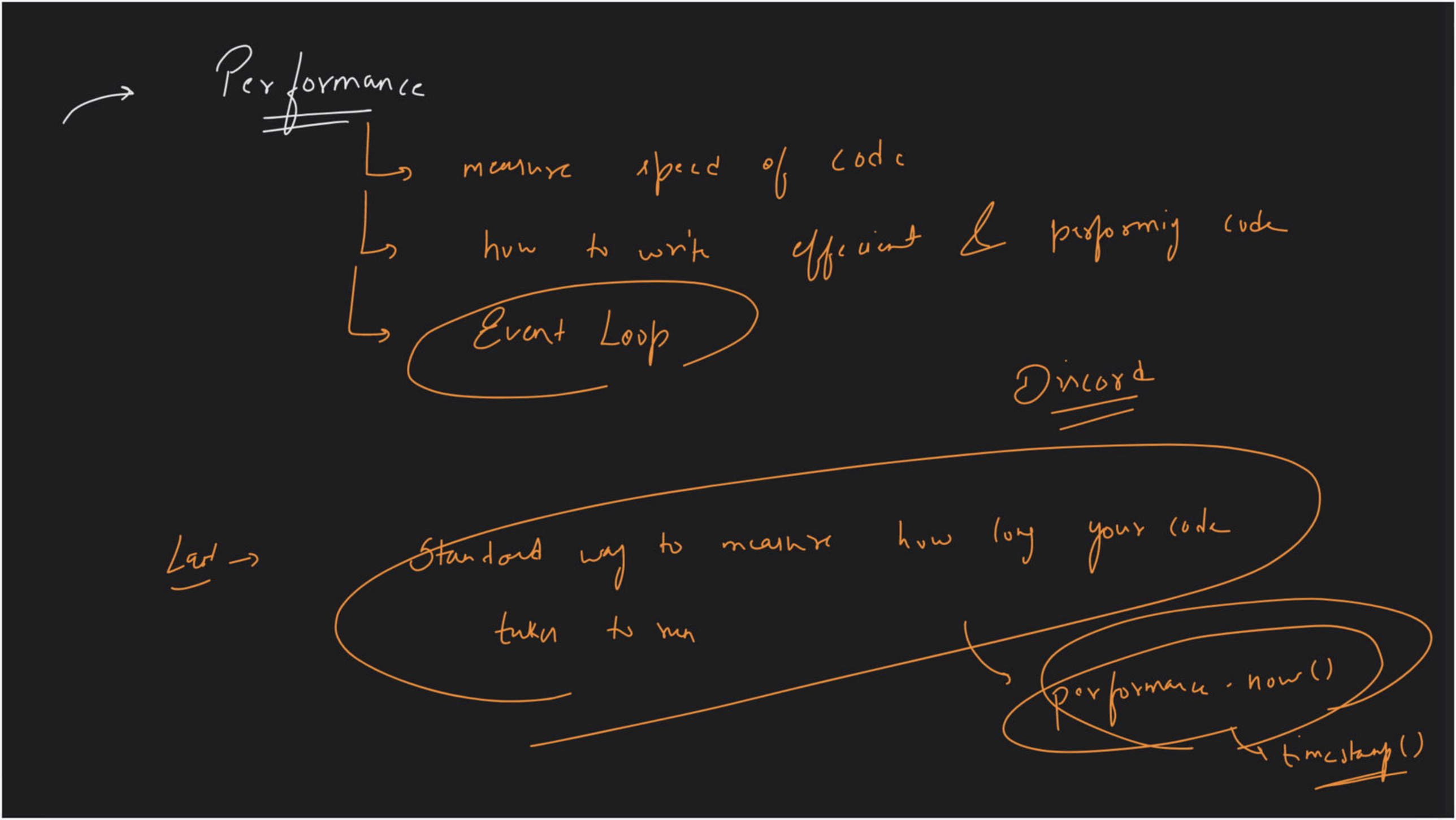
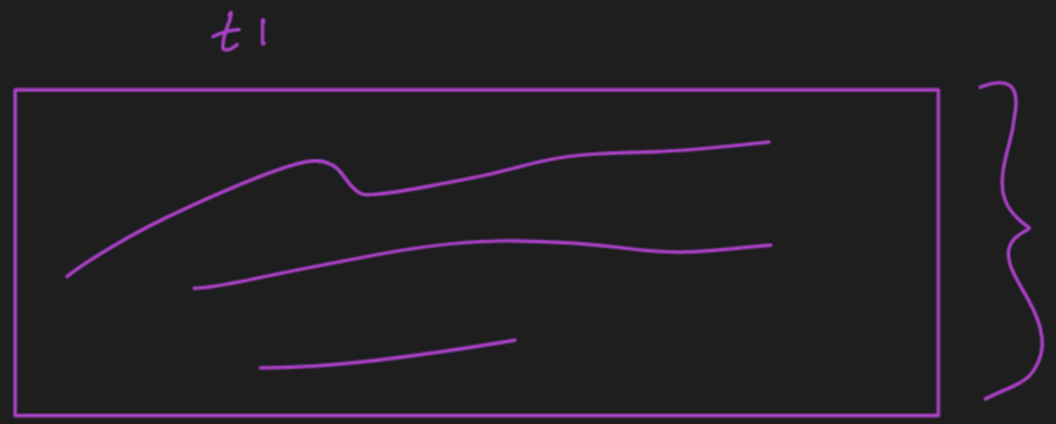
DOM + Modern JS - Class III

