

Javascript - async code :-

→ Javascript

→ Synchronous

→ single threaded

Default

→ Execution context

↳ executes one line of code at a time

- console log → 1

- console log → 2

CALL stack

Memory Heap

(.) each operation waits for the last one to complete before executing.

(#). Blocking code vs non-blocking code

- blocks the flow of the program



Read file sync

- does not blocks execution



Read file Async

- file ko program read nhi kar sakta, hence jab kisi program ko file se data chahiye hota hai, us content switch hoke kernel ke paas जाता, kernel fir us file se data nikal ke leta, fir again execution program ko diya जाता.
- Browser ke paas itni power nhi hoti ki us file waghera read kar sake,
- file read wala part ham node.js me dekhe.

Js engine

Node API (browser)

Memory
HeapCALL
(STACK)

DOM API

CALL

Set timeout

Set interval

fetch()

Register
CALLBACK

(Promise)

(high
priority)

CB

CB

add to CALL

Stack

CB

CB

task queue

(Event Loop)