

## Day 9- JavaScript Worksheet



### Refresh yesterday's Class-10 Minutes

1. Changing the style of an HTML element, which of the followed is true?
  - a) `document.getElementById("demo").fontSize = "25px";`
  - b) `document.getElementById("demo").fontSize = "25px";`
  - c) `document.getElementById("demo").style.fontSize = "25px";`
  - d) `document.getElementById("demo").style.font = "25px";`
2. We can include JavaScript code anywhere in an html document.
  - a) True
  - b) False
3. We can save JavaScript source code in a simple text file with the extension
  - a) .html
  - b) .css
  - c) .java
  - d) .js

### Activity-40 Minutes

- **JavaScript Variables**

```
<html>
<body>
<script>
var x = 10;
var y = 20;
var z=x+y;
document.write(z);
</script>
</body>
</html>
```

### JavaScript local variable

```
<html>
<body>
<script>
function abc()
{
```

```
    var x=10; //local variable
  }
</script>
</body>
</html>
```

#### **OR**

```
<html>
<body>
<script>
  If(10<13)
  {
    var y=20; //JavaScript local variable
  }
</script>
</body>
</html>
```

### **JavaScript global variable**

```
<html>
<body>
<script>
var data=200;//global variable
function a(){
document.writeln(data);
}
function b(){
document.writeln(data);
}
a();//calling JavaScript function
b();

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

- **JavaScript Operators**

- **Arithmetic**
- **Assignment**
- **Comparison**

### **Arithmetic**

#### **Output**

```
a + b = 43
a - b = 23
a / b = 3.3
a % b = 3
a + b + c = 43Test
++a = 35
--b = 8
Set the variables to different values and then try...
```

```
<html>
<body>

<script type="text/javascript">
  <!--
    var a = 33;
    var b = 10;
    var c = "Test";
    var linebreak = "<br />";

    document.write("a + b = ");
    result = a + b;
    document.write(result);
    document.write(linebreak);

    document.write("a - b = ");
    result = a - b;
    document.write(result);
    document.write(linebreak);

    document.write("a / b = ");
    result = a / b;
    document.write(result);
    document.write(linebreak);

    document.write("a % b = ");
    result = a % b;
    document.write(result);
    document.write(linebreak);

    document.write("a + b + c = ");
    result = a + b + c;
    document.write(result);
    document.write(linebreak);

    a = ++a;
    document.write(++a = );
    result = ++a;
```

```

document.write(result);
document.write(linebreak);

b = --b;
document.write("--b = ");
result = --b;
document.write(result);
document.write(linebreak);
//-->
</script>

```

Set the variables to different values and then try...

```

</body>
</html>

```

## Comparison

### Output

```

(a == b) => false
(a < b) => true
(a > b) => false
(a != b) => true
(a >= b) => false
(a <= b) => true

```

Set the variables to different values and different operators and then try...

```

<html>
<body>

<script type="text/javascript">
  <!--
    var a = 10;
    var b = 20;
    var linebreak = "<br />";

    document.write("(a == b) => ");
    result = (a == b);
    document.write(result);
    document.write(linebreak);

    document.write("(a < b) => ");
    result = (a < b);
    document.write(result);
    document.write(linebreak);

    document.write("(a > b) => ");

```

```

    result = (a > b);
    document.write(result);
    document.write(linebreak);

    document.write("(a != b) => ");
    result = (a != b);
    document.write(result);
    document.write(linebreak);

    document.write("(a >= b) => ");
    result = (a >= b);
    document.write(result);
    document.write(linebreak);

    document.write("(a <= b) => ");
    result = (a <= b);
    document.write(result);
    document.write(linebreak);
    //-->
</script>

```

Set the variables to different values and different operators and then try...

```

</body>
</html>

```

## Assignment

### Output

```

Value of a => (a = b) => 10
Value of a => (a += b) => 20
Value of a => (a -= b) => 10
Value of a => (a *= b) => 100
Value of a => (a /= b) => 10
Value of a => (a %= b) => 0

```

Set the variables to different values and different operators and then try...

```

<html>
<body>

<script type="text/javascript">
  <!--
    var a = 33;

```

```

var b = 10;
var linebreak = "<br />";

document.write("Value of a => (a = b) => ");
result = (a = b);
document.write(result);
document.write(linebreak);

document.write("Value of a => (a += b) => ");
result = (a += b);
document.write(result);
document.write(linebreak);

document.write("Value of a => (a -= b) => ");
result = (a -= b);
document.write(result);
document.write(linebreak);

document.write("Value of a => (a *= b) => ");
result = (a *= b);
document.write(result);
document.write(linebreak);

document.write("Value of a => (a /= b) => ");
result = (a /= b);
document.write(result);
document.write(linebreak);

document.write("Value of a => (a %= b) => ");
result = (a %= b);
document.write(result);
document.write(linebreak);
//-->
</script>

<p>Set the variables to different values and different operators and then try...</p>
</body>
</html>

```

## Activity- 1 Hour

### • JavaScript Functions



call function

```

<html>
<body>

```

```
<script>
function msg(){
alert("hello! this is message");
}
</script>
<input type="button" onclick="msg()" value="call function"/>
</body>
</html>
```

- **JavaScript Dates**

**Output**

Current Date and Time: Tue Jul 04 2017 12:12:22 GMT-0700 (Pacific Daylight Time)

```
<html>
<body>
Current Date and Time: <span id="txt"></span>
<script>
var today=new Date();
document.getElementById('txt').innerHTML=today;
</script>
</body>
</html>
```

**JavaScript Current Time**

**Output**

Current Time: 12:15:57

```
<html>

<body>

Current Time: <span id="txt"></span>

<script>

var today=new Date();

var h=today.getHours();

var m=today.getMinutes();

var s=today.getSeconds();

document.getElementById('txt').innerHTML=h+":"+m+": "+s;
```

```
</script>
```

```
</body>
```

```
</html>
```

### **JavaScript Today's date**

#### **Output**

Date is: 4/7/2017

```
<html>
```

```
<body>
```

```
<script>
```

```
var date=new Date();
```

```
var day=date.getDate();
```

```
var month=date.getMonth()+1;
```

```
var year=date.getFullYear();
```

```
document.write("<br>Date is: "+day+"/"+month+"/"+year);
```

```
</script>
```

```
</body>
```

```
</html>
```

### **JavaScript Digital Clock Example**

```
<html>
```

```
<body>
```

```
Current Time: <span id="txt"></span>
```

```
<script>
```

```
window.onload=function(){getTime();}
```

```
function getTime(){
```

```
var today=new Date();
```

```
var h=today.getHours();
```

```
var m=today.getMinutes();
```

```
var s=today.getSeconds();
```

```
// add a zero in front of numbers<10
```

```
m=checkTime(m);
```

```
s=checkTime(s);
```



```
document.getElementById('txt').innerHTML=h+":"+m+":"+s;

setTimeout(function(){getTime()},1000);

}

//setInterval("getTime()",1000);//another way

function checkTime(i){

if (i<10){

i="0" + i;

}

return i;

}

</script>

</body>

</html>
```