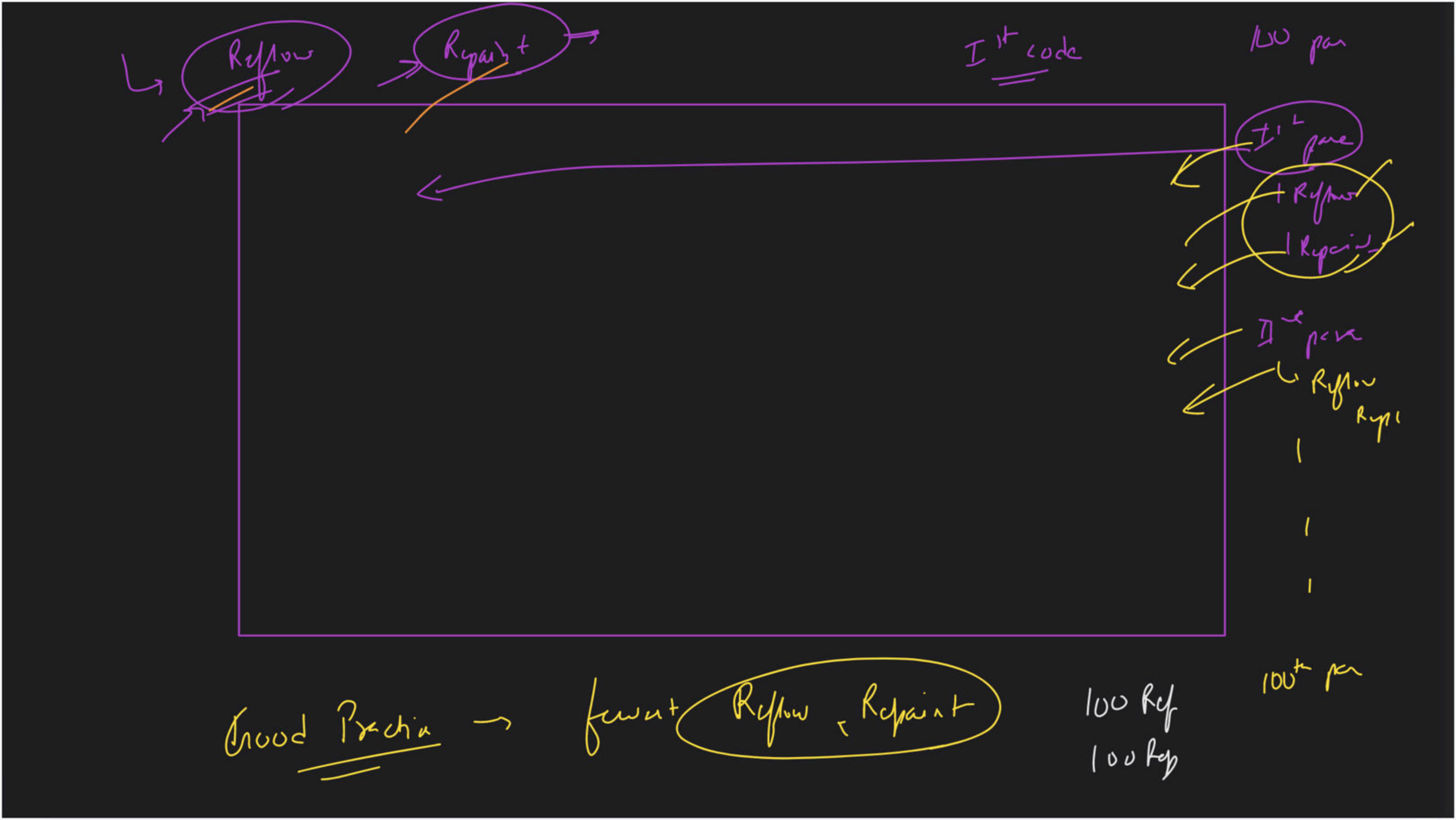
Special class

Love Babbar • Feb 19, 2023

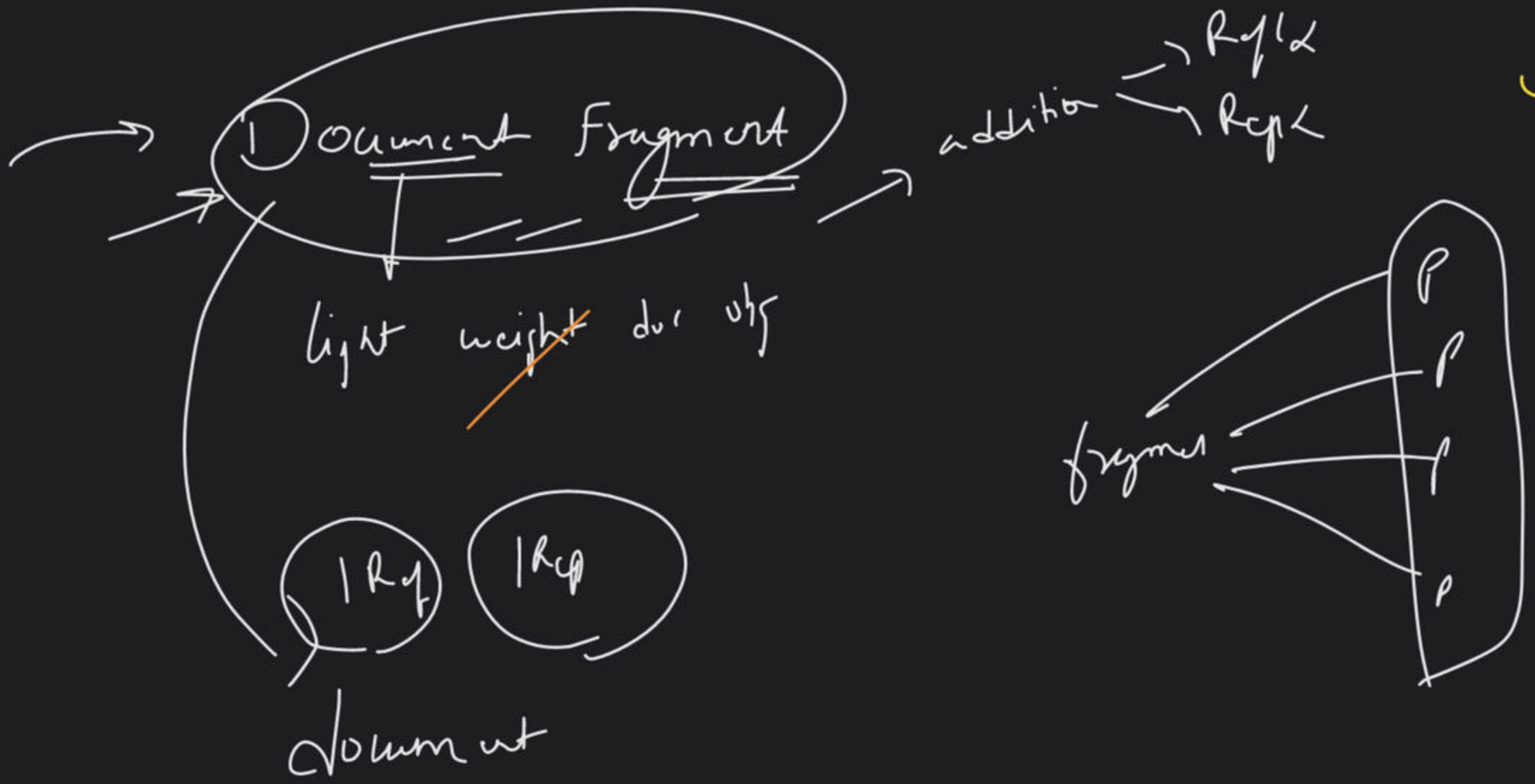

Performance
measure speed of code
how to write efficient & performig code
Event Loop
Discord
Last →
Standard way to measure how long your code
takes to run
performance.now()
timestamp()



