Node.js

Introduction

Node.js is an open-source run-time environment developed by Ryan Dahl in 2009, used for creating server-side applications using Javascript. This JavaScript framework is built on Google Chrome's JavaScript Engine, otherwise known as V8 Engine, and runs on single-threaded, non-blocking and asynchronous programming.

JSON Package

The package.js file is a required file for a Node.js project and can be initialized from the command line using `npm init`. This goes in the root of your application, and tells npm how your package is structured and what to do to install it. The file also contains details of your application, such as its name, version, entry point to the app, author, license, and dependencies.

Modules

Node.js Package Manager, or `npm`, is used to install node modules created by the community (all modules can be searched for on npmjs.com, and are installed into the node_modules folder). If dependencies have already been specified in the package.json file, npm will check the file for the list of dependencies before downloading it with `npm install.`

Downloading/Installing A Module
- `npm install moduleName`
    - The module will be installed in the node_modules folder.
- `npm install moduleName -g`
    - The module will be installed globally in your system, so you can access it not only from the directory of the project.
- `npm install moduleName --save`
    - The module will be installed, and it will be written as a dependency in the package.json file.

Popular modules
1. Express – Web development framework
2. Connect – Extensible HTTP server framework, the baseline for express
3. Socket.io – Server-side component for websockets

4. Pug – Template engine inspired by HAML
5. Mongo/Mongoose – Wrappers to interact with MongoDB