

Call Stack Understanding Exercises

Tip: worry less about the terms and try to understand the concept better.

Understanding Call Stack

① * Where have seen async before?

NOG'22

What is async?

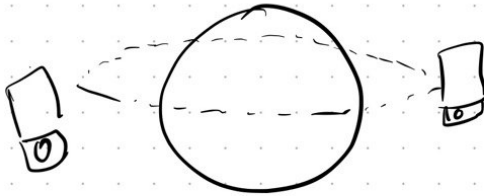
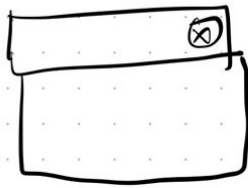
do later() ↓ (later)
do now() ↓ (now)

① fetch("banana")
other (response) → did something w/
response


② console.log("Abracadabra"),

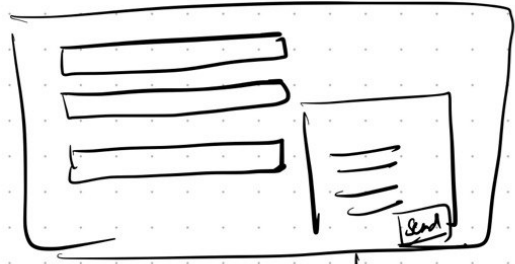
① or ② ?

Why do we need async?



$$\text{time} = \frac{\text{distance}}{\text{speed}} \rightarrow 0 \text{ (x)}$$

sendmail()
 openmail()
  user




email
poll

Will the email go in
milliseconds?

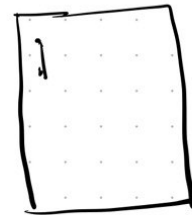
No.
why?

Q. Is JS async? No
environment

browser
 node
  make it
async

make sense?

If browser waits
for one long action
to complete
what will happen?



Bridge
" website

How browser make
sure that users don't
have to wait?

