Event loop
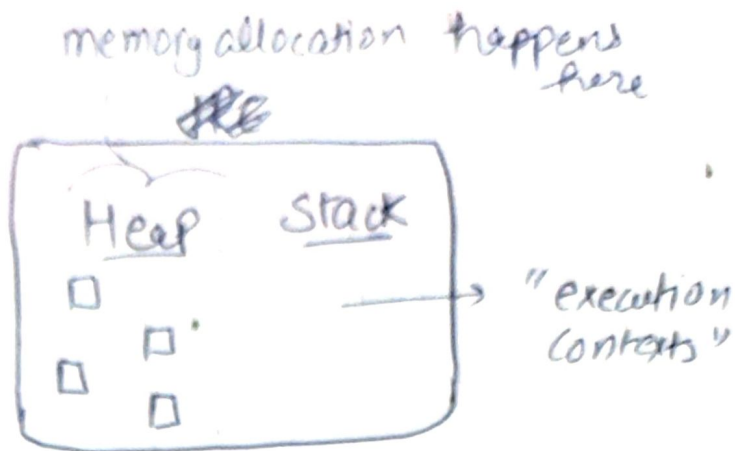
① V8 engine Runtime
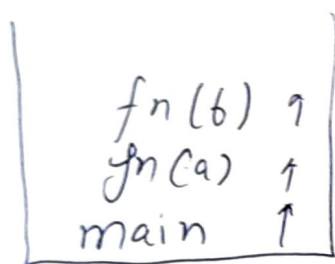
memory allocation happens here

→ "execution contexts"

Note settimeout, Http etc do not exist in V8 src

JS is a single threaded lang – can do one thing at a time

one thread = one "call stack" = one thing at a time.

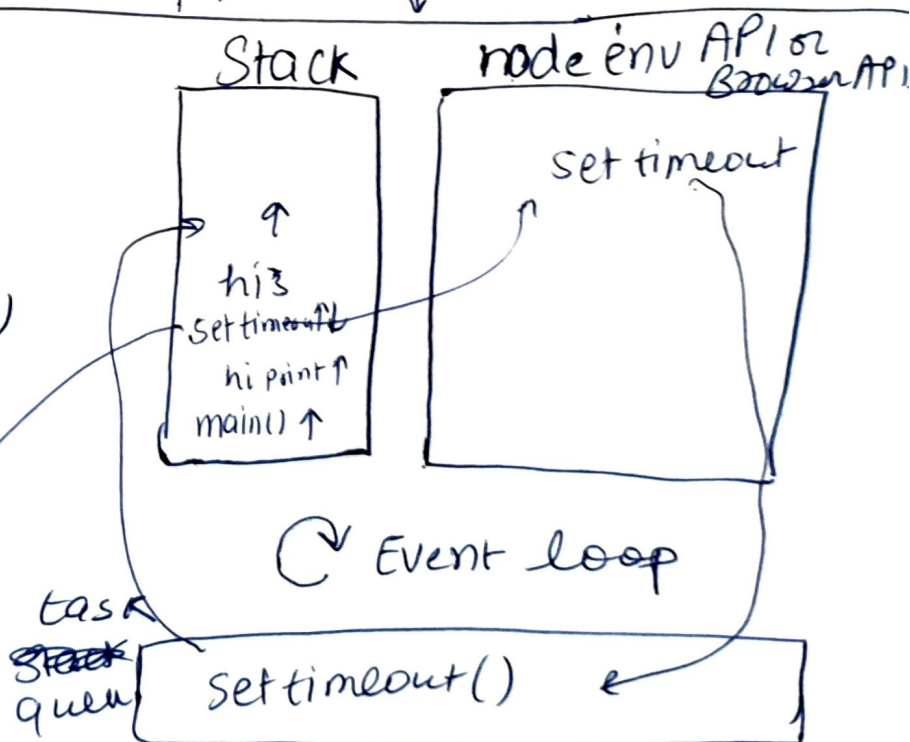~ "Call stack" is a data structure that records where in the program we are.

```
| fn (b) ↑ |        when return    | ↑ |   they all
| fn (a) ↑ |                       | ↓ |   get poppe
| main ↑   |                       | ↓ |
```

"Blocking" refers to things that are slow and are on the stack

↑ = appearing   ↓ = dissapp'

1 console. log ("hi")

2 settimeout (5s,
         console . log ("hi2")

3 console. log ("hi3")

Stack   node env API or Browser API

set timeout

```
        ↑
       hi3
    settimeout↑
    hi print↑
    main() ↑
```

⟳ Event loop

task stack queue | settimeout() |

↪ appears and dissappers at the same time
   then all of it dissappears and stack is empty
   when settimeout

This ~~stack~~ *task* queue stores all completed webAPI or Node API calls.

NOTE that node env and browser apis are extra functionality that are technically "threads" in the backend in CPP. We We as web devs use them as APIs.

— AND Event loop oney has one simple job, that is to check is stack is empty and push "tasks" in task queue to stack one by one.