$t_2 - t_1$ → time


Reflow
Repaint
I st code
100 pa
I st pa
+ Reflow
+ Repaint
II nd pa
Reflow
Repa
100th pa
Good Practice →
fewer + Reflow + Repaint
100 Ref
100 Rep

Best Practice



The Call Stack

C++/Java

Single-threading → JS → Single-threaded Language

processing of one command at a time

top → bottom

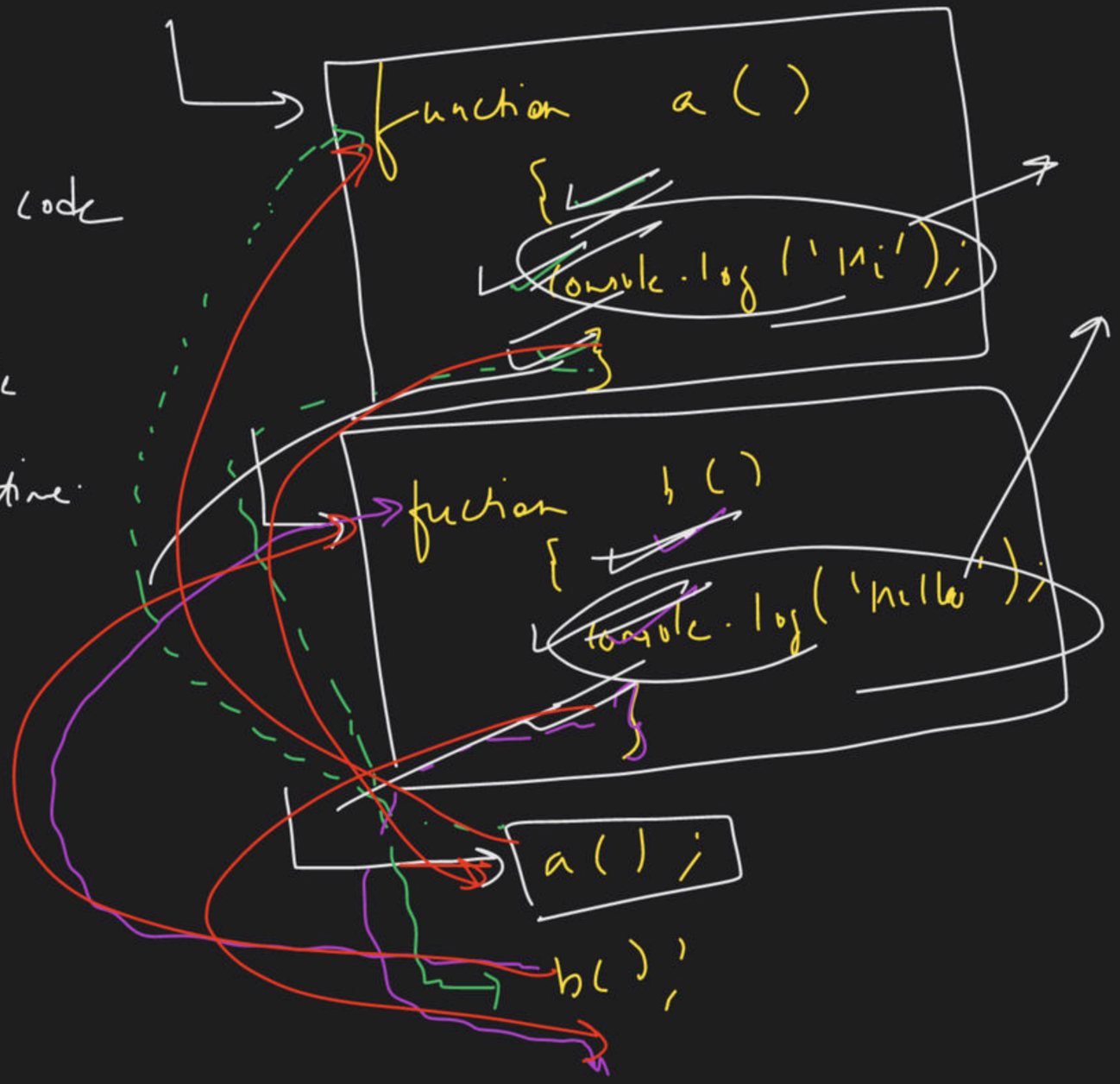
1/
2/
3/
4/
:

