Configure for Lab

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https://github.com/swacademy/Vue.js

Contents

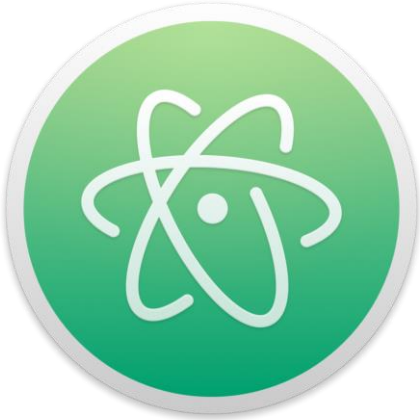
- Web Browser
  - Google Chrome
  - Mozilla Firefox
- Editor or IDE
  - Microsoft Visual Studio Code
- Node.js
- Git
- Vue.js devtools
- Vue-CLI
- Online Editors

Google Chrome Browser

- Google Chrome Browser
  - https://www.google.com/chrome/
- Mozilla Firefox
  - https://www.mozilla.org/ko/

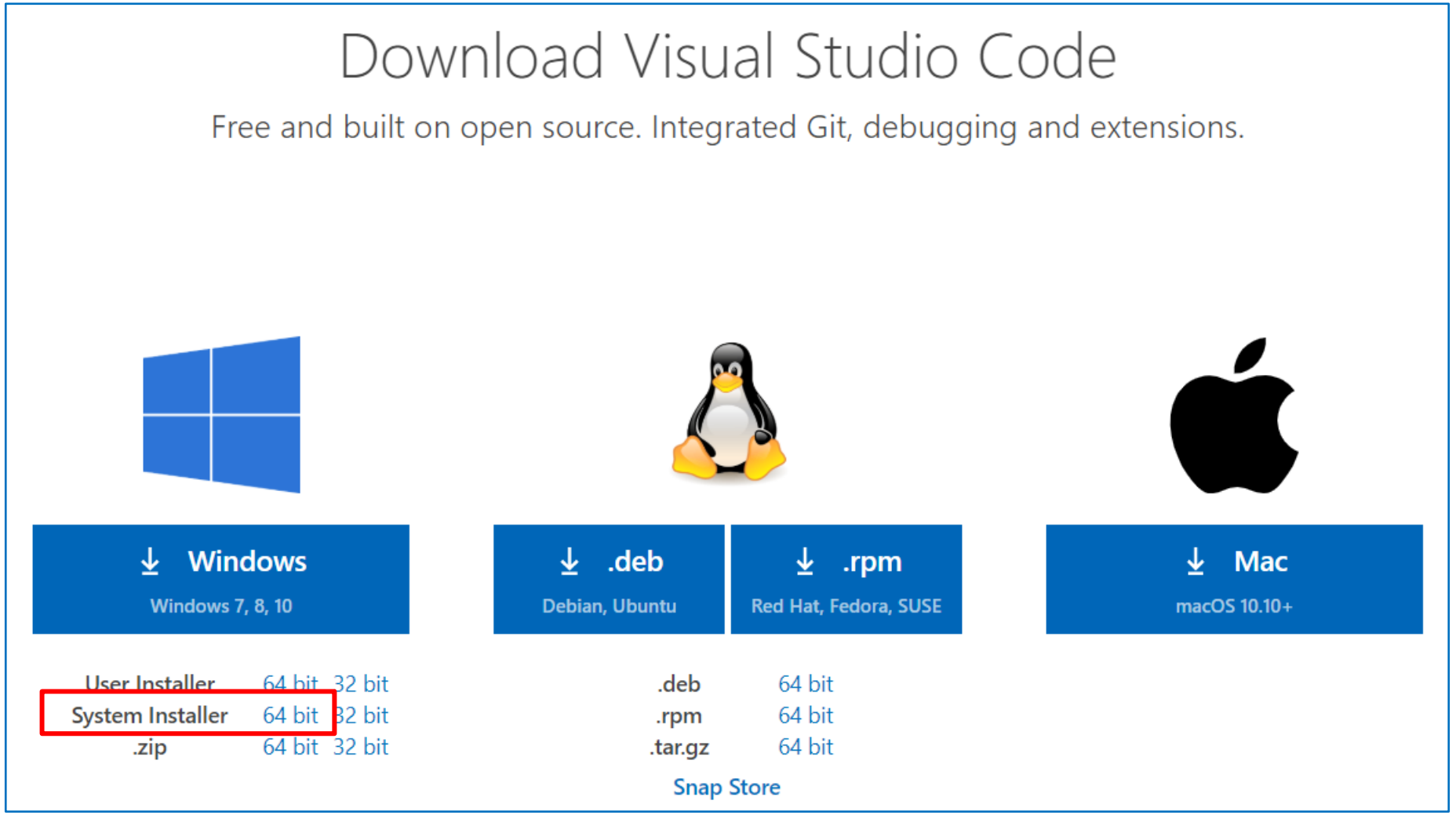
Editor or IDE

- Visual Studio Code
  - https://code.visualstudio.com/
- Atom
  - https://atom.io/
- SublimeText3
  - https://www.sublimetext.com/3

