What is Node.js? A Complete Guide for 2023

Imagine a world where JavaScript, the language of the web, has broken free from its browser-based shackles. A world where programmers can write code once and deploy it anywhere, all while using the same language. This is the world of Node.js, a powerful and versatile runtime environment that has revolutionized how we build server-side applications.

In this comprehensive guide, we'll explore what Node.js is, how it works, and why it has become such a popular choice for developers around the globe. Put on your safety belts because we're about to go deep into the mystery of what is node.js!

What is Node.js?

Beginning with what is node.js. So, node.js is a free and open-source cross-platform JavaScript runtime environment allowing developers to run JavaScript code outside a web browser. It was first introduced in 2009 and is built on the V8 JavaScript engine created by Google for their Chrome browser.

Node.js is widely used for building server-side applications. It enables developers to use the same language on both the client and server sides, allowing for more excellent code reusability, faster development times, and easier maintenance.

While its single-threaded architecture limits the number of requests, it can process simultaneously. Its asynchronous event-driven I/O model makes it ideal for processing high volumes of requests.

Why is NodeJs Used?

So, coming straight to the question: what is node.js used for? Node.js is used for several reasons.

1.   The first major benefit is that it unifies the client and server sides of development under the same language, JavaScript. This allows for greater code reuse and shorter development cycles.

2.   Secondly, it is highly scalable and efficient for handling large requests due to its

asynchronous event-driven I/O model and single-threaded architecture.

3.   Thirdly, it has a vast ecosystem of third-party packages available through its package manager, npm, making integrating with other tools and libraries easy. So this is what node.js used for.