

### Script tag

```
<script type="text/javascript">  
    ...  
</script>
```

### Basic

```
// One line comment  
/*  
Mult-line comment  
*/  
function addNum bers(a, b){  
    return a+b;  
}
```

### Button

```
<button onclick="functionName()">click me</button>  
...  
<script>  
    function functionName(){  
        // Write what will happen after button is clicked here  
    }  
</script>
```

### variables

var a;	create new variable
var a = 10;	create a new variable and assign value
var b = " something ";	create a new variable and assign string
var c = [1, 12, 31, 45]	create a new array with 4 elements in it
c[0]	access item 0 (first item) in array c

### output

console.log(a)	Output to browser developer console
document.write(a)	Directly write to end of HTML document
alert(a)	Display popup box with the message
document.getElementById("xxx").innerHTML = a;	Element ID "xxx" content replaced with the message

### Input

var a = prompt ("question", "default");	Popup box ask question, assign value to a
var a = document.getElementById("xxx").value	xxx is a textbox's id, and the value in textbox assigned to a



### Loops

```
// For loop
for(var i=0; i<10; i++){
    doc ume nt.w ri te(i);
}

// For loop printing everything in array (arr)
// method 1
for (var i=0; i< arr.le ngth; i++){
    doc ume nt.w ri te( arr [i]);
}

// method 2
for (var i of arr){
    doc ume nt.w ri te(i);
}

// while loop
// also outputting everything in arr
var i=0;
while (i< arr.le ngth){
    doc ume nt.w ri te( arr [i]);
    i++;
}
```

### conditions

```
// If
if (a>b){
    // a > b
}else if (a==b){
    // do when a equals to b
}else{
    // everything else
}
```

### Logical

a==b	equals
a!=b	not equals
a>=b	a larger than or equals b
a <=b	a smaller than or equals b
&&	Logical and, e.g. (3>1) && (3<10), used in if
	Logical or, e.g. (3>1)    (3<-1), used in if
!	Logical not, e.g. a!=b same as !(a==b)

