Asynchronous

Asynchronous Javascript

- Callback
- Promise
- ajax
- Async & Await

Javascript

"Is a **single-threaded**, **non-blocking**, **asynchronous** and **concurrent** language."

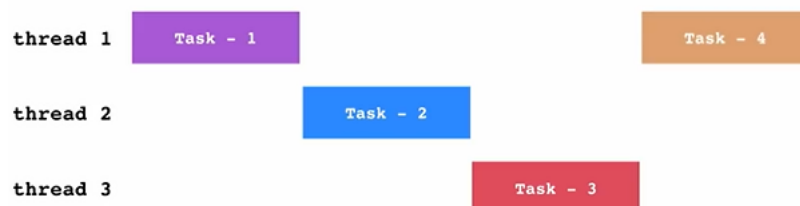http://latentflip.com/

Thread

"Urutan eksekusi kode yang dapat dilakukan secara bebas / independent satu sama lain."

Single threaded

| thread 1 | Task – 1 | → | Task – 2 | → | Task – 3 | → | Task – 4 |

Multi threaded

thread 1	Task – 1		Task – 4
thread 2		Task – 2	
thread 3		Task – 3	

Blocking

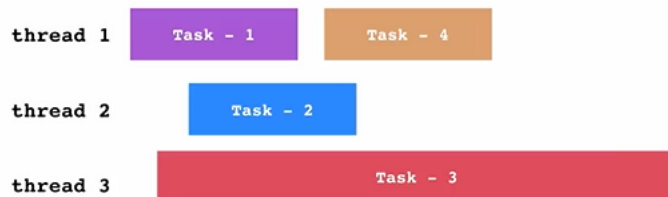## Blocking

Non-blocking

Synchronous

Asynchronous
(single threaded)

Asynchronous
(multi threaded)

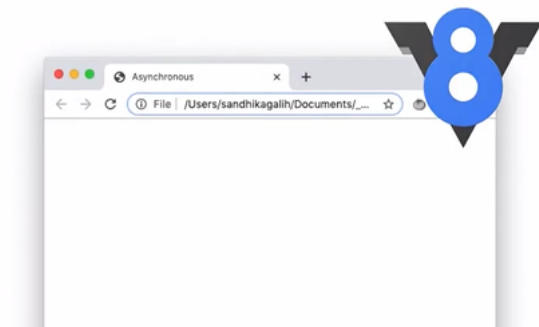Asynchronous + Single-threaded = **Concurrency**

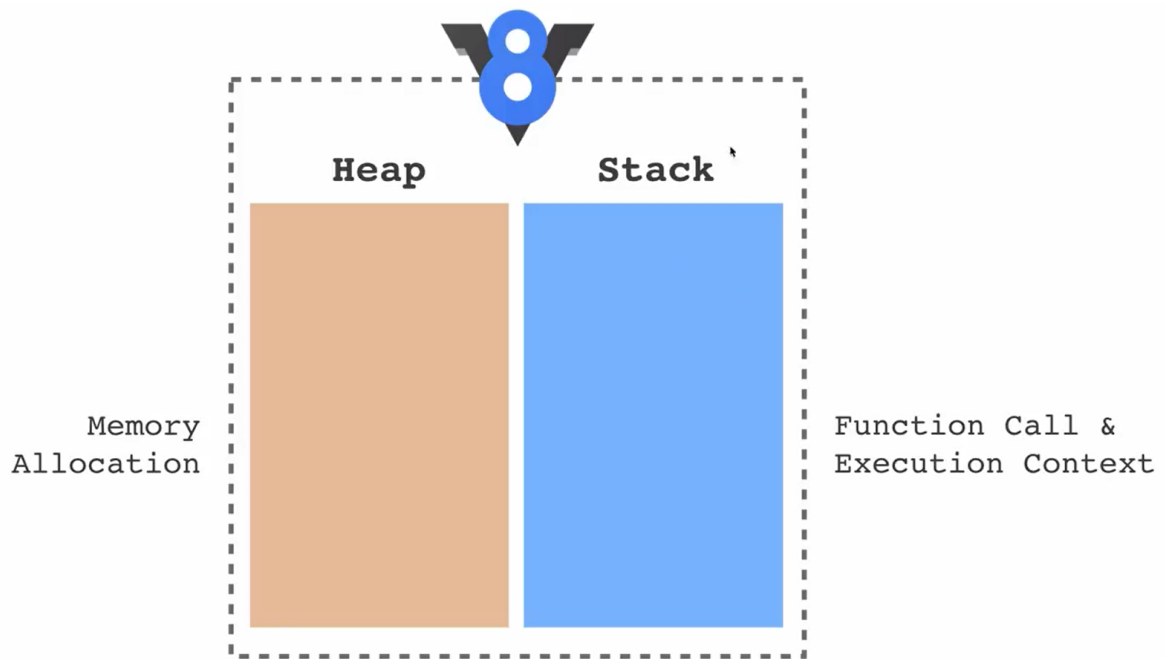Asynchronous + Multi-threaded = **Parallelism**

