

Node - NodeJS – Introduction

Q1. What is Node.js? Where can you use it?

Node.js is an open-source, cross-platform JavaScript runtime environment and library for running web applications outside the client's browser. Developers use Node.

Node.js is an open source server environment

Node.js is free

Node.js runs on various platforms (Windows, Linux, Unix, Mac OS X, etc.)

Node.js uses JavaScript on the server

Q2. Explain callback in Node.js.

Node.js callbacks are a special type of function passed as an argument to another function. They're called when the function that contains the callback as an argument completes its execution, and allows the code in the callback to run in the meantime. Callbacks help us make asynchronous calls.

Q3. What are the advantages of using promises instead of callbacks?

They are composable, unlike callbacks, therefore we can avoid callback hells. You can easily execute code with Promise. all when multiple responses are returned. You can wait for only one result from concurrent pending promises with the help of Promise.

asynchronous operations where callbacks can create callback hell
JavaScript Promise are easy to manage when dealing with multiple
leading to unmanageable code.

Q4. What is NPM?

npm stands for Node Package Manager. It's a library and registry for JavaScript software packages. npm also has command-line tools to help you install the different packages and manage their dependencies. npm

is free and relied on by over 11 million developers worldwide

Q5. What are the modules in Node.js? Explain

In Node.js, **Modules** are the blocks of encapsulated code that communicate with an external application on the basis of their related functionality.

Modules can be a single file or a collection of multiple files/folders. The reason programmers are heavily reliant on modules is because of their reusability as well as the ability to break down a complex piece of code into manageable chunks.

Modules are of three types:

- Core Modules
- local Modules
- Third-party Modules

Core Modules: Node.js has many built-in modules that are part of the platform and come with Node.js installation. These modules can be loaded into the program by using the **required** function.

```
const http = require('http');  
http.createServer(function (req, res) {  
    res.writeHead(200, { 'Content-Type': 'text/html' });  
    res.write('Welcome to this page!');  
    res.end();  
}).listen(3000);
```