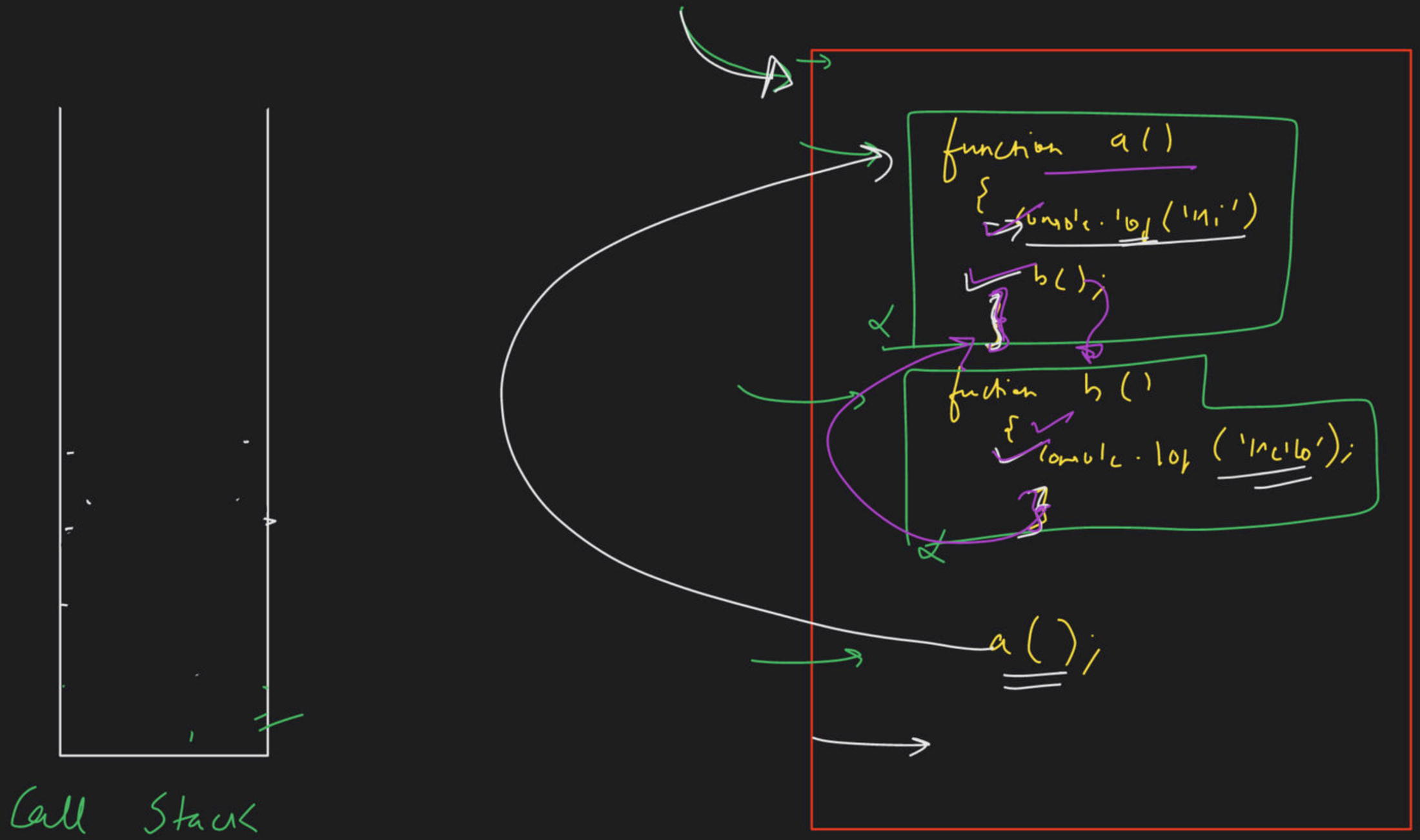
Synchronous

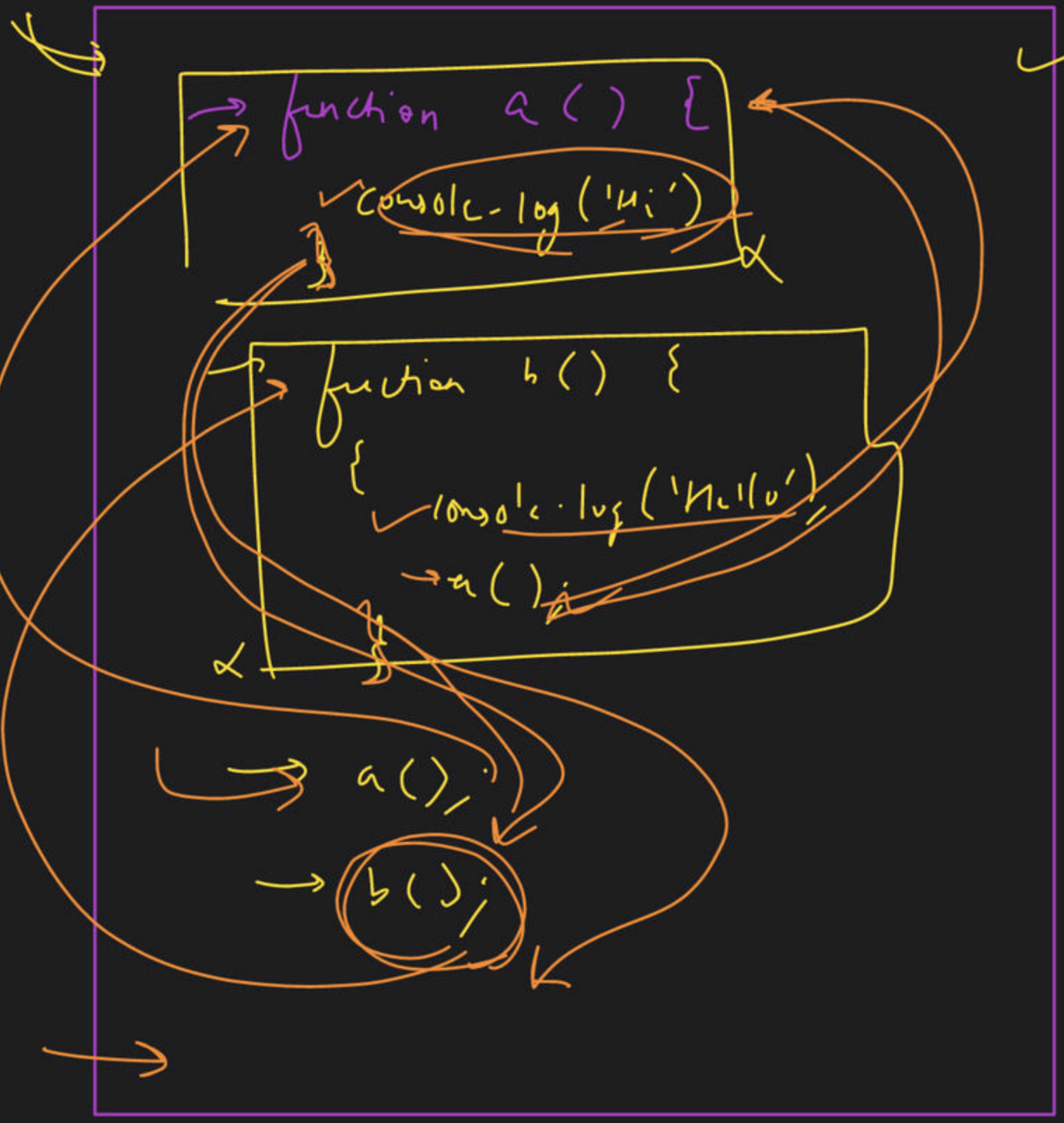
Observations :-

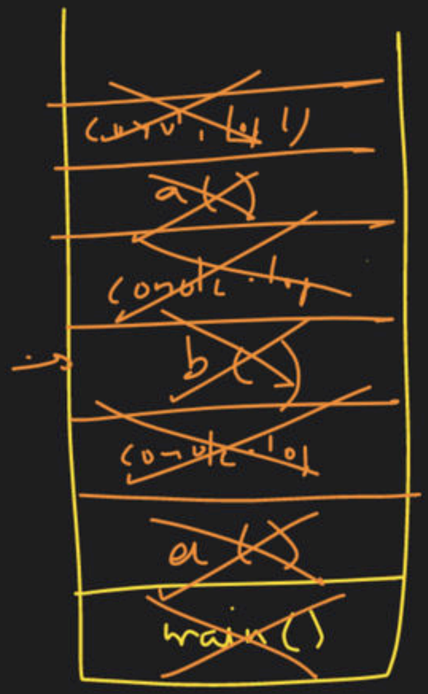
(1) 'run-to-completion' feature to code

(2) JS does not execute multiple lines / functions at the same time.

