

HTML & CSS

↓

is building block  
of web development

↓  
to beautify  
the elements  
create using  
HTML

elements / Structure

to the website

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↓  
Basic Resume / Portfolio

Web Development was not so interactive not so beautiful, not easy to develop and we also didn't have great browsers

Java → difficult

→ Super famous



✗ no similarity

JavaScript

- ① Interaction with DOMs was easy  
↳ HTML element
- ② Easy to write → more human friendly
- ③ Same language for frontend as well as backend.

[PHP, or Java or C++]



## User

- ↳ To build an interactive UI (User Interface)
- ② To maximise the UX (User Experience)
- ③ To build games , To show movies,  
To do anything what you  
do on OS we accepted JS

## Why you should learn it ?

- ↳ There are a lot of Job opportunities on the skill set of JS.
- .... n chance

② Higher Pay Packages , chance  
to work at Startups.

↳ JS is a scripting language.

### Step by Step

Because we will command our system to do the actions written JS step by step.

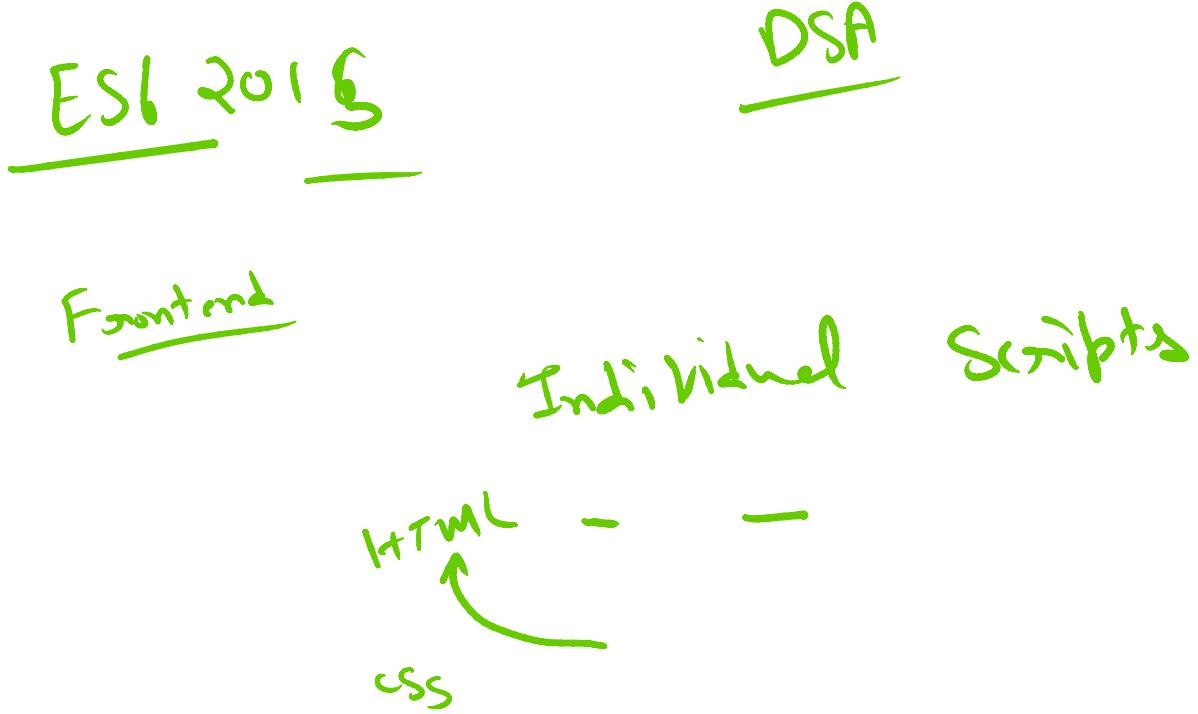
↳ JS can manipulate your DOM, manipulate styling (SS), can perform programmatic functions.

To add dynamicity in website we use JS.

↳ Client Side Script] → client PC

↳ Server Side Script ↗ Company

2) Server side - API ↴ Company  
Server



## 1) Internal JavaScript

When we write JS code in  
HTML itself.

## 2) External JS

If we write script in Separate  
file and link it with  
HTML using Script Tag.

## Print statement

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console.log()  
Storing Number Dollar variable or  
Whatever you want to print

System.out.print("hello world")

Terminal  
Debug Tool  
console.log("hello world")  
Print  
Point hello world in terminal

JS is not strictly typed

it is not on the language.

## Variables

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No variables means  
No dynamicity

hello

2

3

x → 1

2  
3

Patience  
Interactivity

In Java we needed to understand  
Data types first.

int →  
float →  
boolean →  
string →  
.

var



You can use  
to create variables

in  
Array → ]

Var name of  
variable

Keyword  
Undefined

This is the initial value of every variable.

ES6 → let

Let name of  
the variable = value

Const

= value

Const

name of  
Var.

## Let vs Var vs Const

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	ReInitialization	Redeclaration
Var	✓	✓
Let	✓	✗
const	✗	✗

JS have data types but it's not compulsory to give them a keyword.

