**

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

today = **new** Date();

months = ["January", "February", "March", "April", "May", "June", "July", "August", "September", "October", "November", "December"];

document.write("<h3>" +today+ "</h3>");

document.write("<h3>" +today.getFullYear()+ "</h3>");

document.write("<h3>" +today.getMonth()+ "</h3>");

document.write("<h3> Current Month: " +months[today.getMonth()]+ "</h3>");

document.write("<h3>" +today.getDay()+ "</h3>");

document.write("<h3>" +today.getDate()+ "</h3>");

document.write("<h3>" +today.getTime()/(1000\*60\*60\*24\*365)+ "</h3>");

xmas = **new** Date(2019,11,25,0,0,0); // Customized Date

document.write("<h3>Christmas is on "+xmas.getDate()+ " " +months[xmas.getMonth()]+ "</h3>");

firstDay = **new** Date("January 01, 2020 00:00:00");

document.write("<h3>" +firstDay+ "</h3>");

</script>

</html>

**Math Object:**

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

document.write("<h3>25 square root is " +Math.sqrt(25)+ "</h3>");

document.write("<h3>Square of seven is " +Math.pow(7,2)+ "</h3>");

document.write("<h3>Minimum number is " +Math.min(7,2,55,33,100)+ "</h3>");

document.write("<h3>Minimum number is " +Math.max(7,2,55,33,100)+ "</h3>");

document.write("<h3>Minimum number is " +Math.sin(30\*Math.PI/180)+ "</h3>");

randomnumber = document.write("<h3>Random value is " + Math.round(Math.random()\* 1000) + "</h3>");

</script>

</html>

Function:

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

**function** sayGreeting() {

alert("Welcome Dipti")

}

sayGreeting();

</script>

</html>

**Parameterised Function:**

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

**function** sayGreeting(msg,name) {

alert(msg+ " " +name);

}

sayGreeting("Hello", "Dipti");

</script>

</html>

**Function with return value**

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

**function** sayGreeting(msg,name) {

**return** msg+ " " +name;

}

grMessage = sayGreeting("Welcome", "Dipti");

alert(grMessage);

</script>

</html>

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

**var** f1 = **function**(){

**return** **function**(){

**return** 100;

}

}

**function** accept(myFunction){

**var** num = myFunction();

**return** num;

}

x =f1();

alert(f1);

y = accept(x);

alert(y);

</script>

</html>

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

**var** add = (**function**(){

**var** c = 0;

**return** **function**(){

c++;

**return** c;

}

})();

alert(add());

alert(add());

alert(add());

</script>

</html>

User Defined Objects : Name Value pair.

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

emp = {

empNo : 1001,

ename : "Sachin",

isPermanent : **false**,

salary : 10000.33

}

alert(emp.empNo)

**function** getAnnualSalary(empobj){

**return** empobj.salary \* 12;

}

annSal = getAnnualSalary(emp);

alert(annSal);

jobstatus = emp.isPermanent;

**if**(jobstatus)

alert(emp.ename + "is on permanent payroll.")

**else**

alert(emp.ename + "is on contract payroll.")

</script>

</html>

**Ways to create object in JavaScipt:**

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

**var** obj = {};

**var** obj1 = **new** Object();

**var** obj2 = Object.create({fname : "Dipti"});

obj1.company = "Company";

alert(obj2.fname)

</script>

</html>

**Object may also contains functions in place of value.**

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

emp = {

empNo : 1001,

ename : "Sachin",

isPermanent : **false**,

salary : 10000.33,

getAnnualSalary : **function**(){

**return** **this**.salary \* 12;

},

// Object contains function.

showEmp : **function**(){

alert(**this**.empNo+ " " + **this**.ename);

}

}

annSal = emp.getAnnualSalary();

alert(annSal);

emp.showEmp();

</script>

</html>

**Nested Objects :**

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

emp = {

empNo : 1001,

ename : "Sachin",

isPermanent : **false**,

salary : 10000.33,

getAnnualSalary : **function**(){

**return** **this**.salary \* 12;

},

showEmp : **function**(){

alert(**this**.empNo+ " " + **this**.ename);

},

// Nested Object.

projectDetails: {title : "Inventory control system",

duration : 24

}

}

document.write("<h3>" +emp.projectDetails.title + "</h3>")

