

Web Programming

Vue CLI

Vue CLI (**Command Line Interface**) is a full system for rapid Vue.js development, providing:

- Interactive project scaffolding via `@vue/cli`.
- A runtime dependency (`@vue/cli-service`) that is:
 - Upgradeable;
 - Built on top of webpack, with sensible defaults;
 - Configurable via in-project config file;
 - Extensible via plugins
- A rich collection of official plugins integrating the best tools in the frontend ecosystem.
- A full graphical user interface to create and manage Vue.js projects.

Vue CLI aims to be the standard tooling baseline for the Vue ecosystem. It ensures the various build tools work smoothly together with sensible defaults so you can focus on writing your app instead of spending days wrangling with configurations. At the same time, it still offers the flexibility to tweak the config of each tool without the need for ejecting.

Node Version Requirement

Vue CLI requires Node.js version 8.9 or above (v10+ recommended).

You can install node.JS Version 16.* from the link: <https://nodejs.org/en/>

After installation, please check the version. Open the shell command ant type

```
#node -v
```

To install the new package, use one of the following commands.

```
#npm install -g @vue/cli
```

You can check you have the right version with this command:

```
#vue --version
```

Create a Vue project

Reference: <https://cli.vuejs.org/guide/installation.html#vue-create>

Select the folder in your computer to create the project

i.e.: cd documents

#vue create project-name

Select the package that you want to install – You can create and save your own package selections.

For the example lest select the > Manually select feactures

Hint Enter

```
Ctrl npm config get registry
Vue CLI v5.0.1
? Please pick a preset:
  Default ([Vue 3] babel, eslint)
  Default ([Vue 2] babel, eslint)
> Manually select features
```

Lets add Router to our selection using the space bar to select and hint enter.

```
Ctrl npm config get registry
Vue CLI v5.0.1
? Please pick a preset: Manually select features
? Check the features needed for your project: (Press <space> to select, <a> to toggle all, <i> to invert selection, and <enter> to proceed)
(*) Babel
( ) TypeScript
( ) Progressive Web App (PWA) Support
(*) Router
( ) Vuex
( ) CSS Pre-processors
(*) Linter / Formatter
( ) Unit Testing
( ) E2E Testing
```

Next step: choose the Vue version: lets keep with the version 3.x and hint enter.

Next step: History mode for router (i.e.: localhost:8080/users) hint Y (yes) or Has Router (i.e.: localhost:8080#users) hint N (no).

Lets hint Y

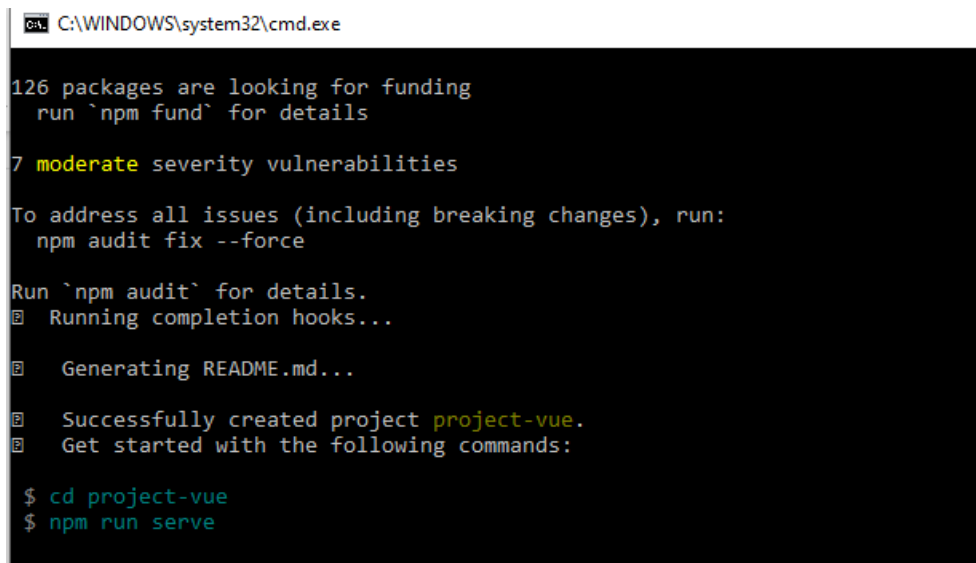
Next :select ESLint + Standard Config for Linter / formatter, hint enter