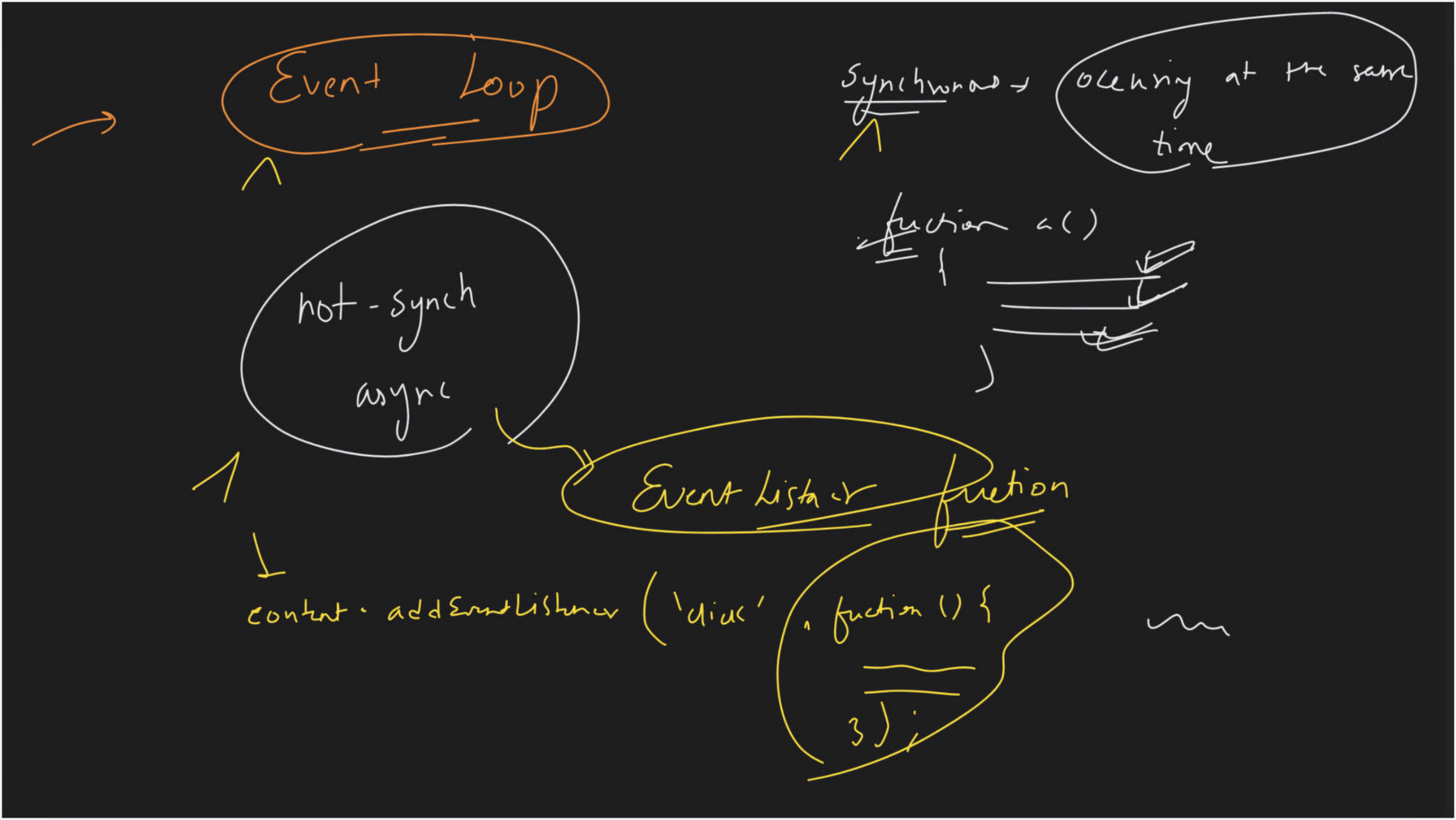



function a()
{
console.log('hi')
b();
}
function b()
{
console.log('hello');
}
a();
Call Stack


function a() {
console.log('Hi')
}
function b() {
{
console.log('Hello')
a()
}
a();
b();

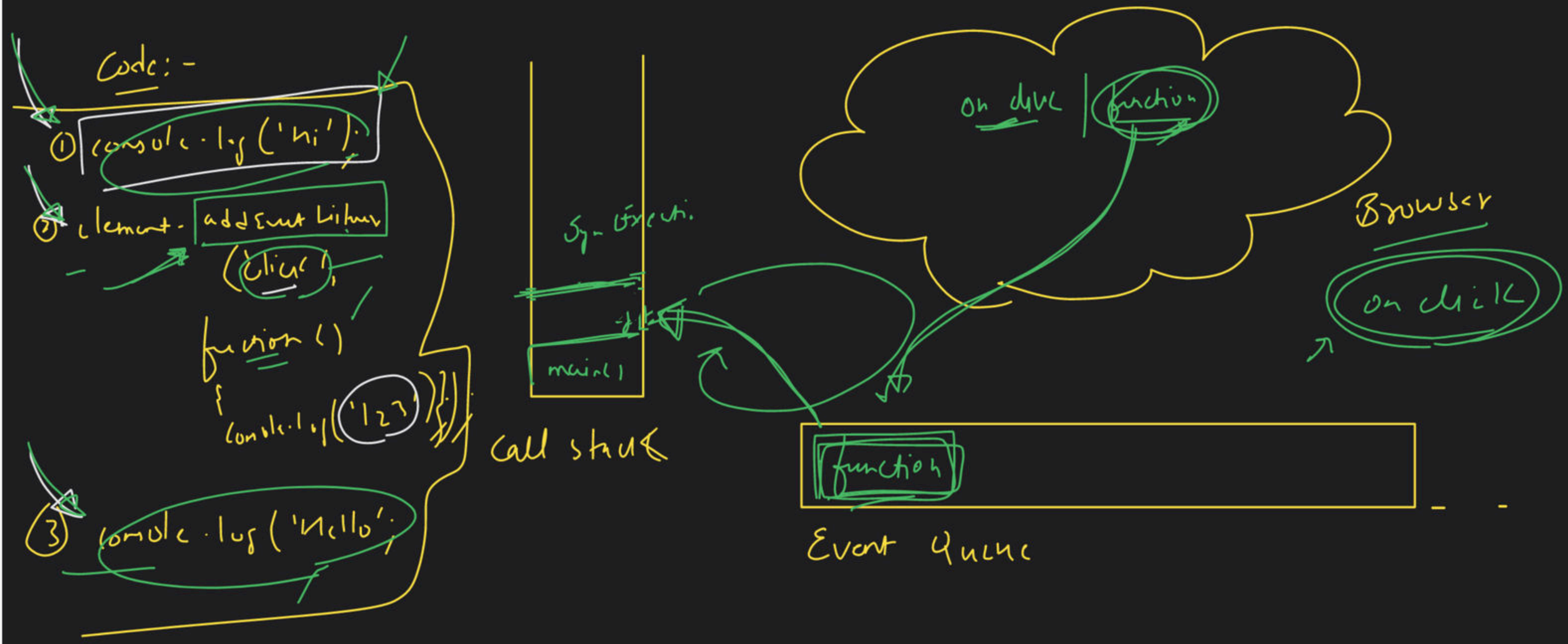

a()
b()
a()
main()

