

# NPM

Wednesday, March 16, 2022 2:34 PM

## Another Major Reason to use NodeJS is NPM (Node Package Manager)

- Why do you use smart phone?
  - To Make phone call?
    - Even non-smart phone can do it.
  - Web browsing.
- Which is the most important app in your phone?
  - **Playstore.**
    - **This is the main reason for having a smart phone!**
    - **This is what makes your phone smart and extensible**
      - **You get everything else from here!**

## NPM is the 'playstore' of NodeJS ecosystem

- **NPM is a like a huge market place for components needed for web application development**
- **It includes libraries like**
  - **JavaScript libraries**
    - **Browser Libraries**
      - React
      - Angular
      - Vue
      - JQuery
    - **Server Side libraries**
      - Express
      - Mongo
    - **Testing library**
      - Jest
      - Karma
  - **Executable libraries**
    - **Project Buiding tools like**
      - Webpack
      - Gulp
      - Grunt
    - **Transpilers like**
      - Typescript
      - Babel
    - **Runtimes like**
      - Liveserver
      - Nodemon
    - **Testing Frameworks**
      - Karma
      - Jasmine
      - Jest
  - **Non Javascript libraries**
    - **CSS**
      - Bootstrap
      - Font-awesom
  - ... (More than 6,50,000 components existed in 2018)
- **For more details visit <https://npmjs.org>**

### IMPORTANT!

50% + People use NodeJS, not because they want to write non-browser based application, but because they want to use NPM which is a part NodeJS

## NPM Also provides a simple project management structure

- **All projects we create today with node ecosystem, we create as an npm project**
  - **Including**
    - **Frontend projects like**
      - React
      - Angular
    - **Mobile development projects like**
      - Flutter
      - ReactNative
- **A Node project is simply a folder with a special package.json and node\_modules folder**

## NPM Project

The screenshot shows a Windows File Explorer window on the left and a terminal window on the right. The File Explorer is in the directory `Corporate > 202203-infogain-react > simple-node-project`. It shows a file named `package.json` with a blue arrow pointing to it. The terminal window shows the output of the `npm init` command. It prompts for a package name, version, description, entry point, test command, git repository, keywords, author, and license. The user has entered `(simple-node-project)` for the package name, `1.0.0` for the version, and `index.js` for the entry point. The terminal also shows the command `$ npm init --y` and the resulting `package.json` file content.

```
D:\MyWorks\Corporate\202203-infogain-react\simple-node-project>npm init
This utility will walk you through creating a package.json file.
It only covers the most common items, and tries to guess sensible defaults.

See `npm help init` for definitive documentation on these fields
and exactly what they do.

Use `npm install <pkg>` afterwards to install a package and
save it as a dependency in the package.json file.

Press ^C at any time to quit.
package name: (simple-node-project)
version: (1.0.0)
description:
entry point: (index.js)
test command:
git repository:
keywords:
author: Vivek Dutta Mishra
license: (ISC)

About to write to D:\MyWorks\Corporate\202203-infogain-react\simple-node-project\package.json:
{
  "name": "simple-node-project",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "Vivek Dutta Mishra",
}
```

