

What is Node? How it works
How we are going to use it?
Various functionality inside nodejs
File system
Module system
Server creation
NPM and package.json

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What is node.js?

1. Javascript running environment.
2. It is built on Chrome's V8 engine
3. Allows you to create async and scalable backend-server side applications

Sync operation : till the time the result is processed
command will not move to the next executing line
async operation: It will move to the next executing line,
without waiting or halting the execution flow

Blocking and Non-blocking operation (Data computation/calculating console.log)
Blocking: File operations, database operation , I/O streams operation

```
console.log(<<printing from file">>)  
console.log(1+2)
```

when we write nodejs is used for async applications
that means nodejs can efficiently handle blocking operation
(callbacks, promises, async-await): to handle the blocking operation

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it open source collection of all libraries and packages which can be used along side
nodejs to make the application efficient and optimised or even
add extra functionality to the applications
Note: You can even contribute to NPM by creating your own package and publish it

5. Nodejs has a large community support
6. Nodejs is single threaded

Core where mostly Nodejs is used: in creating Realtime application
Realtime application are basically your streaming, chat applications
where there are high chance of async data exchange

How Nodejs Work Internally:

Nodejs make use of "Single Thread Event Loop Model" for its execution:

1. Nodejs uses a single thread
thread as a smallest unit for the execution of program

Beyond Basic course:

https://lex.infosysapps.com/en/app/toc/lex_auth_0130836240131522569303/overview

current version of node: 15.9

Stable version: 14.15.5

Versioning of Package or a app

- 14: <first position> : a major change: Syntax change, Complete revamp, lot of extra functionality
15:<second position>: minor change : adding functionality or performance optimization
5: <third position>: bug fix, security patch update