**Extra Credit Weekend: Node.js Tutorial for Beginners: Learn Node in 1 Hour | Mosh**

Node.js is an open source, cross-platform runtime environment for executing JavaScript (JS) code outside of a browser. Used to build back-end services or APIs that power client applications such as web apps running inside a browser or a mobile app running on a mobile device, Node.js is ideal for prototyping and agile development which delivers superfast and highly scalable services. Node.js is not a programming language and uses JS so there is no need to learn a new programming language. Corporate giants such as PayPal, Uber, and Netflix employ Node.js because of its ability to deliver 33% fewer lines of code, 40% fewer files, 35% faster response time, and its ability to deliver 2x request per second.

Prior to 2009 the only way to run JS code was inside of a browser. In 2009 Ryan Dahl invented Node.js using Google’s Chrome V8 engine, the fastest running JS engine and embedded V8 inside a C++ program plus added some additional modules or objects that give developers capabilities not available inside a browser and named it Node. As a single thread, non-blocking, asynchronous architecture, Node.js handles multiple client server requests while continuing to monitor or listen for event queues. It should not be used for CPU intensive apps that require Node to wait for requests. Node is however ideal for I/O intensive applications which when interfaced with Node does not need to wait for the database to return the data.

In Node.js every file is a module and the variables (var) and functions defined in that file are scoped or private (Are not available outside that module). However, a var and functions can be made public only when you export and define it to a log function like so: **module.exports.log = log**. To load a module, use the ‘require’ function () that takes one argument ex. **var logger = require(‘./logger’);**. This is just a small fraction into the world of Node.js, to view the video tutorial in its entirety go to: <https://www.youtube.com/watch?v=TlB_eWDSMt4&t=1s> . To learn more about Node.js or to download, go to: <https://nodejs.org/en/> .