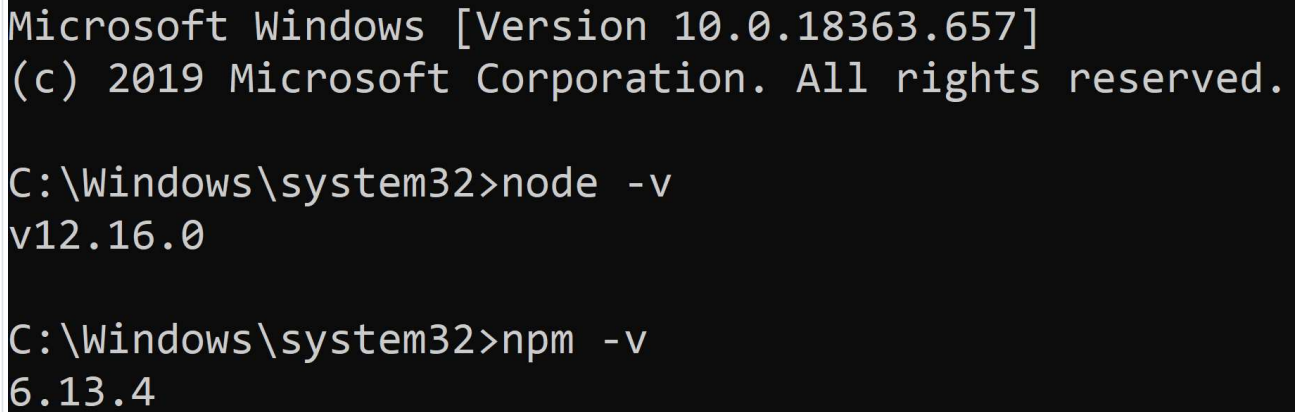


Modern JS: Installing Node.js and NPM

Open [nodejs.html](#) for the markup | Images are taken from: [JS Course by Jonas Schmedtmann](#)

Download and Install Node.js from [here](#) (download the one with "Recommended For Most Users"). After that, check if Node.js has been installed in the system properly by typing in the commands in terminal or the command prompt, as shown in the screenshot below.



```
Microsoft Windows [Version 10.0.18363.657]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Windows\system32>node -v
v12.16.0

C:\Windows\system32>npm -v
6.13.4
```

The output of those two commands shown above, should be the version numbers of Node.js and NPM as shown above. If that's not the case, then there was some problem while installation of Node.js and therefore, we might've to re-install Node.js.

After that, we now create a **package.json** file for our project using the command line. Note: We have to be in the respective project folder to create the **package.json** file. We simply type in: **npm init** command in the command prompt (or terminal) and the terminal will ask about the **project name**, **description**, **entry point**, etc as shown below in the screenshot. Fill them up as shown in the screenshot below.

```

Directory of C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project

15-02-2020 09:19 <DIR>      .
15-02-2020 09:19 <DIR>      ..
15-02-2020 09:19 <DIR>      dist
15-02-2020 09:21 <DIR>      src
                0 File(s)          0 bytes
                4 Dir(s) 157,325,271,040 bytes free

description: Forkify Project
entry point: (index.js)
test command:
git repository:
keywords:
author: Sriram Chandrabhatta
license: (ISC)
About to write to C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project\package.json:
save it as a dependency in the package.json file.
{
  "name": "forkify", to quit.
  "version": "1.0.0",
  "description": "Forkify Project",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "Sriram Chandrabhatta",
  "license": "ISC"
}

Is this OK? (yes)

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>dir
Volume in drive C has no label.
Volume Serial Number is 261A-08AE

Directory of C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project

15-02-2020 12:05 <DIR>      .
15-02-2020 12:05 <DIR>      ..
15-02-2020 09:19 <DIR>      dist
15-02-2020 12:05                238 package.json
15-02-2020 09:21 <DIR>      src
                1 File(s)          238 bytes
                4 Dir(s) 157,325,471,744 bytes free

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>

```

We can clearly see that **package.json** file has been created. We can also see the content of **package.json** file. We can see that the file reflects the data that we gave as input when creating the **package.json** file. We will get to know more about **package.json** file in-detail, a little bit later.

We will now install **Webpack** using NPM. To install Webpack, we use the following command: **npm install webpack --save-dev** in the terminal as shown below (we might see some warning(s) , but that's not to fret about. If there are errors, then we need to run the command as administrator/ superuser).


```

1  {
2    "name": "forkify",
3    "version": "1.0.0",
4    "description": "Forkify Project",
5    "main": "index.js",
6    "scripts": {
7      "test": "echo \"Error: no test specified\" && exit 1"
8    },
9    "author": "Sriram Chandrabhatta",
10   "license": "ISC",
11   "devDependencies": {
12     "webpack": "^4.41.6"
13   }
14 }

