

Task 1

Project Initialization

What is npm?

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npm is two things: first and foremost, it is an online repository for the publishing of open-source Node.js projects; second, it is a command-line utility for interacting with said repository that aids in package installation, version management, and dependency management. A plethora of Node.js libraries and applications are published on npm, and many more are added every day. These applications can be searched for on <https://www.npmjs.com/>. Once you have a package you want to install, it can be installed with a single command-line command.

Let's say you're hard at work one day, developing the Next Great Application. You come across a problem, and you decide that it's time to use that cool library you keep hearing about - let's use Caolan McMahon's [async](#) as an example. Thankfully, npm is very simple to use: you only have to run `npm install async`, and the specified module will be installed in the current directory under `./node_modules/`. Once installed to your `node_modules` folder, you'll be able to use `require()` on them just like they were built-ins.

Let's look at an example of a global install - let's say `coffee-script`. The npm command is simple: `npm install coffee-script -g`. This will typically install the program and put a symlink to it in `/usr/local/bin/`. This will then allow you to run the program from the console just like any other CLI tool. In this case, running `coffee` will now allow you to use the `coffee-script` REPL.

Another important use for npm is dependency management. When you have a node project with a [package.json](#) file, you can run `npm in-`

stall from the project root and npm will install all the dependencies listed in the package.json. This makes installing a Node.js project from a git repo much easier! For example, `vows`, a Node.js testing framework, can be installed from git, and its single dependency, `eyes`, can be automatically handled:

Example:

```
git clone https://github.com/cloudhead/vows.git
cd vows
npm install
```

After running those commands, you will see a `node_modules` folder containing all of the project dependencies specified in the package.json.