</script>

</html>

**Object holding array values**

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

emp = {

empNo : 1001,

ename : "Sachin",

certifications: ["OCJP", "SCM", "CMAP", "CAST"]

}

certs = emp.certifications;

**for**(i **in** certs)

document.write("<h3>" +certs[i]+ "</h3>");

</script>

</html>

**Properties holding array of objects :**

<!DOCTYPE html>

<html>

<script type=*"text/javascript"*>

emp = {

empNo : 1001,

ename : "Sachin",

certifications: [

{title:"OCJP", cost:8500},

{title:"SCM", cost:18500},

{title:"CMAP", cost:9500},

{title:"CAST", cost:7500}

]

}

certs = emp.certifications;

**for**(i **in** certs)

document.write("<h3>" +certs[i].title+ " "+ certs[i].cost+ "</h3>");

</script>

</html>

**Event Handling :**

<!DOCTYPE html>

<html>

<head>

<script type=*"text/javascript"*>

**function** doAdd(){

t1 = document.addForm.n1.value;

t2 = document.addForm.n2.value;

x = parseInt(t1);

y = parseInt(t2);

sum = x + y;

document.addForm.result.value = ""+sum;

}

</script>

</head>

<body bgcolor = *"cyan"*>

<h1>Click event example</h1>

<form name=*"addForm"*>

<pre>

Enter 1st No: <input type =*"text"* name=*"n1"*/>

Enter 2nd No: <input type =*"text"* name=*"n2"*/>

Result: <input type=*"text"* name=*"result"* disabled/>

<input type =*"button"* value=*"ADD"* onclick="doAdd()">

</pre>

</form>

</body>

</html>

**Handling above program with good practices:**

<!DOCTYPE html>

<html>

<head>

<script type=*"text/javascript"*>

**function** doAdd(aForm){

t1 = aForm.n1.value;

t2 = aForm.n2.value;

x = parseInt(t1);

y = parseInt(t2);

sum = x + y;

aForm.result.value = ""+sum;

}

</script>

</head>

<body bgcolor = *"cyan"*>

<h1>Click event example</h1>

<form name=*"addForm"*>

<pre>

Enter 1st No: <input type =*"text"* name=*"n1"*/>

Enter 2nd No: <input type =*"text"* name=*"n2"*/>

Result: <input type=*"text"* name=*"result"* disabled/>

<input type =*"button"* value=*"ADD"* onclick="doAdd(addForm)">

</pre>

</form>

</body>

</html>

**Change Event:**

<!DOCTYPE html>

<html>

<head>

<script type=*"text/javascript"*>

**function** changeBodyBackground(cf){

clr = cf.ColorList.value;

document.bgColor = clr

}

</script>

</head>

<body bgcolor = *"cyan"*>

<h1>Click event example</h1>

<form name=*"colorForm"*>

<pre>

<h3>Choose a color:</h3>

<select name = *"ColorList"* onchange=*"changeBodyBackground(colorForm)"*>

<option></option>

<option value=*"Red"*>Red</option>

<option value=*"Green"*>Green</option>

<option value=*"Yellow"*>Yellow</option>

<option value=*"Blue"*>Blue</option>

<option value=*"Orange"*>Orange</option>

<option value=*"White"*>White</option>

</select>

</pre>

</form>

</body>

</html>

Same as above example , only syntax is change.

<!DOCTYPE html>

<html>

<head>

<script type=*"text/javascript"*>

**function** changeBodyBackground(clrChoice){

clr = clrChoice.value;

**if**(clr == "Select"){

clr = "cyan"

document.bgColor = clr

}

document.bgColor = clr

}

</script>

</head>

<body bgcolor = *"cyan"*>

<h1>Click event example</h1>

<form name=*"colorForm"*>

<pre>

Choose a color:

<select name = *"ColorList"* onchange=*"changeBodyBackground(this)"*>

<option>Select</option>

<option value=*"Red"*>Red</option>

<option value=*"Green"*>Green</option>

<option value=*"Yellow"*>Yellow</option>

<option value=*"Blue"*>Blue</option>

<option value=*"Orange"*>Orange</option>

<option value=*"White"*>White</option>

</select>

</pre>

</form>

</body>

</html>