

ASSIGNMENT-1

Q-1 why is Node.js Preferred for real time Applications?

Ans - Node.js is an open-source, server side runtime environment that allows developers to run Javascript outside the Browser, It is built on Google's V8 engine, making it fast and efficient.

It is Preferred for real-time applications because

- ① Non-Blocking I/O - Handles multiple requests at the same time, making it very fast
- ② Single Threaded - Uses an event-driven architecture to manage tasks efficiently.
- ③ Cross-Platform - Works on Windows, MacOS and Linux
- ④ Node Package Manager (NPM) - Provides thousands of free libraries to speed up development
- ⑤ WebSockets Support - Ideal for real-time applications like chat apps and online games
- ⑥ Scalable - Can handle a large number of users without slowing down.

This makes Node.js Perfect for chats, online gaming and live updates