Software Academy

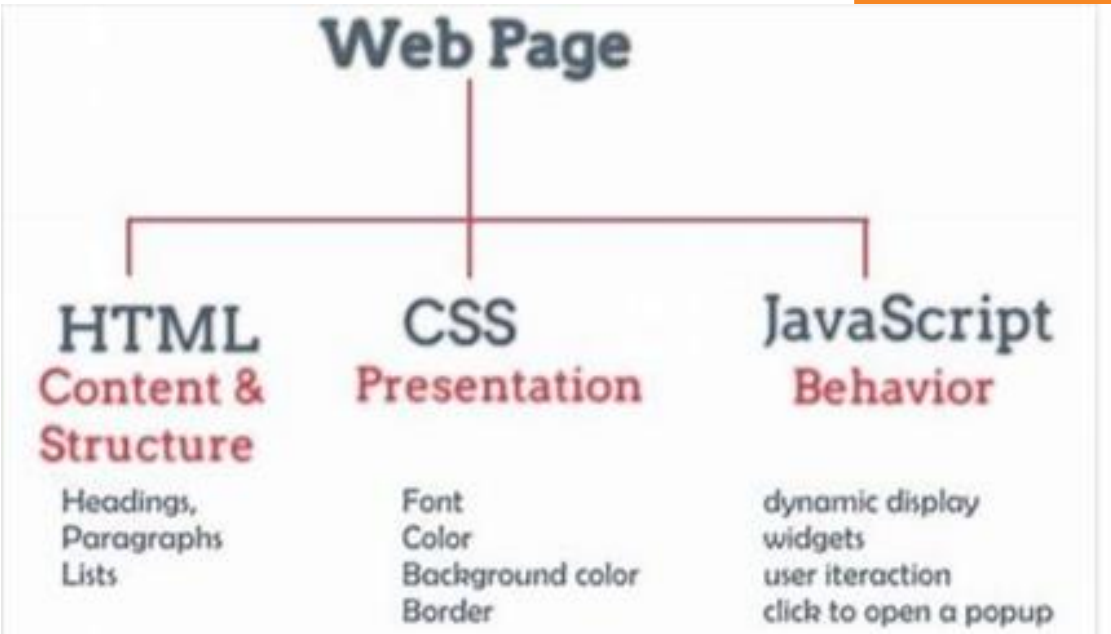
Basic Front End

TECH TALENT ACADEMY

Session Objective

TTA


JavaScript
Behavioral
CSS
Presentational
HTML
Structural


Web Page
HTML
Content & Structure
Headings,
Paragraphs
Lists
CSS
Presentation
Font
Color
Background color
Border
JavaScript
Behavior
dynamic display
widgets
user iteraction
click to open a popup

- JavaScript is *an* ***object-based scripting language*** which is lightweight and cross-platform.
- JavaScript is **not a compiled language, but it is a translated language**.
- The JavaScript Translator (**embedded in the browser**) is responsible for translating the JavaScript code for the web browser.

Application of JavaScript

JavaScript is used to create interactive websites. It is mainly used for:

- Client-side validation,
- Dynamic drop-down menus,
- Displaying date and time,
- Displaying pop-up windows and dialog boxes (like an alert dialog box, confirm dialog box and prompt dialog box),
- Displaying clocks etc.

Embedding a Script into a Web Page

- The JavaScript code:
  - Can be inserted in the following sections of the HTML document by using the `<SCRIPT>` tag:
  - Can be embedded into a Web page by using the following syntax:

```
<SCRIPT type="text/javascript" src="file.js"> JavaScript
statements
</SCRIPT>
```

Head

- If the script is meant to be executed in response to an action performed by the user

```
<!DOCTYPE html>
<html>
    <head>
        <script>
            //javascript code
        </script>
    </head>
    <body>

    </body>
</html>
```

Body

- If the script needs to be executed as soon as the page is loaded

```
<!DOCTYPE html>
<html>
    <head>

    </head>
    <body>
        <script>
            //javascript code
        </script>
    </body>
</html>
```

Creating and Using an External File

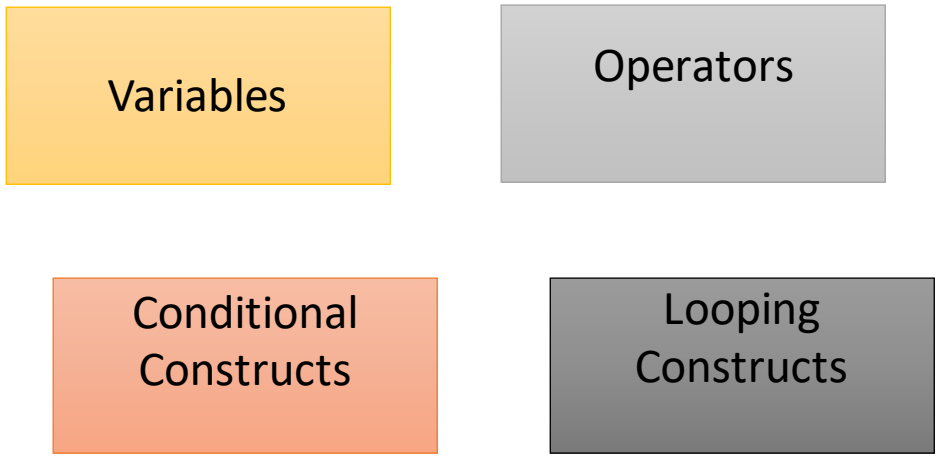
- An external JavaScript file:
  - Is saved with the .js extension.
  - Can be referred inside an HTML document using the `src` attribute of the `<SCRIPT>` tag.

