

Bootstrap---version 4.6

It is a ready library used for better formatting of our pages, Instead of we writing CSS, we may use ready classes available in bootstrap

Similar to bootstrap some other libraries are there, semanticJs, angular Material

To download nodejs

<https://nodejs.org/en/download>

and run the file, follow the steps to install it, and then check version

```
c:\system32>node -version
```

```
node 20.9
```

What is nodejs

it's a server side javascript

It single threaded, non blocking, server side javascript library.

nodejs is comprised of V8 JavaScript engine + libuv(c++ library)

libuv library provides the facility of multithreading, filehandling, networking, timers to nodejs.

In nodejs, there exists a thread pool, which has 4 threads by default, but it can be increased upto 128.

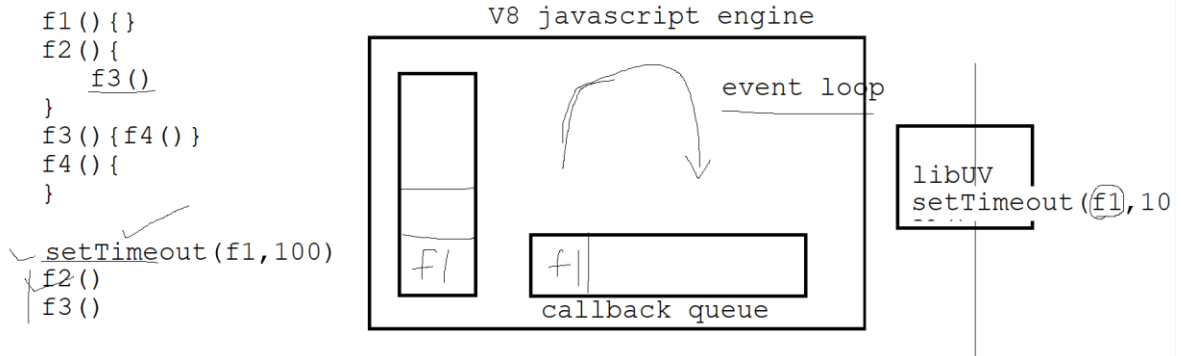
to read the event loop in detail

<https://nodejs.org/en/learn/asynchronous-work/event-loop-timers-and-nexttick>

`process.nextTick()` -has higher preference, the callback in this function gets executed before even event loop starts

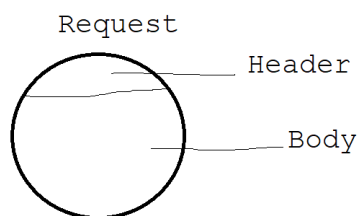
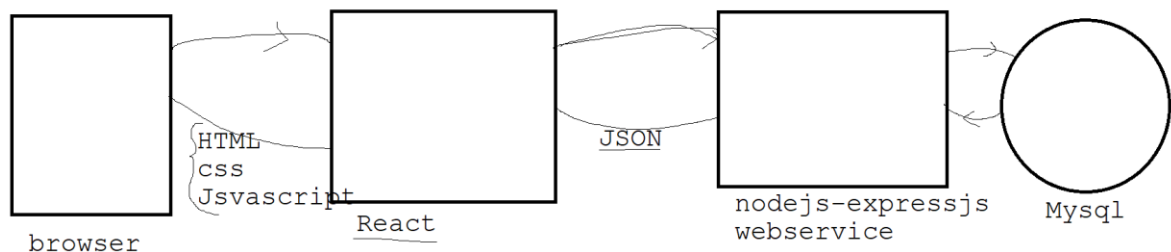
the sequence in which event loop checks the callback, It will continuously keep on executing, unless there is no pending call back is there.

1. timer callbacks
2. `setImmediate`
3. file handling code(i/o polling)
4. closing callbacks



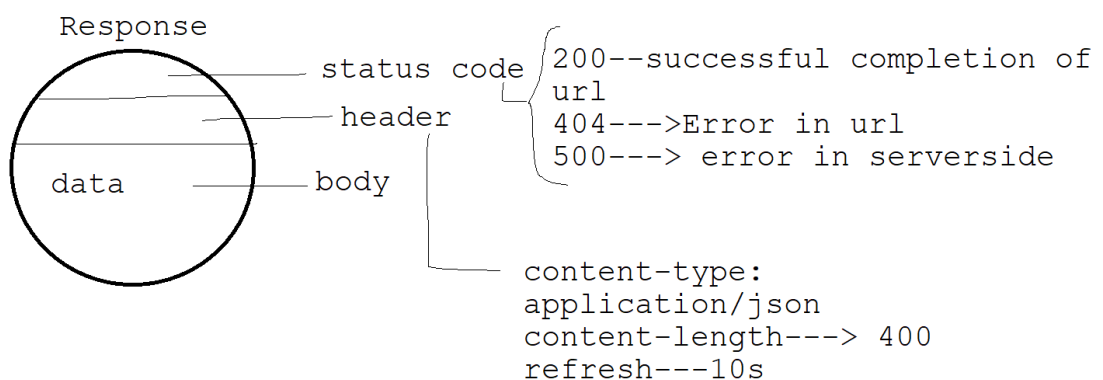
Web application

Is a serverside code, which converts data into html format, and output will be visible in the browser



GET---> then the data will be sent via querystring
the request body will be empty

Post---> the data will be sent via body of the request object



Nodejs Modules

D:\Web programming\Acts march24\nodejsdemos>node

It opens REPL(Read evaluate print loop)

In nodejs there are few built in objects process, global, console