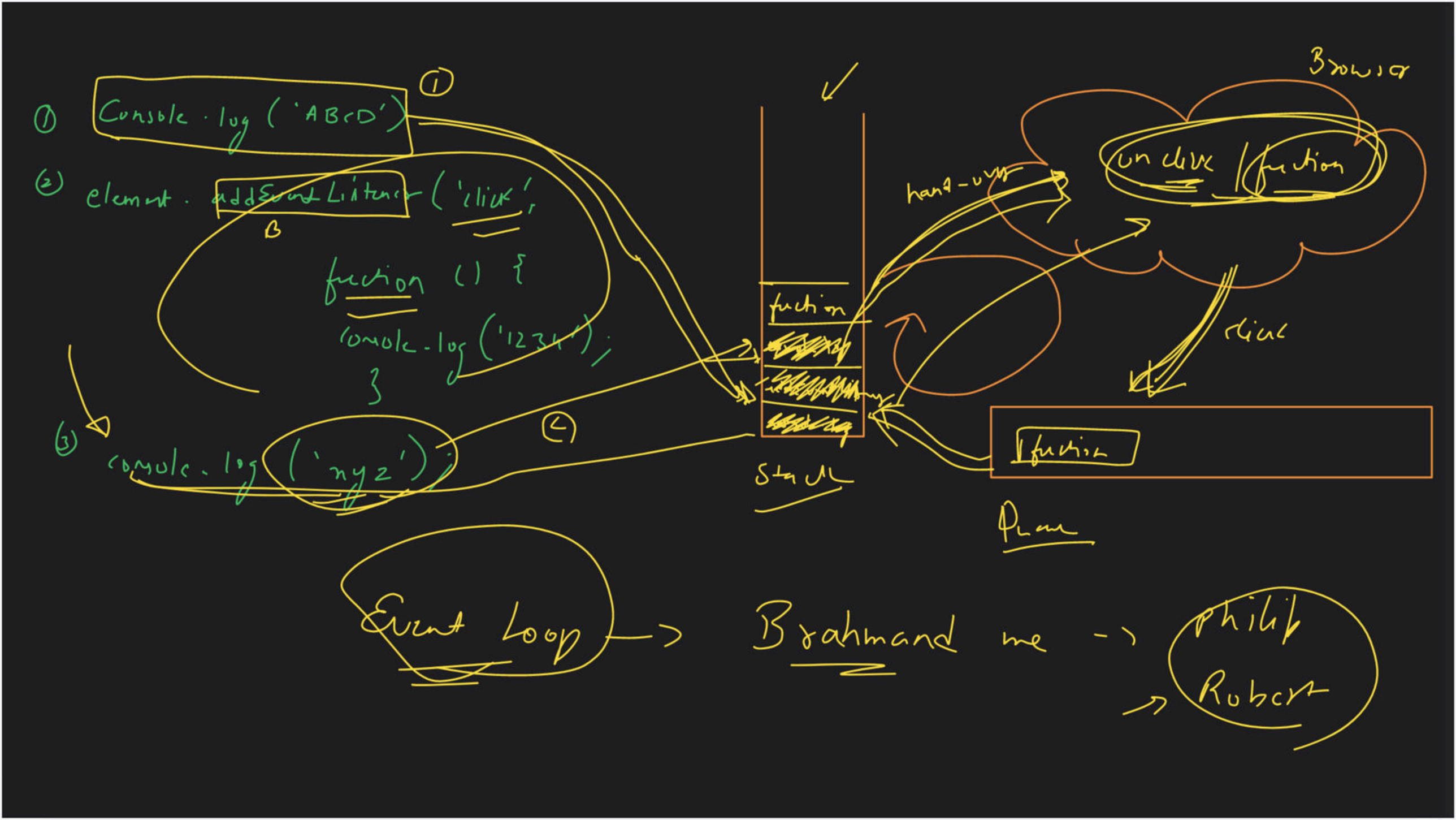
Call Stack


Event Loop
Synchronous
occuring at the same time
function a()
{
}
not-synch
async
Event Listener
function
content.addEventListener('click', function() {
});

