

Linking a JavaScript file within HTML Page

(i)

HTML PAGE CODE

```
<!DOCTYPE HTML>
```

```
<html>
```

```
  <head>..... </head>
```

```
  <body>..... </body>
```

```
</html>
```

```
<head>
```

```
  <style>
```

```
    JavaScript
```

```
    .....  
    .....  
    .....
```

```
  </style>
```

```
</head>
```

* Writing a JS Code inside a head Tag of HTML Code is referred as In-line linking using In-line Script. (Internal)

(ii)

index.html

```
<!DOCTYPE HTML>
```

```
<html>
```

```
  <head>..... </head>
```

```
  <body>
```

```
    <script src='script.js'>
```

```
  </script>
```

```
  </body>
```

```
</html>
```

script.js

```
let var = 10 + 10;
```

```
alert("Hello world");
```

```
console.log("Printing to Console")
```

This is referred to as External linking of JavaScript file. `<script src="location"> </script>` is added just before closing `</body>` tag.

* JavaScript files are having "xxxxx.js" Extension.

Values & Variables

* **Value** is Basically a piece of data. It is the most fundamental piece of information available in programming.

A Value can be of any type. (i) it can be number (ii) it can be a string or any other data type available in JavaScript.

* **Variables** are nothing but a piece of memory which holds a value or information. Once the values are stored in variables or stored in memory, it can be used over and over again whenever it is necessary or required. Values can be accessed or manipulated using the variable names.

type declaration value (piece of information)
let Age = 40 ;
Variable name

In JavaScript a variable can be declared in 3 ways using

- (1) let (2) var (3) const

Convention or naming rules for variables

* Number should not be there in start of a variable name.

* Other than \$ or _ are not allowed

* Keywords are not allowed to declare variable names.

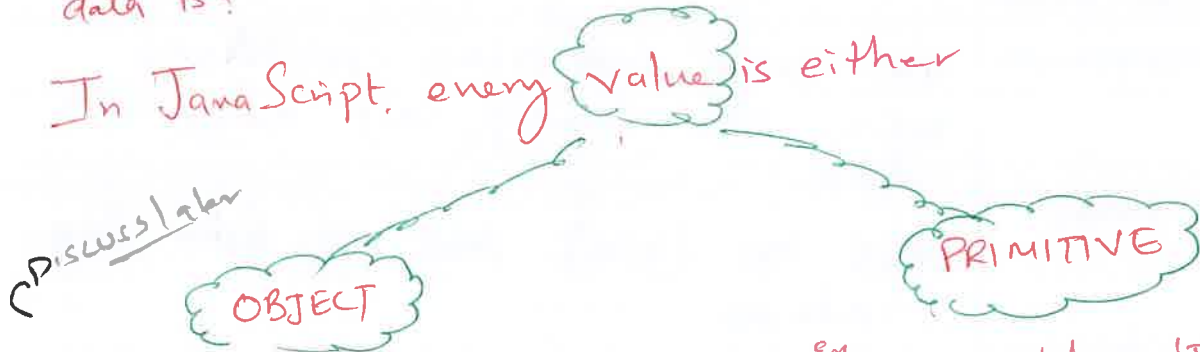
* declaring variable names with capital letter are not illegal but not advisable as variable names with starting letter capital is used in object-oriented programming.

It is always advisable to use camel casing to define variable names. Variable name should be explanatory means they should be able to reflect what value it is having. It should be descriptive.

DATA TYPES

* By Data-Type we means that what kind of information / data is?

In JavaScript, every value is either



Ex Let me = {
name: 'Jonas'
};

Ex Let firstName = 'Jonas'
Let age = 30;

In Javascript we can store 7 types of Primitive Values or 7 different Data-Types

① Number :- Floating point numbers :- used for decimals & integers.
(All numbers in JavaScript are of floating type which means they do have decimal part as compare to other programming language) Let age = 23;

② Strings :- Sequence of characters :- used for text & always marked between Single/Double Quotes. Let firstName = "Virendra";

③ Boolean :- Logical type that can only be True or false.
:- used for taking decisions. Let fillage = true;

④ Undefined :- is a value taken by a variable that is not yet defined Let name;

⑤ Null :- Also means Empty Value.

⑥ Symbol (ES2015) :- value that is Unique and Cannot be changed.

⑦ BigInt (ES2020) :- Larger integers than the Number type can hold.

In JavaScript we do not manually define the data type of the value stored in Variable, data types are determined automatically. So, JavaScript has dynamic Typing.

In Simple words

Value = has Data Types ✓

Variable = X does not have data type X

Commenting

- Single line Comment = // is used to define Single line Comment.
{ any code after // is not going to be executed }
and simply omitted
- Multiline Comment :-
/*
.....
*/