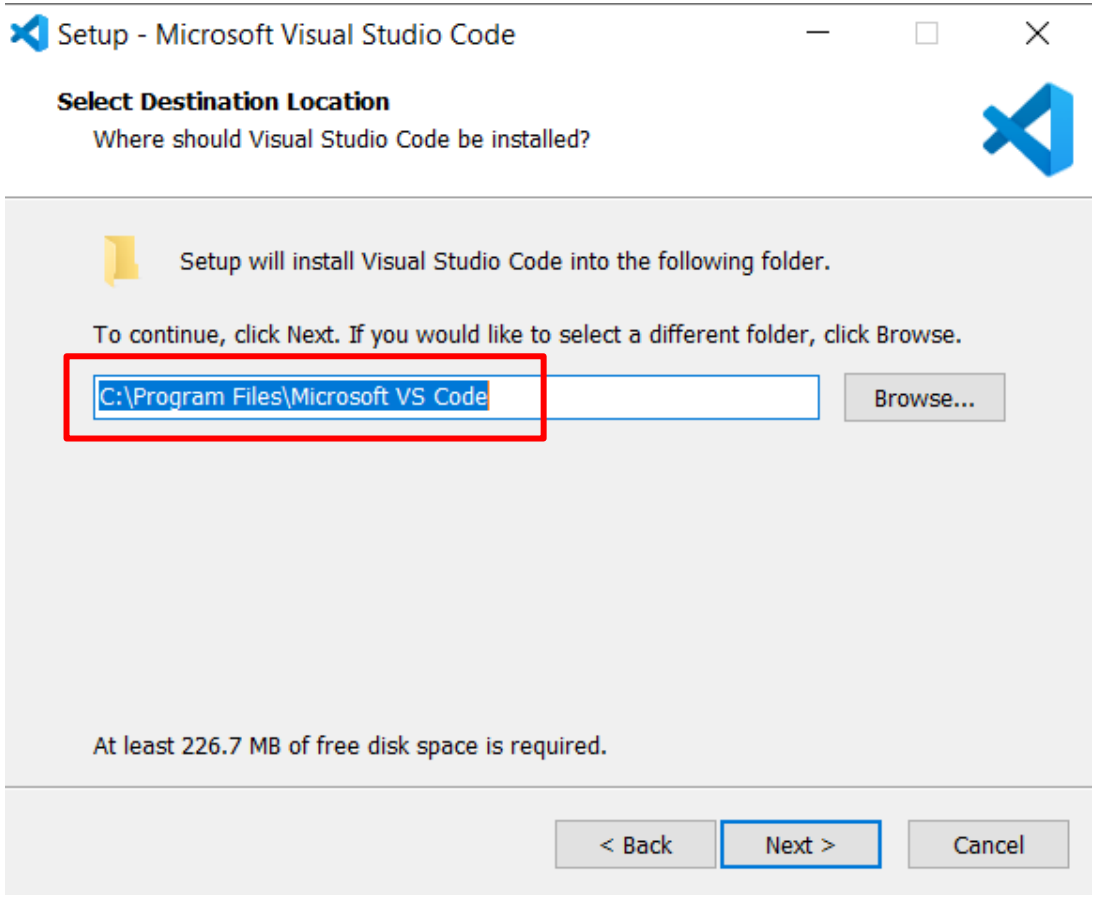


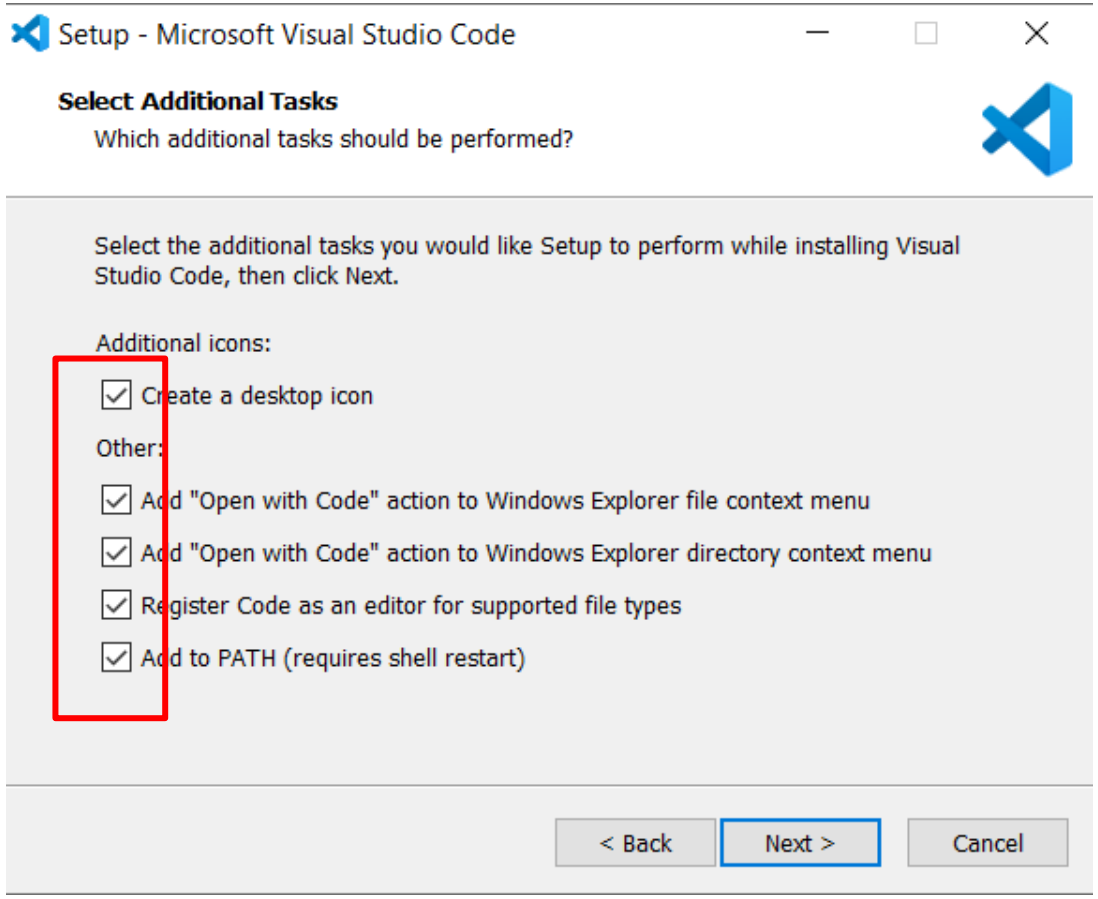
