

### What is Javascript?:

A scripting language  
Used to implement logic into web and mobile apps  
Syntax similar to C++

### Data Types:

- Boolean
- Null
- Undefined
- Number
- String
- Symbol

Use the 'Var' keyword to declare

```
var x = 10;
```

Data type depends on what value is assigned to it

Use `typeof(variable name)`; to output the data type

### Variables Declaration

```
var x; - undefined  
var x = 10; - number  
x = "Hello World"; - string
```

### Text Output

```
console.log("Hello World"); - outputs  
text to the console  
console.log("Hello World" +  
someVariable + "and Goodbye"); -  
can concatenate output with the '+' operator
```

### If Statements

```
if (x < 10)  
{  
  console.log("Less than 10");  
}  
else  
{  
  console.log("Not less than 10");  
}
```

### Switch Statements

```
switch(x)  
{  
  case 4:  
    console.log("Hello");  
    break;  
  case 5:  
    console.log("Goodbye");  
    break;  
  case 6:  
    console.log(someVariable);  
    break;  
  default:  
    console.log("No  
Instruction");  
}
```

### For Loop

```
for (i = 0; i < 10; i++)  
{  
  console.log("Number " + i);  
}
```

### While Loop

```
while (i < 10)  
{  
  console.log("Number " + i);  
  i++;  
}
```

### Do-While Loop

```
do  
{  
  console.log("Number " + i);  
  i++;  
}  
while (i < 10);
```

### Strings

```
var myString = "Hello World";  
console.log(myString.length); -  
'length' operator gets length of string
```

### Functions

```
function functionName (arguments);  
function Multiplier (v1, v2)  
{  
  console.output (v1 * v2);  
}  
No return type
```

### Arrays

Javascript arrays can contain a mix of different data types  
Can access and assign values to elements that in the array yet

```
var oscillators ["sine", "saw",  
"square"];
```