sale.js

```
alert( " PRODUCTS ON SALE : \n" +" 1. LEO Mobile \n" +" 2. LEO Camera\n" + "
3. RED shoes \n"+" 4. KP Watch \n");
```

Index.html

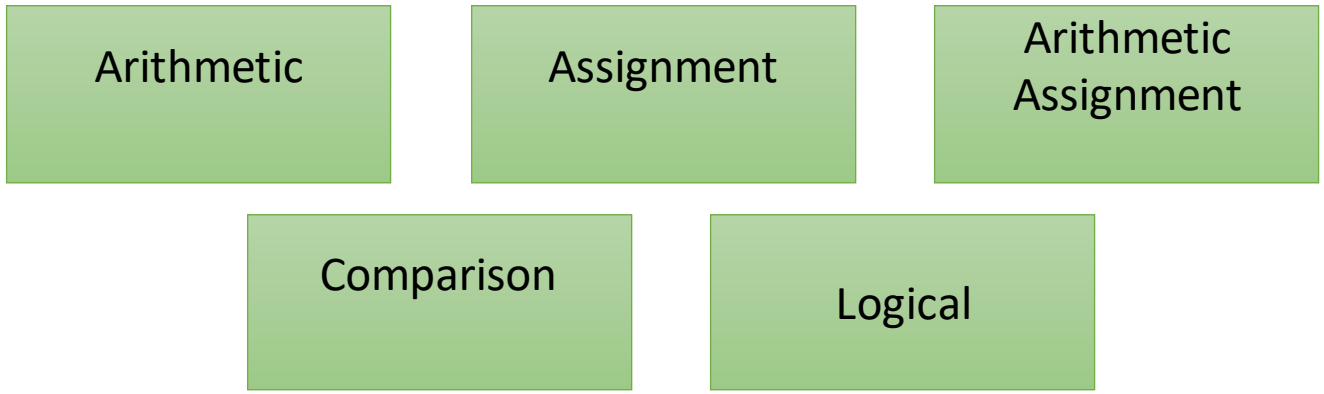
```
<!DOCTYPE HTML><HTML>
<BODY>
<H1>Buy Products </H1>
<SCRIPT type="text/javascript" src="sale.js">
</SCRIPT>
</BODY>
</HTML>
```


Variables
Operators
Conditional Constructs
Looping Constructs

```
/*declaring variable*/
//Method 1:
var name;
name = "Linda";
// name --> variable name
// "Linda" ---> variable value

//Method 2:
var name2 = "Peter";

//Method 3:
name3 = "Marly";

/*rules for giving variable name*/
//1. variable name must start with a-z or A-Z
//2. variable name should not start with 0-9
//3. variable name should not start with special symbol other that "_" or "$"
var x = 10;
var x1 = 10;
var X = 10;
var _x = 10;
var $x = 10;
```

Using Operators

- An operator:
  - Is a set of one or more characters that is used for computations or comparisons.
  - Can be used to modify the values stored in the variables.
  - Can belong to any one of the following categories:



Operator	***Description***	***Example***
+	*Used to add two numbers.*	`X=Y+Z;` *If* `Y` *is equal to 20 and* `Z` *is equal to 2,* `X` *will have the value, 22.*
-	*Used to subtract two numbers.*	`X=Y-Z;` *If* `Y` *is equal to* `20` *and* `Z` *is equal to 2,* `X` *will have the value, 18.*
*	*Used to multiply two numbers.*	`X=Y*Z;` *If* `Y` *is equal to 20 and* `Z` *is equal to 2,* `X` *will have the value, 40.*
/	*Used to divide one number by another. Returns the quotient of the division.*	`X=Y/Z;` *If* `Y` *is equal to 21 and* `Z` *is equal to 2,* `X` *will have the value, 10.5.*
%	*Used to divide two numbers and return the remainder. The operator is called as modulus operator.*	`X=Y%Z;` *If* `Y` *is equal to 21 and* `Z` *is equal to 2,* `X` *will contain the value, 1.*

Operator	*Usage*	*Description*
`+=`	`X+=Y;`	*Same as:* `X = X + Y;`
`-=`	`X-=Y;`	*Same as:* `X = X - Y;`
`*=`	`X*=Y;`	*Same as:* `X = X * Y;`
`/=`	`X/=Y;`	*Same as:* `X = X / Y;`
`%=`	`X%=Y;`	*Same as:* `X = X % Y;`

Operator	Description	Example
==	Is equal to	10==20 = false
!=	Not equal to	10!=20 = true
!==	Not Identical	20!==20 = false
>	Greater than	20>10 = true
>=	Greater than or equal to	20>=10 = true
<	Less than	20<10 = false
<=	Less than or equal to	20<=10 = false

Operator	Description	Example
&&	Logical AND	(10==20 && 20==33) = false
||	Logical OR	(10==20 || 20==33) = false
!	Logical Not	!(10==20) = true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