Visual Studio Code

- https://code.visualstudio.com/Download

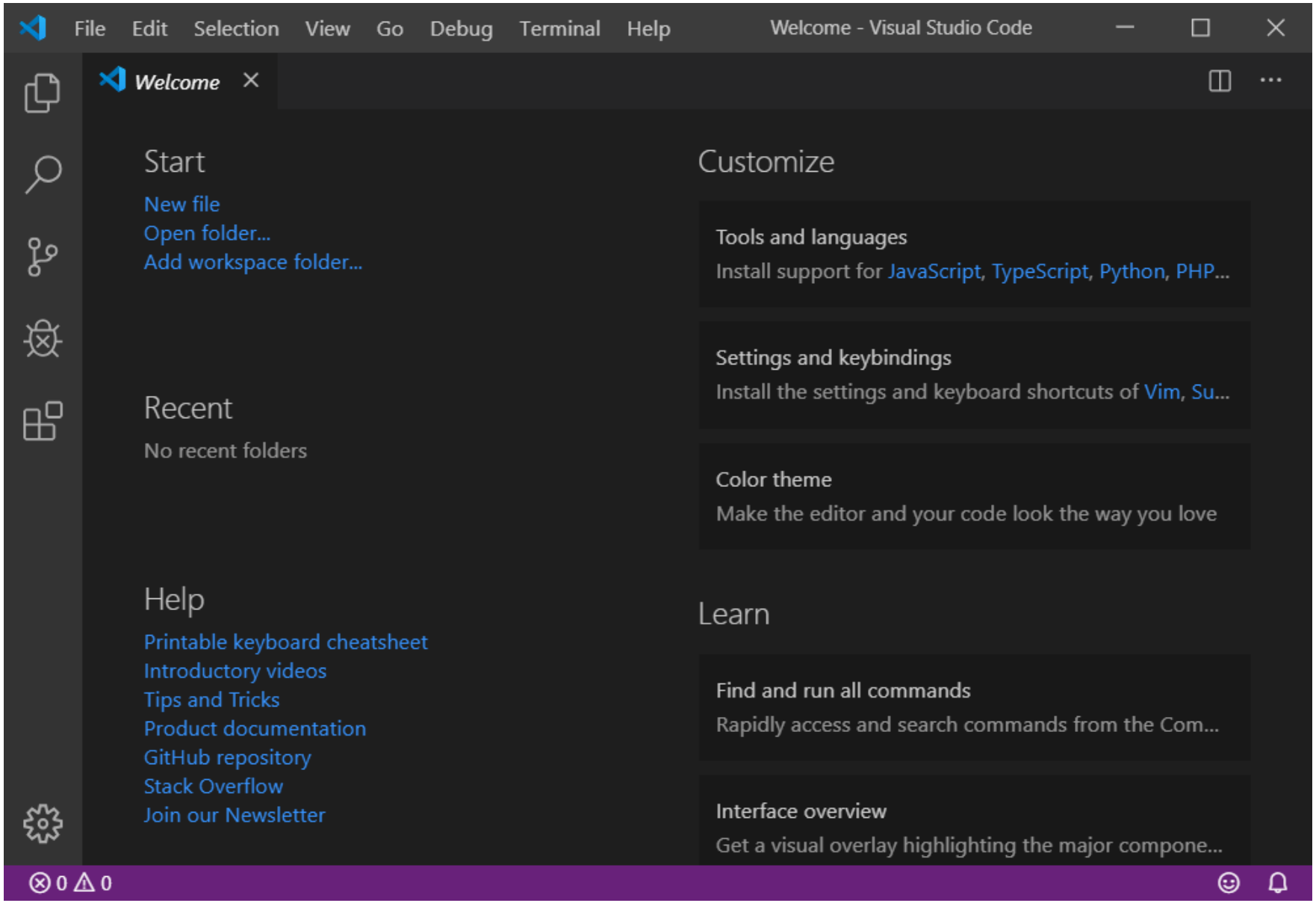


VSCode (Cont.)

