**What is Node.js:**

Node.js is a platform built on Chrome's JavaScript runtime for easily building fast and scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Node.js applications are written in JavaScript, and can be run within the Node.js runtime on OS X, Microsoft Windows, and Linux. Node.js also provides a rich library of various JavaScript modules

which simplifies the development of web applications using Node.js to a great extent.

Node.js = Runtime Environment + JavaScript Library

**Features of Node.js:**

**Asynchronous and Event Driven** − All APIs of Node.js library are asynchronous, that is, non-blocking.

**Very Fast** − Being built on Google Chrome's V8 JavaScript Engine, Node.js library is very fast in code

**execution. Single Threaded but Highly Scalable** − Node.js uses a single threaded model with event

**looping. No Buffering** − Node.js applications never buffer any data. These applications simply output the data in chunks

**License** − Node.js is released under the MIT license.

**Verify installation: Executing a File**:

Create a js file named main.js on your machine (Windows or Linux) having the following code.

/\* Hello, World! program in node.js \*/

console.log("Hello, World!")

**Now execute main.js file using Node.js interpreter to see the result:**

$ node main.js

If everything is fine with your installation, this should produce the following result:

Hello, World!

**Who Used Node.js:**

eBay, General Electric, GoDaddy, Microsoft, PayPal, Uber, Wikipins, Yahoo!, and Yammer to name a few.

**Where to Use Node.js:**

I/O bound Applications

Data Streaming Applications

Data Intensive Real-time Applications (DIRT)

JSON APIs based Applications

Single Page Applications

**Where Not to Use Node.js:**

It is not advisable to use Node.js for CPU intensive applications.