Event Loop

Hi Hello

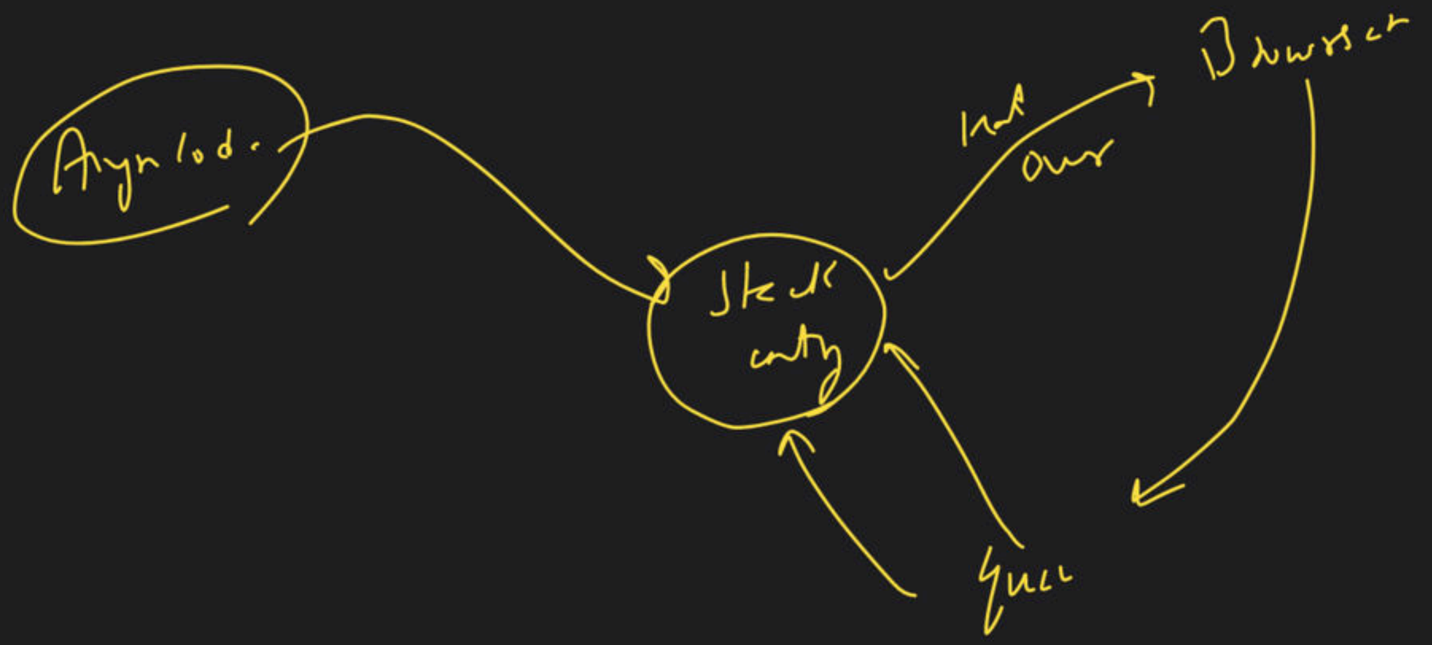


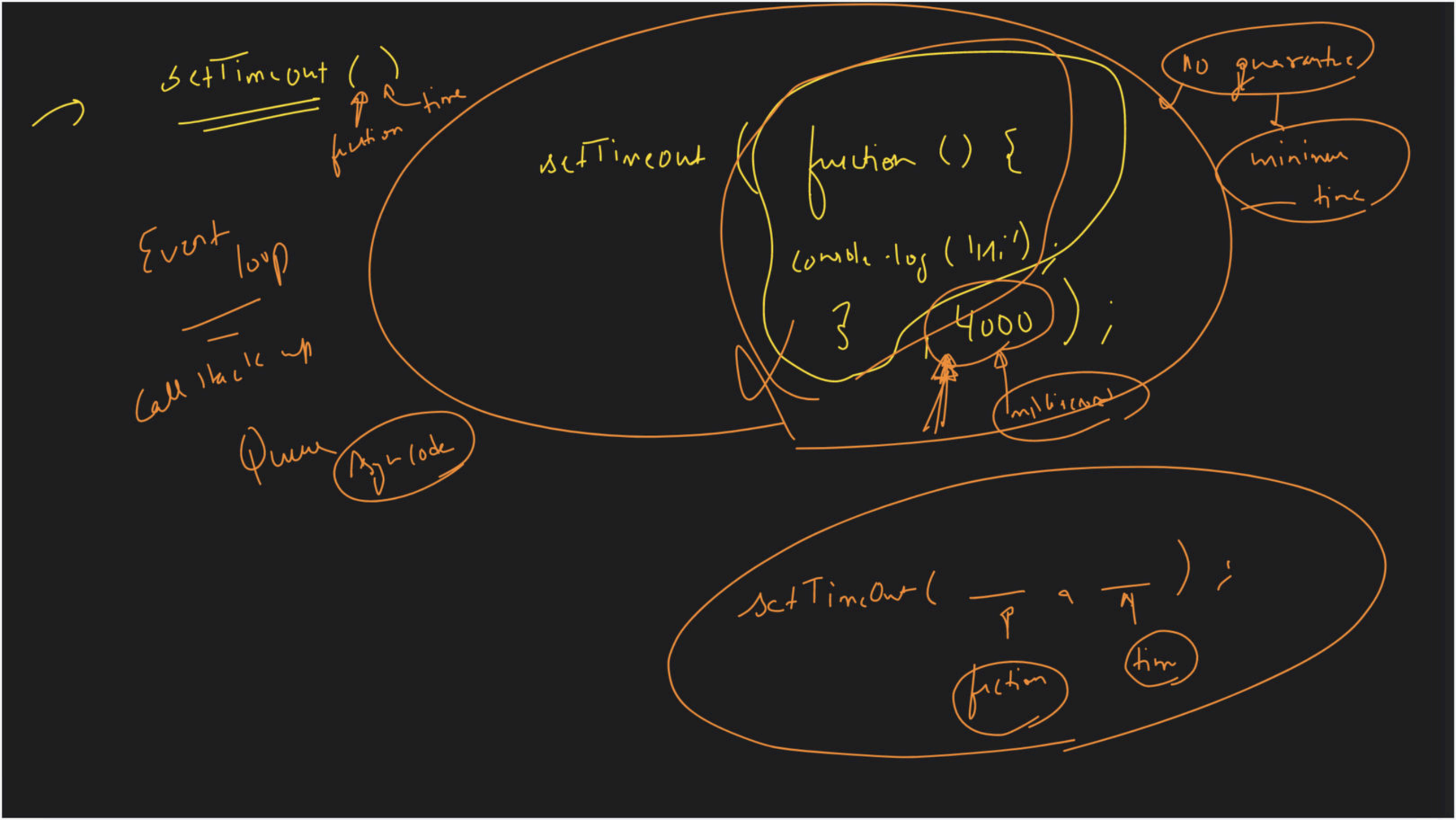

Browser
1
console.log('ABCD')
2
element.addEventListener('click',
function () {
console.log('1234');
}
3
console.log('xyz');
4
function
Stack
handler
onclick function
click
function
Phase
Event Loop
Brahmand me
Philip
Robert

