

Node.js Interview Questions (25 One-Liners)

Q1. What is Node.js?

Node.js is a runtime environment that allows JavaScript to run on the server.

Q2. Is Node.js single-threaded?

Yes, Node.js uses a single-threaded event loop with non-blocking I/O.

Q3. What is the event loop?

It handles asynchronous operations by executing callbacks in a queue.

Q4. What is non-blocking I/O?

Operations that do not block the execution of other code while waiting for completion.

Q5. What is npm?

Node Package Manager used to manage Node.js packages and dependencies.

Q6. What is a module in Node.js?

A reusable block of code that can be imported using `require()` or `import`.

Q7. What is the difference between `require()` and `import`?

`require()` uses CommonJS, while `import` uses ES Modules.

Q8. What is `package.json`?

A file that contains project metadata, scripts, and dependencies.

Q9. What is Express.js?

A minimal and flexible web framework for Node.js.

Q10. What is middleware in Express?

Functions that execute during the request-response cycle.

Q11. What is REST API?

An architectural style for building APIs using HTTP methods.

Q12. What are HTTP methods?

GET, POST, PUT, PATCH, and DELETE.

Q13. What is callback hell?

Nested callbacks that make code difficult to read and maintain.

Q14. How do you avoid callback hell?

By using Promises or `async/await`.

Q15. What is a Promise?

An object representing the eventual completion or failure of an async operation.

Q16. What is `async/await` in Node.js?

Syntax for writing asynchronous code in a synchronous-like manner.

Q17. What is `fs` module?

A built-in module used to work with the file system.

Q18. What is a stream in Node.js?

A way to handle data piece by piece instead of loading it all at once.

Q19. What is Buffer?

A temporary storage for handling binary data.

Q20. What is CORS?

A security feature that controls resource sharing between different origins.

Q21. What is JWT?

JSON Web Token used for secure authentication.

Q22. How do you handle errors in Node.js?

Using try-catch blocks, callbacks, or Express error middleware.

Q23. What is clustering in Node.js?

Running multiple Node processes to utilize multi-core CPUs.

Q24. What is environment variable?

A variable used to store configuration values like API keys.

Q25. What is PM2?

A process manager used to run and monitor Node.js applications.