

Introduction to node.js

Javascript engine

what is V8

→ V8 is google's open source high performance Javascript written C++ used in ~~google~~ google chrome open source browser from google

node.js with V8

Javascript



node.js → V8 → just path of C++ code



machinecode

* global objects

→ when we write the global object is the window object and we could access properties and method on that window object such as alert scroll or set timeout etc.

~~node~~

module exports:

module exports are the instruction that tells node.js which bits of code (functions, objects, string etc). to "export" from a given files are allowed to access the exported code

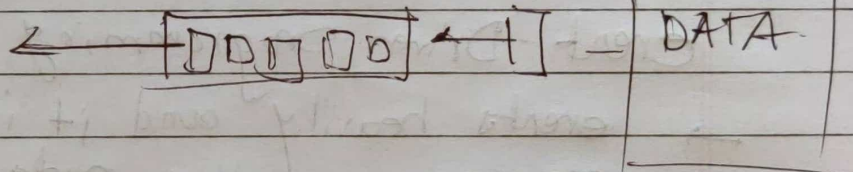
require() :- is build in function to include external modules that exist in separate files.

↳ basically reads a javascript file. executes it and then proceed to return the export of file

~~buff~~ buffer →

~~data~~

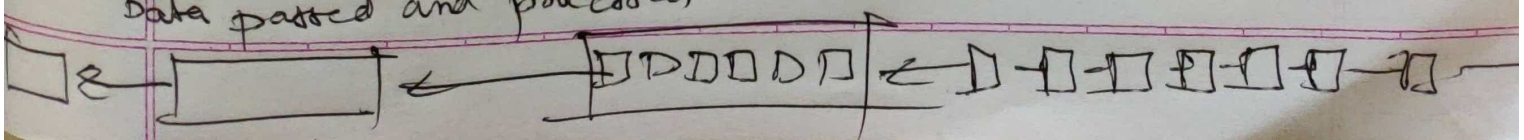
data position



STREAM -

Stream is an ~~extreme~~ ^{is} of data flows over time one place to another. So we have some kind of data source over here and transferring that to the client and the data flows down this stream into the buffer right which collect small chunk of data together then when the buffer is full it passes that chunk down the stream to be processed and sent to the clients. So you

data passed and processed



what is callback?

→ callback is an asynchronous equivalent for a function. A callback function is called at the completion of a given task. node makes heavy use of callbacks. All the APIs of node are written in such way that supports callbacks.

eg a function to read a file may start reading file and return the control to the execution environment immediately so that the next instruction can be executed,

→ node.js

Event-Driven programming

→ events heavily and it is also one of the reasons why node.js is pretty fast compared to other similar technologies.

As soon as node starts its server, it simply initiates its variable, declare function and simply waits for the event to occur.

There is generally a main loop that listens for events and then ~~function~~ triggers a callback function when one of these events is detected.

~~arene emitter~~ class

block & non-blocking

→ blocking it refers to the blocking of further operation. until the current operation finishes. blocking methods are executed synchronously. & synchronously means that the program is executed line by line.

→ non-blocking It refers to the program that does not block the execution of further operations.

→ non-blocking methods are executed asynchronously. Asynchronously means that the program may not necessarily execute line-to-line.

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express :-

express is a minimal and flexible node.js web application framework that provides a robust set of features to develop web & mobile applications.

body-parser :- This is node.js middleware for handling JSON, raw, text and URL encoded form data.