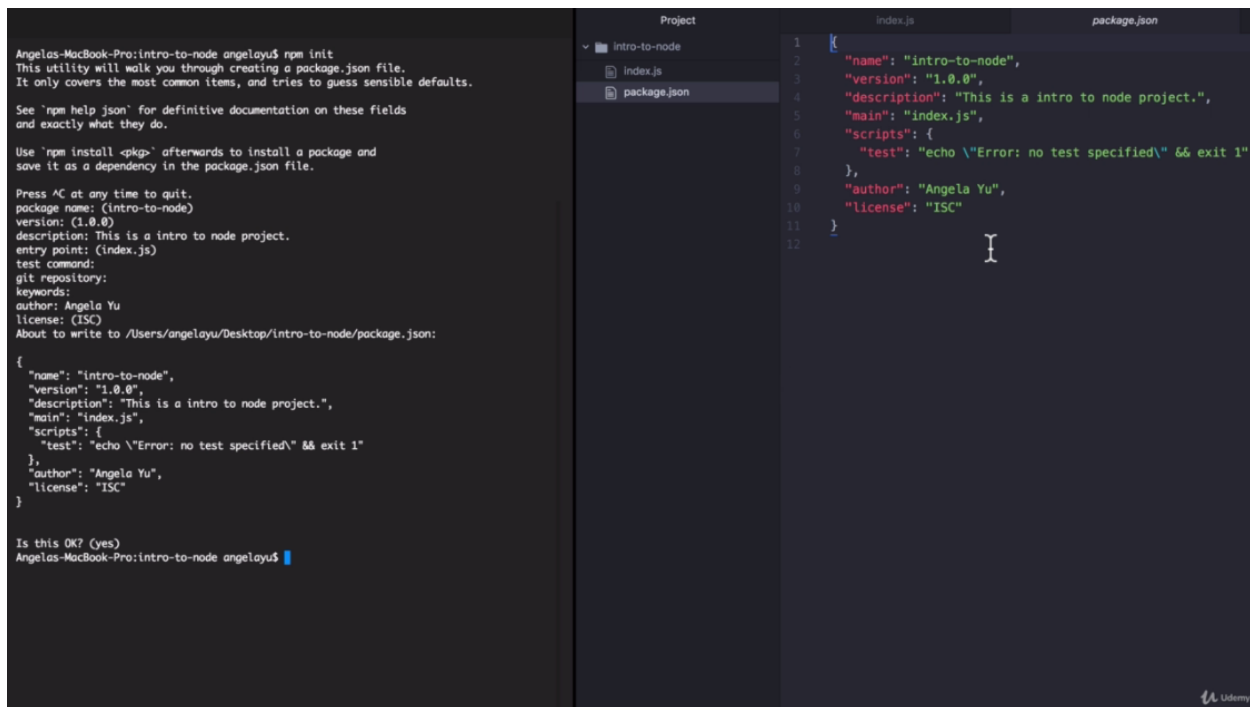


# *The NPM Package Manager and Installing External Node Modules*

**npm:** A package manager for external models that anybody can build.

A package of npm is other modules written by other body. You can add these to uses these packages. Like you are building ledger house and you want trees around your house then you can add tree package.





## Command **npm init**



Write description whatever you want.

Author : Your Name

About to write to C:\Users\M.A Computer\Desktop\intro-to-node\package.json:

```
{
  "name": "intro-to-node",
  "version": "1.0.0",
  "description": "This is a intro to node project.",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "Muhammad Ahmad",
  "license": "ISC"
}
```

Is this OK? (yes)

C:\Users\M.A Computer\Desktop\intro-to-node>

The screenshot shows a code editor with a sidebar on the left displaying a file tree for a project named 'intro-to-node'. The tree includes files 'file1.txt', 'file2.txt', 'index.js', 'index6.js', and 'package.json'. The 'package.json' file is selected and its content is displayed in the main editor area. The content of 'package.json' is a JSON object with the following properties: 'name' (intro-to-node), 'version' (1.0.0), 'description' (This is a intro to node project.), 'main' (index.js), 'scripts' (a test script that echoes an error message and exits with code 1), 'author' (Muhammad Ahmad), and 'license' (ISC). The editor's status bar at the bottom indicates the file path 'C:\Users\ahmad\Desktop\intro-to-node\package.json', the line number '12:1', and the encoding 'UTF-8 JSON'. It also shows icons for GitHub and Git (0).

```
1 {
2   "name": "intro-to-node",
3   "version": "1.0.0",
4   "description": "This is a intro to node project.",
5   "main": "index.js",
6   "scripts": {
7     "test": "echo \"Error: no test specified\" && exit 1"
8   },
9   "author": "Muhammad Ahmad",
10  "license": "ISC"
11 }
12
```

≡

```
C:\Users\ahmad\Desktop\intro-to-node>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: (intro-to-node)
version: (1.0.0)
description: This is a intro to node project.
entry point: (index.js)
test command:
git repository:
keywords:
author: Muhammad Ahmad
license: (ISC)
About to write to C:\Users\ahmad\Desktop\intro-to-node\package.json:
```

```
{
  "name": "intro-to-node",
  "version": "1.0.0",
  "description": "This is a intro to node project.",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "Muhammad Ahmad",
  "license": "ISC"
}
```

```
Is this OK? (yes) yes
```

```
npm notice
```

```
npm notice New major version of npm available! 8.15.0 -> 10.1.0
```

```
npm notice Changelog: https://github.com/npm/cli/releases/tag/v10.1.0
```

```
npm notice Run npm install -g npm@10.1.0 to update!
```

```
npm notice
```

```
C:\Users\ahmad\Desktop\intro-to-node>
```

Now package.json is created inside intro-to-node folder.