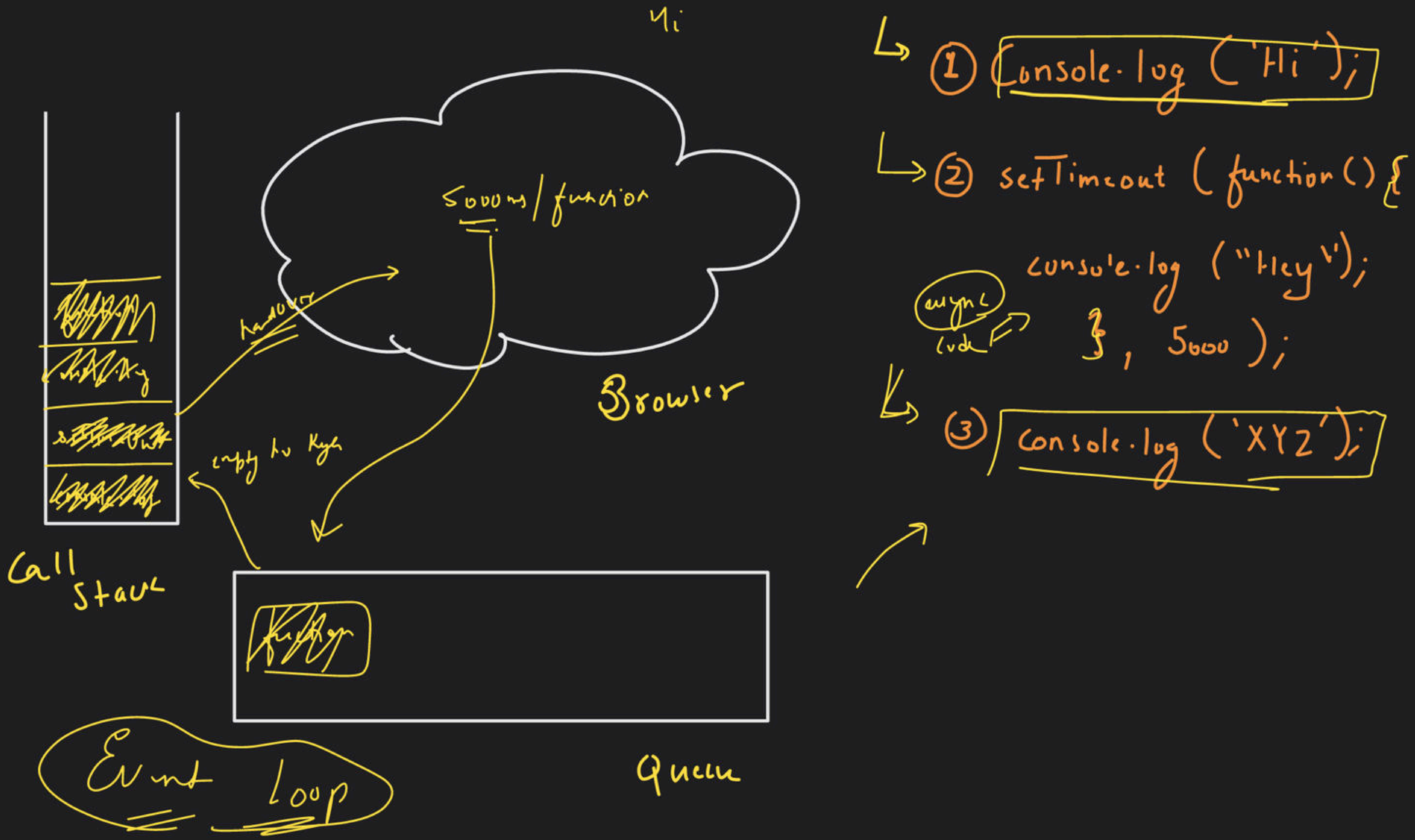
A Bit more:-

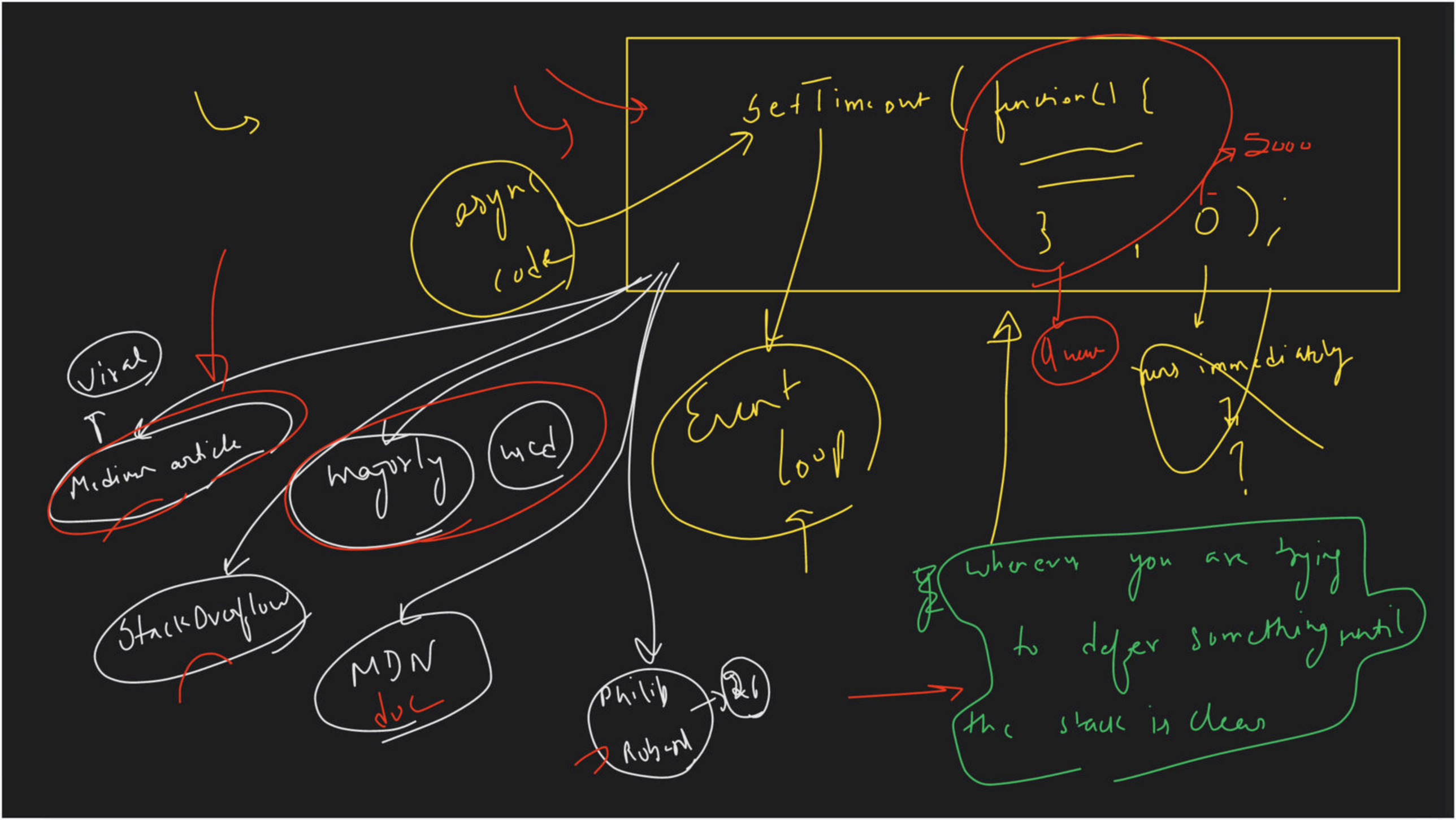
(1) Async code → JS Event Loop

(2) Handling → Browser




setTimeout()
function
time
setTimeout
function () {
console.log('Hi');
}
3
4000
milliseconds
No guarantee
minimum time
Event loop
call stack
Queue
Async code
setTimeout(function, time);


Hi
① Console.log ('Hi');
② setTimeout (function(){
console.log ("Hey");
}, 5000);
async code
③ console.log ('XYZ');
5000ms/function
Browser
Call Stack
empty hu kya
Queue
Event Loop


setTimeout (function() {
5000
} , 0);
async code
Event loop
Queue
runs immediately
Viral
Medium article
Majority
used
StackOverflow
MDN
doc
Philip Roberts
JSConf
wherever you are trying to defer something until the stack is clear