Kesimpulan

- **Single vs Multi Thread**
  Lingkungan eksekusi 'task'
- **Blocking vs Non-blocking**
  Teknik 'ngoding' (IO related)
- **Synchronous vs Asynchronous**
  Teknik 'ngoding' (HTTP Request related)
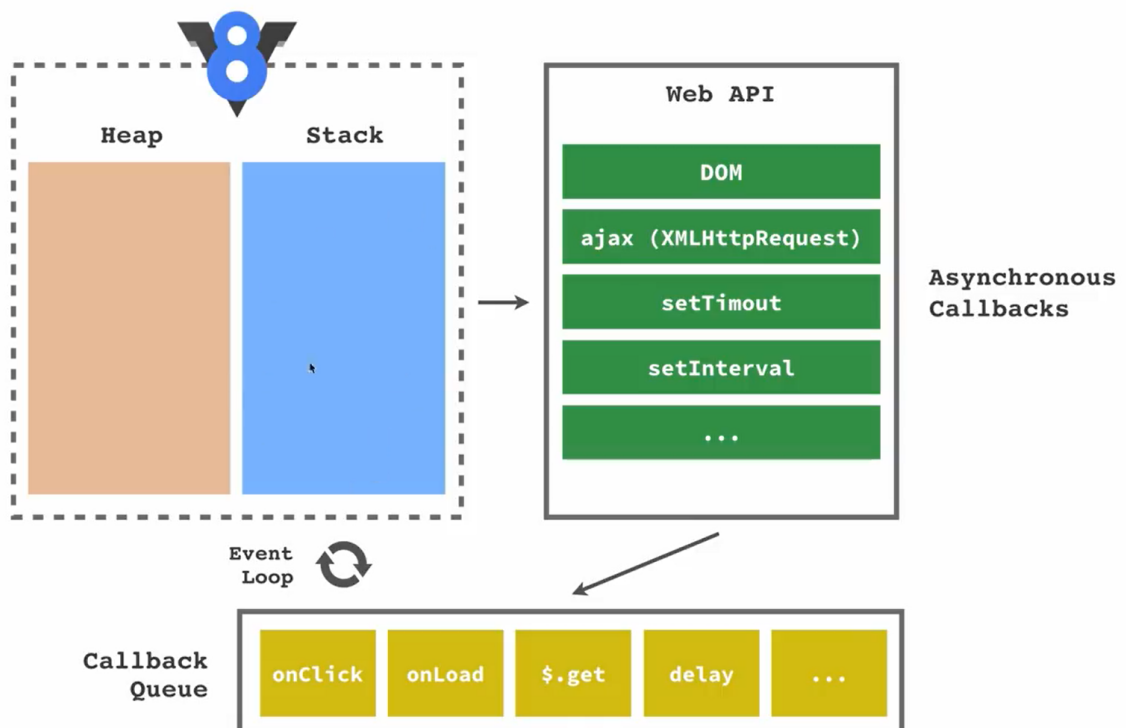- **Concurrent vs Parallel**
  Lingkungan eksekusi 'task'

deklarasi variabel, function dan konsep hositing berada di heap

eksekusi function dan variabel ada di stack

konsep asynchronous berada di stack

http://latentflip.com/loupe/
by. Phillip Roberts

http://latentflip.com/loupe/?
code=Y29uc29sZS5sb2coInNhdHUiKTsKc2V0VGltZW91dChmdW5jdGlvbiAoKSB7CiAgICBjb25zb2xlLmxvZygiZHVhIik7Cn0sN

don't block the event loop!