Next : Lint on save, hint enter

Next : Save the configuration in package.json, hint enter

Next: Save this as a preset for future project? Y

Next : name your project and hint enter, your project will be created. It can take same minutes.



```
C:\WINDOWS\system32\cmd.exe

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

7 moderate severity vulnerabilities

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
[+] Running completion hooks...
[+] Generating README.md...
[+] Successfully created project project-vue.
[+] Get started with the following commands:

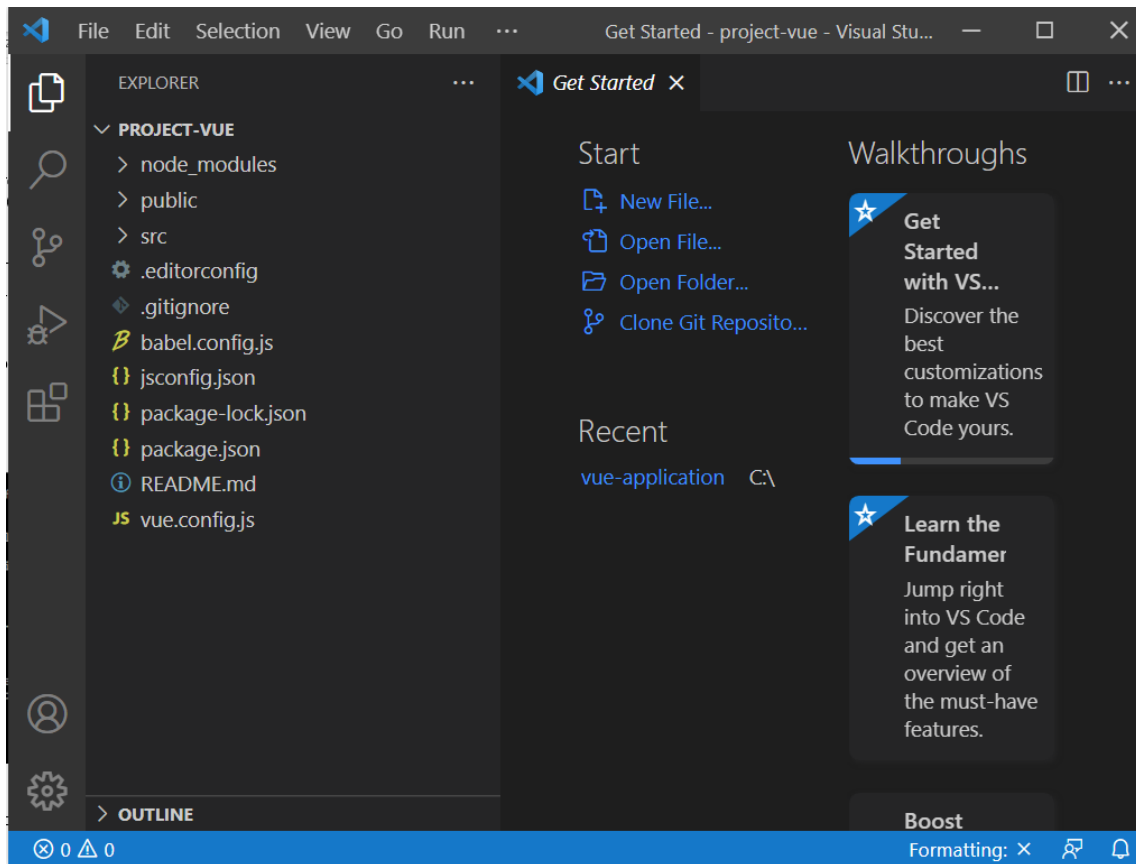
$ cd project-vue
$ npm run serve
```

Lets navigate thought the project:

cd project-name

Open the project in vs code:

code .



Reference: <https://cli.vuejs.org/guide/creating-a-project.html>

Folder Structure:

Into package.json we can find the installed chosen package scripts.

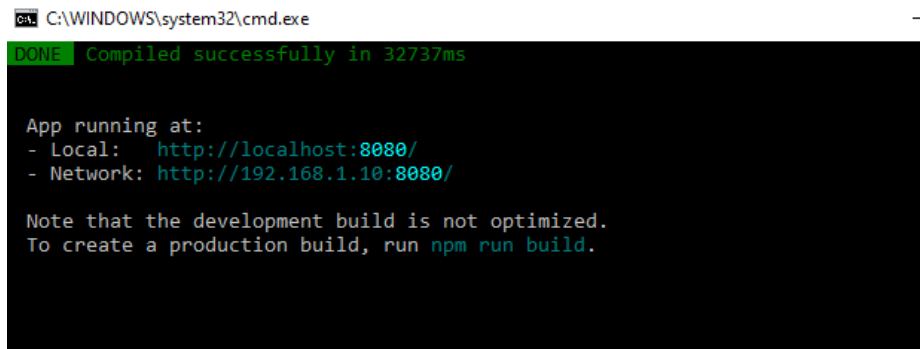
```
{
  "name": "project-vue",
  "version": "0.1.0",
  "private": true,
  > Debug
  "scripts": {
    "serve": "vue-cli-service serve",
    "build": "vue-cli-service build",
    "lint": "vue-cli-service lint"
  },
}
```

serve command is used for the local development server

build is used for the production

To use the local server run the command:

#npm run serve

A screenshot of a Windows command prompt window. The title bar shows 'C:\WINDOWS\system32\cmd.exe'. The command prompt displays the following text: 'DONE Compiled successfully in 32737ms' in green. Below that, it says 'App running at:' followed by two lines: '- Local: http://localhost:8080/' and '- Network: http://192.168.1.10:8080/'. At the bottom, it notes: 'Note that the development build is not optimized. To create a production build, run npm run build.'

Now the project can be accessibly locally using the localhost:8080\ address on your web browser.

On the public folder we have the index.html with the div id="app" where the application will run.

SRC folder

main.js mount the files into the app. Using any package that we have chosen for the application.

i.e: .use(router)

App.vue

: use the router to grab the components

router-link is used to link the javascripts components such as a href does in a html.

Router-view is the page content

Route > index.html : import the components to the view using the routes object.

Views are pages for the route

Components are chunks of code that can be reusable.