<https://www.npmjs.com>

<https://www.npmjs.com/package/package>

<https://www.npmjs.com/package/superheroes>

Install just writing the command **npm install superheroes** (**npm i superheroes**)

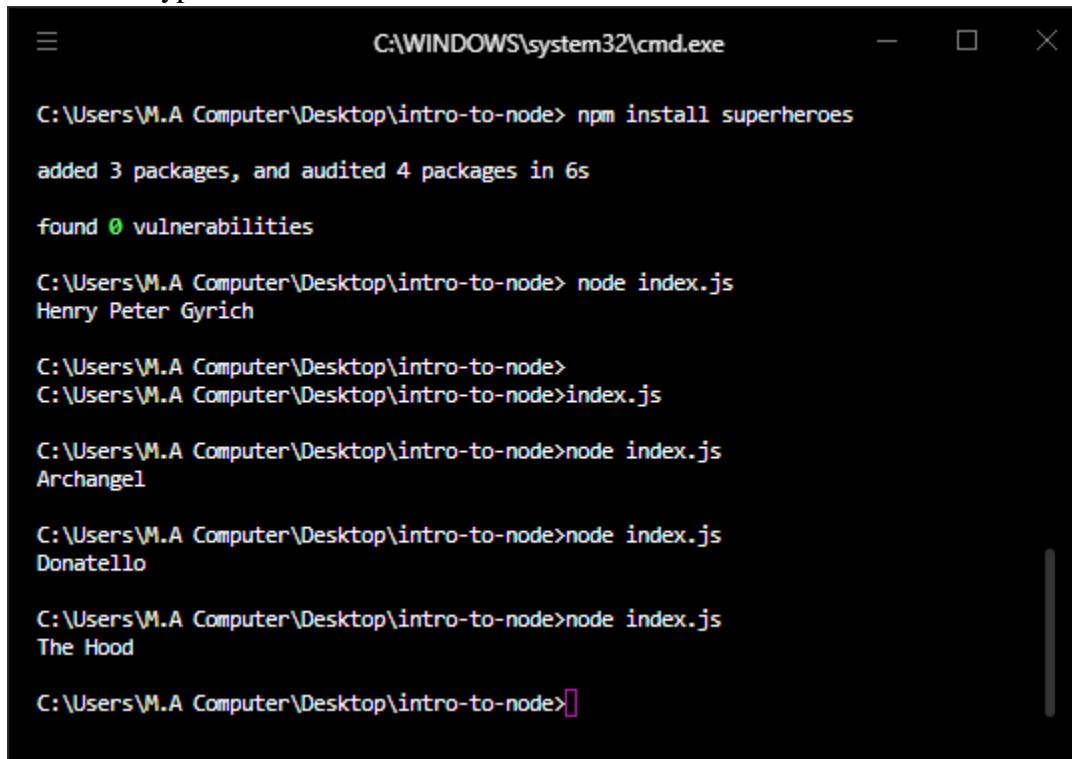
Then add usage inside index.js

```
var superheroes = require('superheroes');
```

```
var mySuperheroes = superheroes.random();
```

```
console.log(mySuperheroes);
```

and run in hyper terminal.

A screenshot of a Windows command prompt window titled "C:\WINDOWS\system32\cmd.exe". The window shows the following commands and output:  
1. Command: `C:\Users\M.A Computer\Desktop\intro-to-node> npm install superheroes`  
Output: `added 3 packages, and audited 4 packages in 6s`  
`found 0 vulnerabilities`  
2. Command: `C:\Users\M.A Computer\Desktop\intro-to-node> node index.js`  
Output: `Henry Peter Gyrich`  
3. Command: `C:\Users\M.A Computer\Desktop\intro-to-node> index.js`  
Output: `Archangel`  
4. Command: `C:\Users\M.A Computer\Desktop\intro-to-node> node index.js`  
Output: `Donatello`  
5. Command: `C:\Users\M.A Computer\Desktop\intro-to-node> node index.js`  
Output: `The Hood`  
6. Command: `C:\Users\M.A Computer\Desktop\intro-to-node>`  
The prompt is now empty.

this package is added to generate random super heroes.

