

## Node.js Instructions

The three points of reference I used for all of my understanding of Node.js were <https://nodejs.org/en/about/>, the Node.js website's information page, <https://www.tutorialspoint.com/nodejs/>, an interactive tutorial page, and, a random but very helpful [blog](#) by Brandon Cannaday, co-founder of Losant.

The simplest way to use Node.js is with the “node” command on the terminal. Mac users can download Node.js with homebrew with just the command “brew install node,” or if this is not working find the correct version at <https://nodejs.org/en/download/> for your Mac or Windows (the binaries for Linux are also provided for x86 and ARM) and follow the instructions of the installer. If everything worked, typing “node -v” in the terminal will produce its current version, eg. “v6.9.4”. It is also important that NPM was installed during this process as it will be useful later, so also run the command “npm -v” after installing for the same purpose. Here you can install express just with “npm install express”.

After installation, there are now two ways to run JavaScript. One option is just executing the command “node”, which will open a shell in the terminal, but the more useful option is with a “.js” file, eg. “node example.js”, which will execute that JavaScript file. Any JavaScript file can be compiled in the node environment. For attempting Node.js's more useful features like handling I/O such as reading files or setting up a basic HTTP server, check the link Cannaday's blog. It may also be helpful to understand that Node.js is actually single-threaded and runs through code using what is called “asynchronous callbacks”, which means when it can move onto the rest of the JavaScript code while previous parts are finishing or waiting to be called.