

Namaste Node.js

Chapter - 01 - Introduction to Node.js

Q. What is Node.js?

A) i) Node.js is a JavaScript runtime environment built on Chrome's V8 JavaScript engine.

ii) Node.js made possible for developers to use JavaScript to write a) command line tools b) server side scripting.

iii) It made possible to use only one language (JavaScript) for both server as well as client side programming thus unifying web-application development around a single programming language.

iv) Node.js made possible to run and execute JavaScript code outside a web browser.

* i) Node.js has an event-driven architecture capable of asynchronous (non-blocking) I/O. (this very property make Node.js popular)

Whenever there is Javascript is in use,
there should be JS Engine for running the
JS code.

↳ History of Node.js

2009



- Ryan Dahl (creator of Node.js)

↳ start developing with SpiderMonkey

(Firefox JS Engine)

↳ After 2 days, he adopted Chrome
V8 JS engine

- Joyent (a company)

→ also want to JS on server-side and
at the same time they were working
on the same.

→ they get fascinated by the Ryan Dahl's
idea and invited him to work with
them on Node.js project and we will
fund it.

→ Ryan Dahl agrees becomes the employee of
Joyent and they were the first to
use Node.js (correctly web.js) in their
projects.
originally named by Dahl

web.js → creates web server

Node.js (name change when Dahl realises web.js can be much more)

Q. What the problem Node.js solved?

A) → Earlier, most of the tools which are used to create HTTP servers are blocking in nature (e.g., Apache HTTP server, ASP.NET classic, Java servlets) (can't handle many simultaneous connections) (consumes one thread per request)

→ Node.js becomes the non-blocking as well as single threaded.
(many simultaneous connection without consuming newer threads.)

2009

2010

Ryan Dahl
(Node.js)

NPM (Joyent)

→ Node Package Manager
→ package manager for node
(a registry) where a developer can add package for different functional capabilities
(e.g., axios, mongoose)

→ popularized Node.js

2009 Node.js
2010 NPM
2011

→ earlier Node.js has only macOS and linux support.

→ Joyent and Microsoft worked together to make Node.js accessible in Windows as well.
(much vast developer community!)

2009 2010 2011 2012

Node.js

NPM

Windows support

- Ryan leaves Node project
- npm creator (Isaac) becomes Node.js lead
- development in Node project becomes very low.

2014

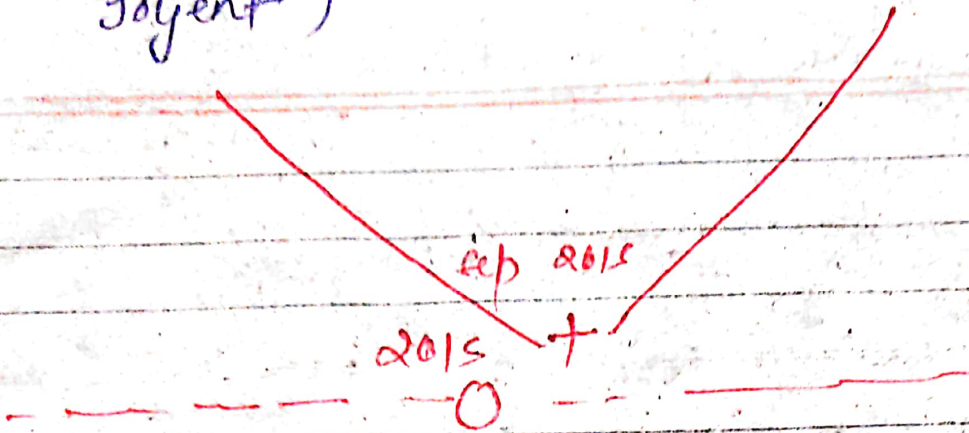
→ a developer created a fork of Node.js named **IO.js** (becoming fed up with slow release of Node.js version)

→ two Node.js versions are up and running (with different release cycles and versions).

Drama building up

→ Node.js
(maintained by
Joyent)

io.js
(Fedor)



→ Node.js foundation gets created
and merged these both versions
which is currently in use.

2019

→ JS Foundation + NodeJS Foundation

→ JS Foundation and NodeJS Foundation gets
merged to become openJS Foundation which
currently managing Node.js project.