**package.json:**

```
{  
  "name": "intro-to-node",  
  "version": "1.0.0",  
  "description": "This is a intro to node project.",  
  "main": "index.js",  
  "scripts": {  
    "test": "echo \"Error: no test specified\" && exit 1"  
  },  
}
```

```
"author": "Muhammad Ahmad",  
"license": "ISC",  
"dependencies": {  
  "superheroes": "^3.0.0"  
}  
}
```

### **Index.js:**

```
var superheroes = require('superheroes');  
var mySuperheroes = superheroes.random();  
console.log(mySuperheroes);
```

### **package-lock.json:**

```
{  
  "name": "intro-to-node",  
  "version": "1.0.0",  
  "lockfileVersion": 2,  
  "requires": true,  
  "packages": {  
    "": {  
      "name": "intro-to-node",  
      "version": "1.0.0",  
      "license": "ISC",  
      "dependencies": {  
        "superheroes": "^3.0.0"  
      }  
    },  
    "node_modules/superheroes": {  
      "version": "3.0.0",  
      "resolved": "https://registry.npmjs.org/superheroes/-/superheroes-3.0.0.tgz",
```

```
"integrity": "sha512-XXXzeKHMnf0rmZItYkGU803JlqYpoxvxzKFoe6k8C4bolcKfLZH716Rm4DyNJhxPTurbzDEB/QC7TXGsoei+ew==",
```

```
"dependencies": {
```

```
  "unique-random-array": "^2.0.0"
```

```
},
```

```
"engines": {
```

```
  "node": ">=8"
```

```
}
```

```
},
```

```
"node_modules/unique-random": {
```

```
  "version": "2.1.0",
```

```
  "resolved": "https://registry.npmjs.org/unique-random/-/unique-random-2.1.0.tgz",
```

```
  "integrity": "sha512-iQ1ZgWac3b8YxGThecQFRQiqgk6xFERRwHZIWeVVsqlbmgCRI0PY13R4mUkodNgctmg5b5odG1nyW/IbOxQTqg==",
```

```
  "engines": {
```

```
    "node": ">=6"
```

```
  }
```

```
},
```

```
"node_modules/unique-random-array": {
```

```
  "version": "2.0.0",
```

```
  "resolved": "https://registry.npmjs.org/unique-random-array/-/unique-random-array-2.0.0.tgz",
```

```
  "integrity": "sha512-xR87O95fZ7hljw84J8r1YDXrvffPLWN513BNOP4Bv0KcgG5dyEUrHwsvP7mVAOKg4Y80uqRbpUk0GKr8il70qg==",
```

```
  "dependencies": {
```

```
    "unique-random": "^2.1.0"
```

```
  },
```

```
  "engines": {
```

```
    "node": ">=8"
  }
}
},
"dependencies": {
  "superheroes": {
    "version": "3.0.0",
    "resolved": "https://registry.npmjs.org/superheroes/-/superheroes-3.0.0.tgz",
    "integrity": "sha512-XXXzeKHMnf0rmZItYkGU803JlqYpoxvxzKFoe6k8C4bolcKfLZH716Rm4DyNJhxPTurbzDEB/QC7TXGsoei+ew==",
    "requires": {
      "unique-random-array": "^2.0.0"
    }
  },
  "unique-random": {
    "version": "2.1.0",
    "resolved": "https://registry.npmjs.org/unique-random/-/unique-random-2.1.0.tgz",
    "integrity": "sha512-iQ1ZgWac3b8YxGThecQFRQiqgk6xFERRwHZIWeVVsqlbmgCRI0PY13R4mUkodNgctmg5b5odG1nyW/IbOxQTqg==",
    },
  "unique-random-array": {
    "version": "2.0.0",
    "resolved": "https://registry.npmjs.org/unique-random-array/-/unique-random-array-2.0.0.tgz",
    "integrity": "sha512-xR87O95fZ7hljw84J8r1YDXrvffPLWN513BNOP4Bv0KcgG5dyEUrHwsvP7mVAOKg4Y80uqRbpUk0GKr8il70qg==",
    "requires": {
      "unique-random": "^2.1.0"
    }
  }
}
```



```
}  
}  
}  
}
```

### Challenge Super Villains (supervillains)

```
Node.js v18.7.0  
  
C:\Users\M.A Computer\Desktop\intro-to-node> node index.js  
Super Hero: Carol Hines  
Super Villain: Venom  
  
C:\Users\M.A Computer\Desktop\intro-to-node> node index.js  
Super Hero: Wraith  
Super Villain: Bloody Mary  
  
C:\Users\M.A Computer\Desktop\intro-to-node> node index.js  
Super Hero: Ultimates  
Super Villain: Doctor Alchemy  
  
C:\Users\M.A Computer\Desktop\intro-to-node> node index.js  
Super Hero: Morph  
Super Villain: Morlun  
  
C:\Users\M.A Computer\Desktop\intro-to-node>
```

//Super Heroes

```
var superheroes = require('superheroes');
```

//Super Villains

```
var supervillains = require('supervillains');
```

```
var mySuperheroes = superheroes.random();
```

```
var mySupervillains = supervillains.random();
```

```
console.log("Super Hero: "+mySuperheroes);
```

```
console.log("Super Villain: "+mySupervillains);
```

<https://www.npmjs.com/package/supervillains>

install different packages and do practice more and more.