AI Response:

Node.js is a powerful JavaScript runtime built on Chrome's V8 JavaScript engine

1. **Event-Driven Architecture**
Node.js is event-driven, meaning that it responds to events emitted by various ob

Key Components:
- **Event Loop**: The core of Node.js. It manages the execution of code and han
- **EventEmitter**: A class that is part of Node.js which allows objects to send an

2. **Non-Blocking I/O**
Node.js uses non-blocking, asynchronous I/O operations. This means that instea

Key Features:
- **Callbacks**: Functions passed as arguments that execute when an operation
- **Promises**: Objects representing the eventual completion (or failure) of an as
- **async/await**: Syntax introduced in ES2017 that allows writing asynchronous

3. **Single-Threaded Model**
Although Node.js uses a single thread to handle requests, it can handle many co

4. **Modules**
Node.js uses a module system based on CommonJS, allowing developers to org

Key Concepts:
- **Module**: A self-contained block of code that can be exported and imported i
- **npm (Node Package Manager)**: A package manager for JavaScript that allo

5. **Built-in Libraries**
Node.js comes with a set of built-in libraries, referred to as "core modules," that p

- **HTTP**: To create web servers.
- **File System (fs)**: To interact with the file system.
- **Path**: To handle and transform file paths.
- **Events**: To handle events in a consistent manner.

6. **Frameworks**
Although Node.js provides a core set of APIs, many frameworks build on top of it

- **Express.js**: A minimalist web framework for building web applications and A
- **NestJS**: A framework for building efficient, scalable Node.js server-side app

7. **Middleware**
In the context of frameworks like Express.js, middleware functions are functions