data from
server

Ⓣ Web API

xhr(>
fetch(>
setTimeout(>

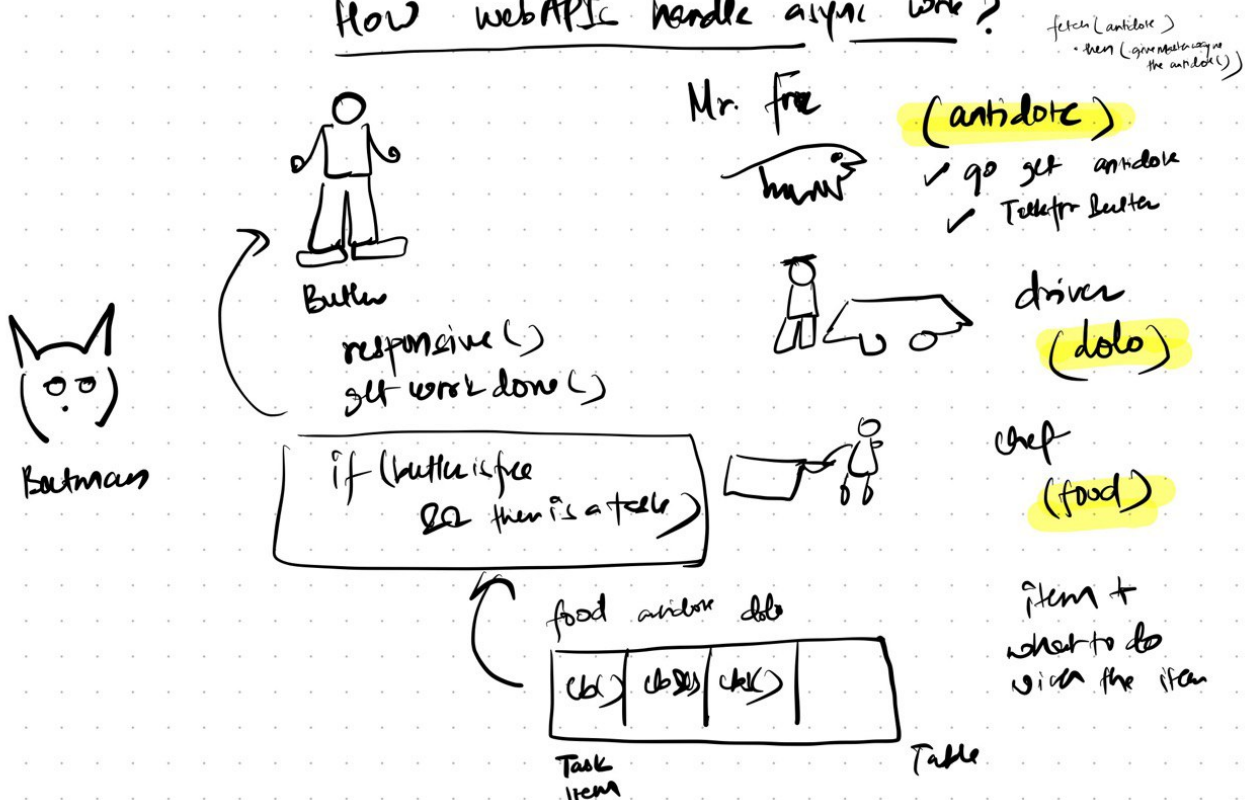
① Problem

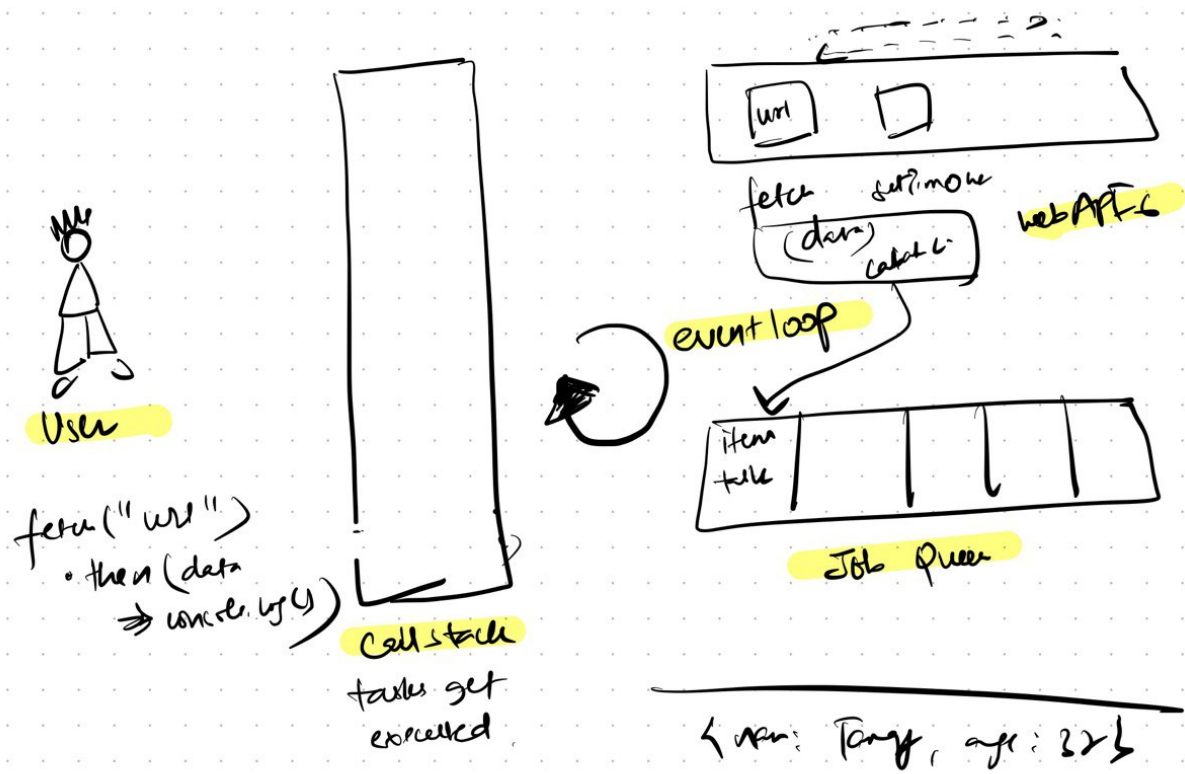
User wants website/app
to be responsive all
the time.

② Solution

WebAPI do all the async work
so that browser is responsive.

How webAPI handle async work?





function add(num1, num2) {
 sum = num1 + num2
 console.log(num1, num2, sum)
 return sum
}

2

① add(2, 3) // 50 seconds to complete
 ② add(4, 5) // 51 sec
 fetch('...')
 add(6, 7)

① → 55
 ② → 65