NodeJS is a runtime environment built on V8 JavaScript engine, which was developed by Google, designed for building fast and scalable network applications (Satheesh, D’Mello and Krol, 2015). It allows JavaScript to be executed server-side, enabling developers to build web servers and other backend services using JavaScript. One of NodeJS's primary features, according to Satheesh, D'Mello, and Krol (2015), is its event-driven and non-blocking I/O model, which makes it ideal for effectively managing several concurrent connections. To increase online application performance and scalability, NodeJS runs on a single thread as opposed to typical servers like PHP, ASP.NET, Java-based… This allows NodeJS servers to handle thousands of concurrent requests without consuming excessive server-side resources. (Satheesh, D’Mello and Krol, 2015). NodeJS also benefits from an extensive package ecosystem, managed via npm (Node Package Manager), which provides a vast range of modules to simplify server development. The authors also point out that one of the main motivations for the development of Node.js was to facilitate real-time web applications; for example, WebSockets, a widely used feature in modern browsers (Satheesh, D’Mello and Krol, 2015). In conclusion, NodeJS servers are ideal for building high-performance, scalable applications, like RESTful APIs, that require many concurrent I/O operations. In the author’s opinion, the NodeJS server will be an effective tool for developing full-stack web applications.

Refs

Satheesh, M., D’Mello, B.J. and Krol, J. (2015) *Web Development with Mongodb and Nodejs Second Edition*. Packt Publishing.