1) Number → Int, BigInt, Float,  
Double,

1    1.1    2.2

2) Boolean → true, false

3) String → (' a b c d ')  
(" a b c d ")  
(→ abc'd )

---

Concatenation

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1) In Strings

## ④ In Strings

"hello" + "world" = "helloworld"

"hello" + "mustafa" + "Are" + "you"  
+ "getting" + "me" =

"hello" + " " + "Schwarz"  
= "hello - Schwarz"

Type conversion (type casting)

↳ ① Mannual conversion

"1" → 1  
→ "1"

1 → "1"

③ Automatic conversion

Type conversion

"Student Number"  
string



+ number  
was internally  
type converted  
to string

"Student Number 1"

Priority Table ] ]  
String 5  
number 4  
boolean 3

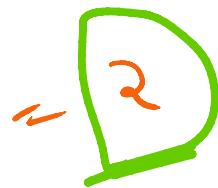
String  
number  
boolean

Type 1





1 + 1  
Number      Boolean  
true



$$1 + \text{false} = 1$$

$$1 + 0 = 1$$

$$\text{true} \rightarrow 1$$

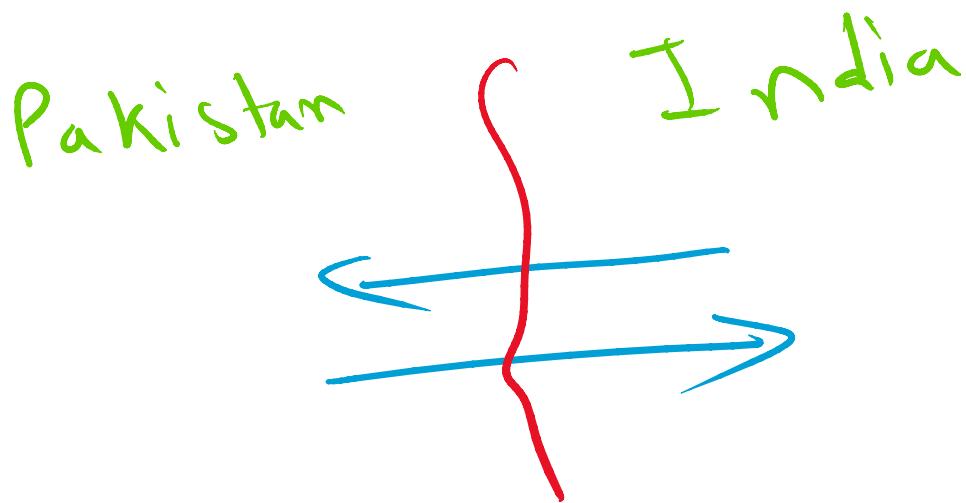
$$\text{false} \rightarrow 0$$

# Array

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↳ Data Type  
↳ length

Let arr = [ ]  
~~x~~:



arr = [1, 2, 3, 4, 5]  
arr = ["abc", "xyz"]  
arr = [1, 2, "abc", "abc", "abc"]

$\sim$

$a \in \{1, 2\}$  "abc")

$a \in \{1, 2\}$  true)

# Objects

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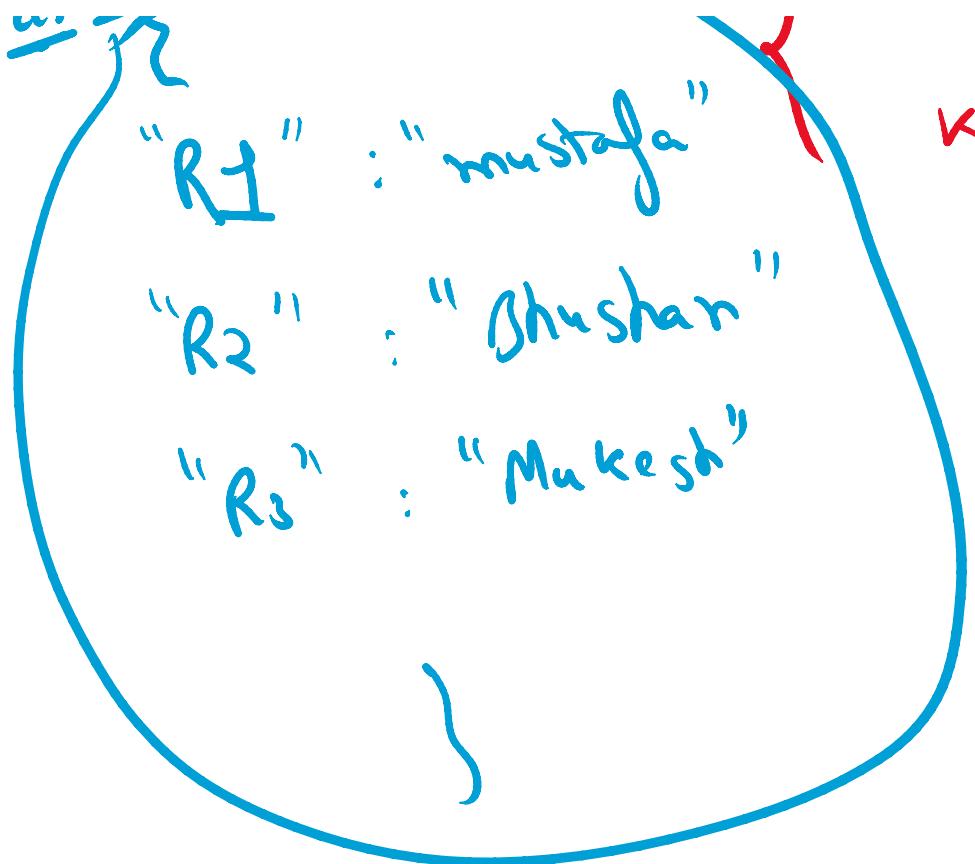
key → value

o → value

[ 1 , 2 ]

let obj = { " " : " " }

... : value<sub>1</sub> , ... : value<sub>2</sub> , ... : value<sub>n</sub>



# Functions

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# Single Thread vs Multithread

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# Execution in JavaScript

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