

(Yes, things just got real)

### Agenda

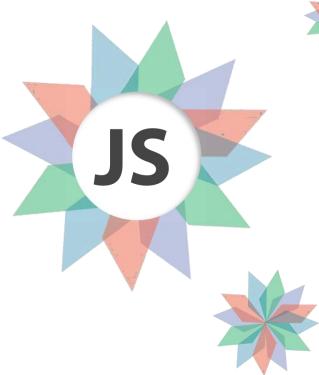
JavaScript: What & Why

JavaScript: Syntax & Insertion

JavaScript: Variables and Data Types

**JavaScript: Functions, Conditions, Loops** 









No, it's not JAVA. Promise.





### High level, Intrepreted programmig language

High level = strong abstraction = simpler to use

Intrepreted = No need for a compiler= runs directly on browser



#### **Multi-paradigm**

You can write your code in many ways (fuctional code/object-oriented code...)

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#### For the Web

Used to make web applications. Can update and change both HTML and CSS



#### **Creates Interactivity**

Buttons will now have a meaning.

hallelujah





builds very interactive websites with frameworks and librairies like ANGULAR/REACT

#### **Mobile Dev**

builds mobile applications with frameworks and librairies like REACT NATIVE/ NativeScript/ Ionic

### Server-side

Can be run on the Server using Node.js (to interact with databases)

#### **Easy**

Very easy to learn. No setup is required; it's built right into the web browser!

### JavaScript Insertion

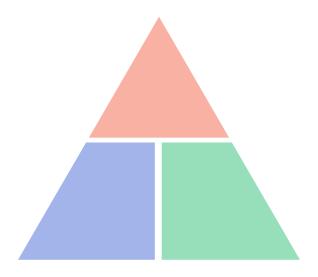


### **External JavaScript**

<script src="myScript.js"></script>



Between two <Script> </Script>. tags



<Body> </Body>

Between two <Script> </Script>. tags

### JavaScript Syntax



#### **JS Literals**

Numbers are written with or without decimals/ Strings are text, written within double or single quotes

#### **JS Operators**

JavaScript uses arithmetic operators ( + - \* / ) to compute values/ assignment operator ( = ) to assign values to variables

### JS Keywords

Var and Let for variables/ Const for constants

#### **Semicolons**

**Every Statements ends with a**;

#### **JS Comments**

Code after double slashes // or between /\* and \*/ is treated as a comment.

#### **Case Sensitive**

All JavaScript identifiers are case sensitive.

### JavaScript Variables

JavaScript variables are containers for storing data values.

- JavaScript Identifiers: All JavaScript variables must be identified with unique names.( Case Sensitive)
- Declaring JavaScript Variables: You declare a JavaScript variable with the var keyword:

#### var food;

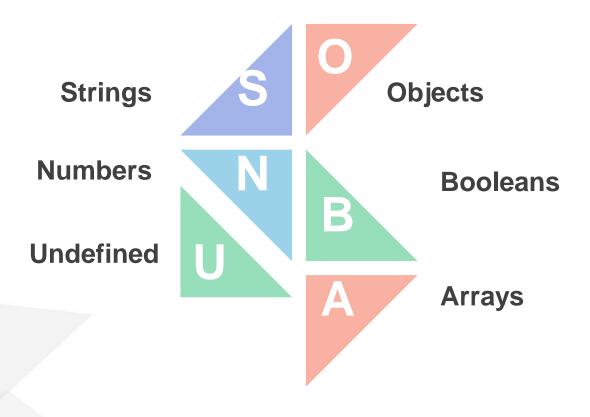
After the declaration, the variable has the value of undefined.

- •Re-Declaring JavaScript Variables: If you re-declare a JavaScript variable, it will not lose its value.
- JavaScript Arithmetic:
   you can do arithmetic with JavaScript
   variables, using operators like = and +

You can also add strings, but strings will be concatenated.

### JavaScript Data Types







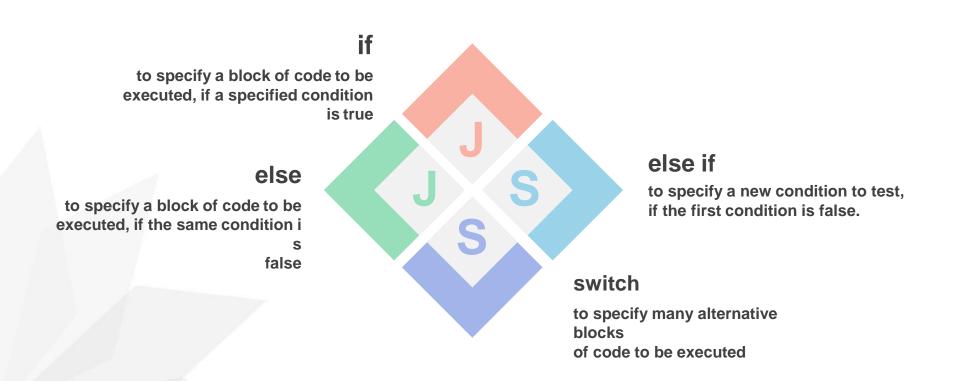
### JavaScript Functions

☐ A JavaScript function is a block of code designed to perform a particular task.

```
function keyword
                             parameter(s)
                    name
                addTwo(parameter){
   return keyword
                                                  function body (grayed
     return parameter + 2;
                                                  out, between curly
                                                  braces)
                  action to be performed
   function ivocation
  addTwo (4) arguments
 Function will output 6
```

### JavaScript Conditions

Conditional statements are used to perform different actions based on different conditions.



```
var age = Number(prompt('Please enter your age', 0));
if (age < 16) {
    alert('You are underage!')
 else
    alert('You are adult!')
```

# JavaScript Loops

### The For Loop

Statement 1 is executed (one time) before the execution of the code block.

Statement 2 defines the condition for executing the code block.

Statement 3 is executed (every time) after the code block has been executed.

```
var myArray = ['sneaker', 't-shirt', 'jacket'];
for (var i = 0; i < myArray.length; i++) {
   console.log(myArray[i]);
}</pre>
```

### The For/In Loop

The JavaScript for/in statement loops through the properties of an object

## JavaScript Loops

while (i < 10);

### The While Loop

```
var txt = "";
var i = 0;
while (i < 10) {
    alert("The number is" + i);
    i++;
}</pre>
```

```
The Do/While Loop
```

var text = ""
var i = 0;
do {
 alert("The number is " + i);
 i++;
}
This loop will execute the code block once, before checking if the condition is true, then it will repeat the loop as long as the condition is true.



### **Best Practices**



Global
variables and
functions can
be overwritten
by other
scripts.

### Declarations on Top

-Give cleaner code

-Reduce the possibility of unwanted redeclarations

### Use === Comparison

The === operator forces comparison of values and type:

# Use Parameter Defaults

If a function is called with a missing argument, the value of the missing argument is set to undefined..