```

There are two type of Node.js packages. The first one's are libraries & frameworks, stuff like that, and the others are **development tools**. Libraries like React or jQuery they all are really dependencies, because we use the code from React, jQuery, etc, in our product/app. But something like Webpack is really just a development tool, and therefore, it's saved inside the **package.json** in the **"devDependencies"** field. Now, imagine if we wanted to use something like jQuery (which is an actual dependency from which we import actual code and use the code in our project), then we install it using the following command: **npm install jquery --save**. Note that in this command, we just used **"--save"** instead of **"--save-dev"**, because jQuery is a library dependency, and not a development dependency. We can see the command in action below.

```

C:\Users\sraira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>npm install jquery --save
npm WARN forkify@1.0.0 No repository field.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.11 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.11: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

+ jquery@3.4.1
added 1 package from 1 contributor and audited 4228 packages in 6.924s

3 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\sraira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>

```

Now we can see the contents of **package.json** below and see that **"jquery"** is inside the **"dependencies"** field as shown below, because jQuery is a library and not a tool.


```

1  {
2    "name": "forkify",
3    "version": "1.0.0",
4    "description": "Forkify Project",
5    "main": "index.js",
6    "scripts": {
7      "test": "echo \"Error: no test specified\" && exit 1"
8    },
9    "author": "Sriram Chandrabhatta",
10   "license": "ISC",
11   "devDependencies": {
12     "webpack": "^4.41.6"
13   },
14   "dependencies": {
15     "jquery": "^3.4.1"
16   }
17 }

```

Now, the **package.json** file has all the information regarding the dependencies, development dependencies, etc, in our project. Now that's very important, because if we want to move this project to another computer or work with another person on the same project, then everyone's on the same page by simply looking into the **package.json** file. Everyone will get to know the dependencies being used in the project just by having a glance in the **package.json** file. It is also important to create a **package.json** file because it allows us to install all of our dependencies automatically even if we don't have the **node_modules** directory in our project. The **node_modules** folder is where all our packages (dependencies or development dependencies) reside i.e., it will have all the dependencies for the dependencies that we installed in our project. For instance, Webpack and jQuery themselves have so many dependencies, so the **node_modules** folder also contains the dependencies of the dependencies we installed for our project.

Now, if we want to share our project to someone else, **we need not share the node_modules** folder. Because all the required details are there inside the **package.json** file. So anyone who's having the project files (without the **node_modules** folder) along with the **package.json** file, he/she can simply run **npm install** command, and all the required devDependencies and dependencies will be installed in the project folder in the **node_modules** folder. We will illustrate that in the screenshots below. We will delete the **node_modules** folder first, and then just type in **npm install** in the directory where our project files are (along with **package.json** file), and we will see that the **node_modules** folder will be created in our project's directory automatically, where all the dependencies required for the project, will reside.

```

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>dir
Volume in drive C has no label.
Volume Serial Number is 261A-08AE

Directory of C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project

15-02-2020 12:45 <DIR>      .
15-02-2020 12:45 <DIR>      ..
15-02-2020 09:19 <DIR>      dist
15-02-2020 12:45 <DIR>      node_modules
15-02-2020 12:45      124,290 package-lock.json
15-02-2020 12:57      339 package.json
15-02-2020 09:21 <DIR>      src
                2 File(s)      124,629 bytes
                5 Dir(s)    157,106,659,328 bytes free

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>rmdir /S node_modules
node_modules, Are you sure (Y/N)? Y

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>dir
Volume in drive C has no label.
Volume Serial Number is 261A-08AE

Directory of C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project

15-02-2020 13:14 <DIR>      .
15-02-2020 13:14 <DIR>      ..
15-02-2020 09:19 <DIR>      dist
15-02-2020 12:45      124,290 package-lock.json
15-02-2020 12:57      339 package.json
15-02-2020 09:21 <DIR>      src
                2 File(s)      124,629 bytes
                4 Dir(s)    157,134,925,824 bytes free

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>npm install
npm WARN forkify@1.0.0 No repository field.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.11 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.11: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

added 323 packages from 198 contributors and audited 4228 packages in 23.253s

3 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

```

```

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>npm install
npm WARN forkify@1.0.0 No repository field.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.11 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.11: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

added 323 packages from 198 contributors and audited 4228 packages in 23.253s

3 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>dir
Volume in drive C has no label.
Volume Serial Number is 261A-08AE

Directory of C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project

15-02-2020 13:15 <DIR>      .
15-02-2020 13:15 <DIR>      ..
15-02-2020 09:19 <DIR>      dist
15-02-2020 13:15 <DIR>      node_modules
15-02-2020 12:45      124,290 package-lock.json
15-02-2020 12:57      339 package.json
15-02-2020 09:21 <DIR>      src
                2 File(s)      124,629 bytes
                5 Dir(s)    157,110,177,792 bytes free

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>

```

One last thing is that we can also uninstall the packages. In our project we don't really have a need for jQuery, so we go ahead and uninstall it as shown in the screenshot below, using the following command: **npm uninstall jquery --save**

```

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>npm uninstall jquery --save
npm WARN forkify@1.0.0 No repository field.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.11 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.11: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

removed 1 package and audited 4227 packages in 8.267s

3 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>

