

## Functions in J.S

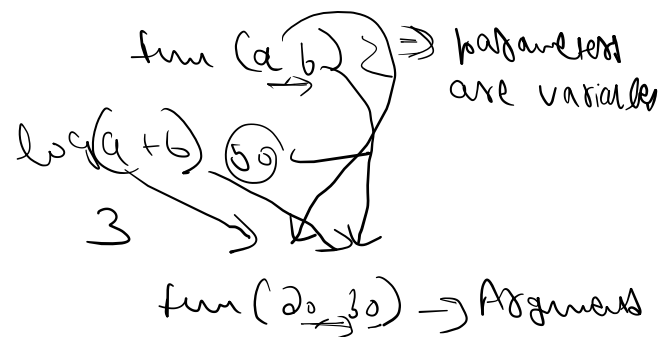
- > Functions are reusable block of Code.  $\Rightarrow$  piece of code that will perform a specific task.
- > Declare a function with
  - function keyword
  - name
  - block -
  - Call a function in order to execute

$\Rightarrow$  Function Declaration  
Function Statement

function expression (when function assigned to any variable)

First class functions  
(JS functions has some special ability in which functions can be passed as an argument to other

functions & functions can be returned from other functions)



# Declaratives

(let, var, const)

⇒ we declare variables using these declaratives.

	let	var	const
Re-declaration	✗	✓	✗
hoisting	✓	✓	✗

→

browsers

↳ J.S engine

↳ Call stack

(whole J.S code is executed)

↳ GEC

(global execution context)

1) Whenever a JS code runs a GEC is created.

2) Inside GEC → 2 phases

Memory  
creation  
(MEP)

Code  
execution  
(CEP)

3) Role of MEP is to allocate memory to variables & functions.

0 line of code is created.

4) Role of CEP is to execute code line by line.

5) Everything is happening inside Call stack.

6) Whenever any function is called a separate execution context is created.

MA / CoFx.

7) When GEC is created a global object is also created (window)

```
console.log(a)
var a = 10

console.log(a)

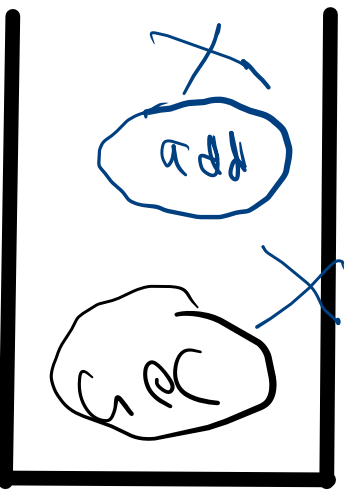
function add(){
  console.log("add function")
}

add()
```

0 lines of code

MEP	CEP				
a: <u>10</u>	log - a → Undefined				
add: func	a = 10				
3	log = a → add				
	<table><tr><th>MEP</th><th>CEP</th></tr><tr><td>X</td><td>log → →</td></tr></table>	MEP	CEP	X	log → →
MEP	CEP				
X	log → →				

Call Stack



⇒ empty ⇒

Undefined  
10  
⇒ Output

```

console.log(a)
var a = 10

console.log(a)

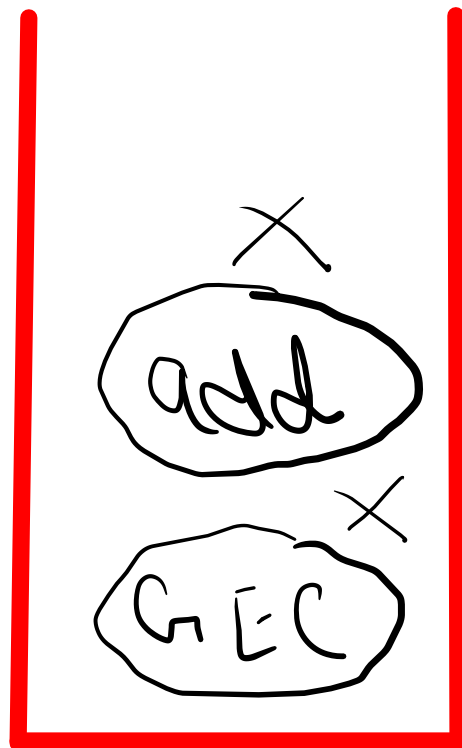
function add(){
  var inner = true
  console.log(inner)
}

add()

```

1  
2  
3  
4  
5  
6

# Call Stack



↳ Empty

Output

undefined

10

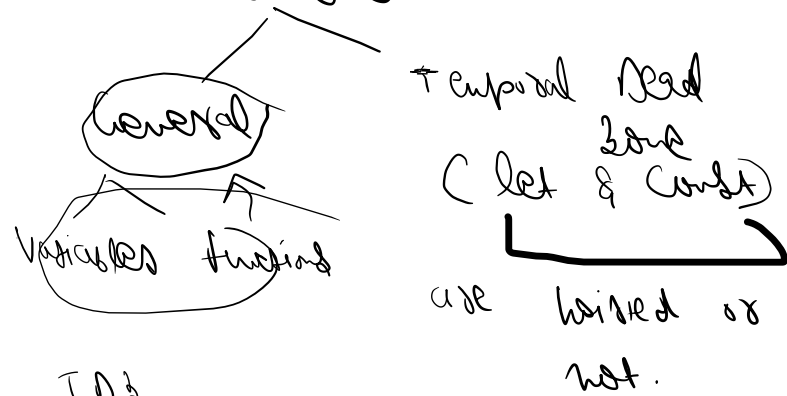
true

## GFC

MEP ✓	CEP				
a: 10 add: true	log-a a = 10 log-a <u>gold</u>				
3	<table> <tr> <th>MEP</th><th>CEP</th></tr> <tr> <td>inner: true</td><td>log true</td></tr> </table>	MEP	CEP	inner: true	log true
MEP	CEP				
inner: true	log true				

## Hoisting

→ It's a concept in JS in which we try to access variables & functions before their declarations.



TDZ  
→ It is a phase b/w variable declaration & its initialization.