



GDG DEV BOOTCAMP



Javascript for interactive Programming



Session 04

Javascript for interactive Programming

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Session requirements :

- Html/Css basic information.
- No javascript prior knowledge needed.



Table of content :

1. Basics.
2. Arrays & methods.
3. Dom.
4. Events.
5. Exercice (To do list using javascript).



Basics



What is Javascript ?

- JavaScript was initially created as a browser-only language, but it is now used in many other environments as well.
- Today, JavaScript has a unique position as the most widely-adopted browser language, fully integrated with HTML/CSS
- There are many languages that get “transpiled” to JavaScript and provide certain features. It is recommended to take a look at them, at least briefly, after mastering JavaScript.



Up and Running with JavaScript

<Script> tag :

Write javascript code directly inside the Html file.

External script:

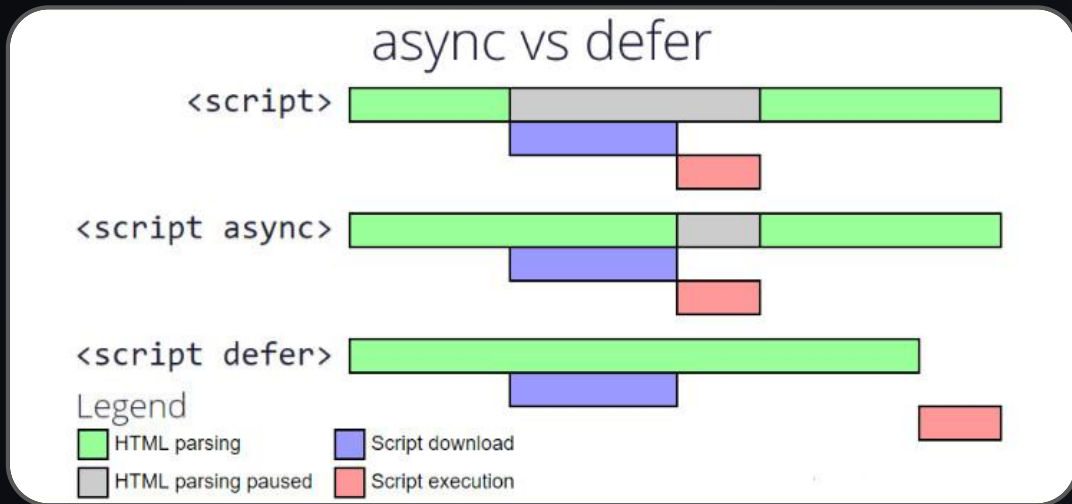
- Write javascript code inside a separate file (*script.js*).
- Import it inside the html



Up and Running with JavaScript

External script:

use attributes : defer | async





Data types :

Javascript is a **Dynamically-typed** language



Data types :

- String.
- Number.
- boolean.
- Null (*the variable is empty*).
- Undefined (*the variable does not exist*).
- Object.
- Array.



Declare variables :

`var A = "new variable";`

Problem:

`'var'` is a global scope variable

Solution:

`'let'` and `'const'` are block scope variables



String Output :

```
var color = "Red";
```

Traditional way:

```
console.log("the color is ", color);
```

Template Leterals:

```
console.log(` the color is ${color}`);
```



Arrays



Arrays:

Uses :

- Store.
- Retrieve.
- Reorder.

Functions and methods:

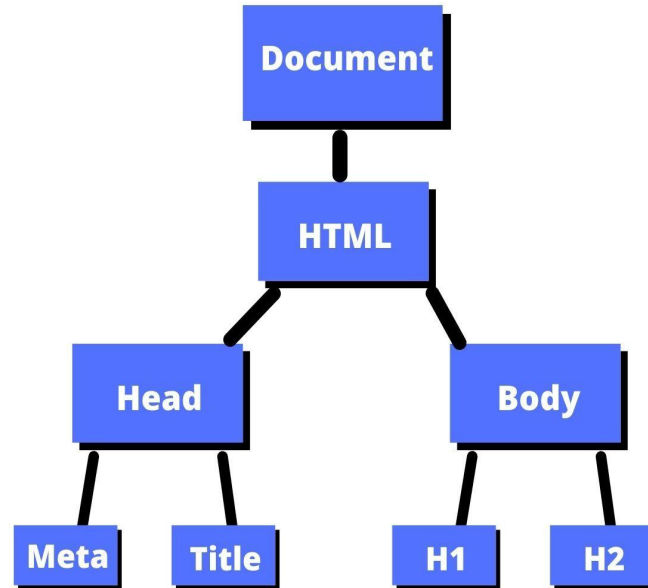
- Add or remove element.
- Find element.
- Reorder elements.



DOM



DOM :





DOM :

Main functionalities :

- find an element (querySelector).
- add or remove a class (classList).
- inline style.
- attributes.



Events



Events :

1. capture event.
2. target element.
3. handel the event.



function add an event listener

handler

```
myMC.addEventListener(MouseEvent.CLICK, clickHandler);
```

object

event
containing
event(s)

var
name
event
string



TODO list app



ToDoList

Functionalities :

1. Add a task.
2. Delete a task.
3. Mark a task as completed.



Homework :

1. Use a sweet alert if the input field is empty
2. Transfer completed tasks to another section.
3. Set a counter for both the completed tasks and the uncompleted ones.



Future Infos :

- asynchronous javascript.
- Javascript frameworks.
- Server side Javascript



Some Resources to Learn Javascript :

w3schools.com



Javascript.Info





The Learning process :

you need some basic fundamentals to start practising but while you are doing that you should - *in parallel* - continue learning the fundamentals in order to be an expert in your field.



Advices :

- Use console to debug
- Explore the MDN docs
- Solve challenges (10 days JS challenge)



Thank you