```

We can see that the **package.json** reflects that "jquery" has been uninstalled, as it is not present inside the "dependencies" field of the **package.json** file as shown below.

```
1  {
2    "name": "forkify",
3    "version": "1.0.0",
4    "description": "Forkify Project",
5    "main": "index.js",
6    "scripts": {
7      "test": "echo \"Error: no test specified\" && exit 1"
8    },
9    "author": "Sriram Chandrabhatta",
10   "license": "ISC",
11   "devDependencies": {
12     "webpack": "^4.41.6"
13   },
14   "dependencies": {}
15 }
```

A final thing to know is, the packages that we installed till now (i.e., Webpack and jQuery using the `--save-dev` and `--save` respectively) are locally installed. It means that they are installed only for this particular project. But we can also install packages globally, so that those packages will be accessible everywhere in our computer. Right now, the "webpack" devDependency only works inside the project, but if we want to install it globally and access it everywhere, we could also do that .

We will now see how we can install packages globally. We will install the **Live Server** package globally using the following command: `npm install live-server --global` (instead of `--global` we could've also used `-g`). Live Server allows us to create a simple and local web server to serve some static websites.


```
C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>npm install live-server --global
npm WARN deprecated opn@6.0.0: The package has been renamed to 'open'
C:\Users\srira\AppData\Roaming\npm\live-server -> C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\live-server.js
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.7 (node_modules\live-server\node_modules\chokidar\node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.11: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: abbrev@1.1.1 (node_modules\live-server\node_modules\fsevents\node_modules\abbrev):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\abbrev' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\abbrev.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: ansi-regex@2.1.1 (node_modules\live-server\node_modules\fsevents\node_modules\ansi-regex):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\ansi-regex' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\ansi-regex.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: aproba@1.2.0 (node_modules\live-server\node_modules\fsevents\node_modules\aproba):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\aproba' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\aproba.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: balanced-match@1.0.0 (node_modules\live-server\node_modules\fsevents\node_modules\balanced-match):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\balanced-match' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\balanced-match.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: chownr@1.1.3 (node_modules\live-server\node_modules\fsevents\node_modules\chownr):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\chownr' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\chownr.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: code-point-at@1.1.0 (node_modules\live-server\node_modules\fsevents\node_modules\code-point-at):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\code-point-at' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\code-point-at.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: concat-map@0.0.1 (node_modules\live-server\node_modules\fsevents\node_modules\concat-map):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\concat-map' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\concat-map.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: console-control-strings@1.1.0 (node_modules\live-server\node_modules\fsevents\node_modules\console-control-strings):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\console-control-strings' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\console-control-strings.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: core-util-is@1.0.2 (node_modules\live-server\node_modules\fsevents\node_modules\core-util-is):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\core-util-is' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\core-util-is.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: deep-extend@0.6.0 (node_modules\live-server\node_modules\fsevents\node_modules\deep-extend):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\deep-extend' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\deep-extend.DELETE'
```

```
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: safer-buffer@2.1.2 (node_modules\live-server\node_modules\fsevents\node_modules\safer-buffer):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\safer-buffer' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\safer-buffer.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: sax@1.2.4 (node_modules\live-server\node_modules\fsevents\node_modules\sax):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\sax' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\sax.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: semver@5.7.1 (node_modules\live-server\node_modules\fsevents\node_modules\semver):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\semver' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\semver.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: set-blocking@2.0.0 (node_modules\live-server\node_modules\fsevents\node_modules\set-blocking):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\set-blocking' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\set-blocking.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: signal-exit@3.0.2 (node_modules\live-server\node_modules\fsevents\node_modules\signal-exit):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\signal-exit' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\signal-exit.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: strip-json-comments@2.0.1 (node_modules\live-server\node_modules\fsevents\node_modules\strip-json-comments):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\strip-json-comments' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\strip-json-comments.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: util-deprecate@1.0.2 (node_modules\live-server\node_modules\fsevents\node_modules\util-deprecate):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\util-deprecate' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\util-deprecate.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: wrappy@1.0.2 (node_modules\live-server\node_modules\fsevents\node_modules\wrappy):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\wrappy' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\wrappy.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: yallist@3.1.1 (node_modules\live-server\node_modules\fsevents\node_modules\yallist):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory, rename 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\yallist' -> 'C:\Users\srira\AppData\Roaming\npm\node_modules\live-server\node_modules\fsevents\node_modules\yallist.DELETE'

+ live-server@1.2.1
added 191 packages from 149 contributors in 18.665s

C:\Users\srira\Desktop\JavaScript\Modern-JS-ES6-NPM-Babel-Webpack\forkify_project>
```

Now we can run the command **live-server** from anywhere in the system, and in the respective folder, a live local webserver is created on the loopback address (127.0.0.1) on port 8080 as shown below.

