

## Interview question about NodeJs

### 1. What is Node.js?

Node.js is an open-source, cross-platform JavaScript runtime environment, which is developed on Chrome's V8 engine.

Node.js is usually used for large-scale application development and other server-side web applications.

### 2. How does Node.js work?

Node.js is a virtual machine that uses JavaScript as its scripting language and it works on a single-threaded event loop and a non-blocking input/output, which can handle higher requests.

### 3. What is the purpose of Node.js?

- Real-time Web Applications
- Network Applications
- Distributed systems
- General purpose applications

### 4. What are the benefits of using Node.js?

- Node.js is generally very fast.
- It is very easy to build scalable network programs.
- Asynchronous everything
- It provides no buffering. Its applications never buffers any data.

### 5. What is Callback in Node.js?

A callback function is called when a task is completed. It allows you to run other code by preventing any kind of blocking. Node.js heavily relies on callback functions.

### 6. What is a V8 engine?

V8 engine is an open-source JavaScript engine for Google Chrome. Its main work is converting scripts to machine code without producing intermediate code.

### 7. What is NPM?

Node Package Manager(NPM) is responsible for managing all packages and modules for node.js. Npmjs.com hosts thousands of free packages to download and use.

- The most commonly used libraries are ExpressJs and MongoDB.

### 8. What is package.json?

It is a file which basically contains metadata of the project that we are working on. Also we can tell package.json is the properties of a package.

### 9. What is the Event loop in Node.js and how does it work?

The Event loop allows node.js to perform non-blocking I/O operations. It is a core bone for Node.js. It waits for any tasks to be given, when it finds a task, executes it and then waits for another task to receive.

**10. What is the difference between JavaScript and Node.js?**

- JavaScript is a scripting language which writes scripts on the websites, where Node.js is a cross-platform runtime environment.
- JavaScript can only run in browsers, Node.js can run outside of the browser.
- JavaScript is capable of adding HTML tags where Node.js can't.
- JavaScript is basically used for Client-side frontend development but Node.js is used for Server-side development.

**11. What do you understand about event-driven programming?**

An event-driven programming means an event has been triggered by a function. Like typing a key or clicking a mouse. This event triggers when the elements are executed.

**12. What is the Express.js package?**

It is a web application framework which is used for building mobile and web applications.

**13. What is callback hell in node.js?**

Callback hell occurs when plenty of nested callbacks happen. Callback hells make codes very difficult to read and manage.

By using async / await we can deal with callback hell.

**14. What do you understand by async and await?**

Async which makes a function return a Promise. And await, wait for a promise.

**15. Is node.js single threaded or multi threaded?**

Node.js is Single threaded.