

## → Node JS ←

\* Node JS : —

Node JS is not a programming language. It is a runtime environment which runs the code of the Javascript with the help of V8 engine.

Nodejs is an open source and cross platform runtime environment that allows us to use javascript to develop server side applications.

Every web browser have a javascript engine that takes javascript code and compiles it to machine code.

For example —

Firefox uses SpiderMonkey and  
Google Chrome uses V8 engine.

Because browsers use different Javascript engine, sometimes, you will see that Javascript behaves differently between the browsers.

In 2009, Ryan Dahl, the creator of Nodejs, took the V8 engine and embedded it in an application that could execute Javascript on the server.

- Node.js is single threaded. It means that each process has only one thread of execution.

→ Node.js uses Non-blocking I/O

Non-blocking means that we can make a request while doing something else and then, when this request is finished, a callback will execute to handle the result.

→ Asynchronous programming

Asynchronous programming is a key feature of Node.js. Node.js provides several mechanisms for handling asynchronous code, including callbacks, promises, and async/await.