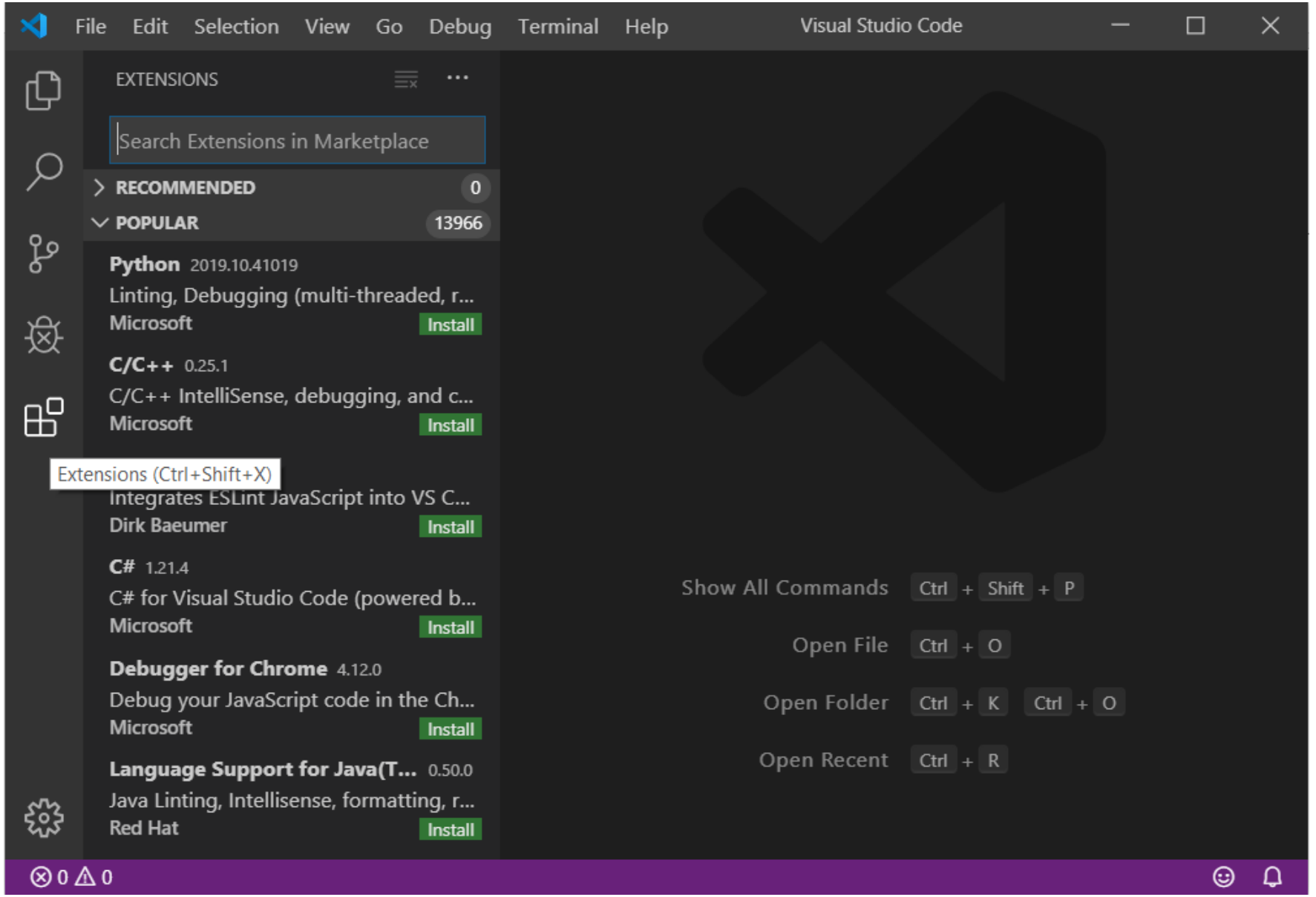

Setup - Microsoft Visual Studio Code
Select Destination Location
Where should Visual Studio Code be installed?
Setup will install Visual Studio Code into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Microsoft VS Code
Browse...
At least 226.7 MB of free disk space is required.
< Back
Next >
Cancel


Setup - Microsoft Visual Studio Code
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing Visual Studio Code, then click Next.
Additional icons:
Create a desktop icon
Other:
Add "Open with Code" action to Windows Explorer file context menu
Add "Open with Code" action to Windows Explorer directory context menu
Register Code as an editor for supported file types
Add to PATH (requires shell restart)
< Back
Next >
Cancel

VSCode (Cont.)


File Edit Selection View Go Debug Terminal Help
Welcome - Visual Studio Code
Welcome
Start
New file
Open folder...
Add workspace folder...
Recent
No recent folders
Help
Printable keyboard cheatsheet
Introductory videos
Tips and Tricks
Product documentation
GitHub repository
Stack Overflow
Join our Newsletter
Customize
Tools and languages
Install support for JavaScript, TypeScript, Python, PHP...
Settings and keybindings
Install the settings and keyboard shortcuts of Vim, Su...
Color theme
Make the editor and your code look the way you love
Learn
Find and run all commands
Rapidly access and search commands from the Com...
Interface overview
Get a visual overlay highlighting the major compone...
0 0

VSCode Extensions



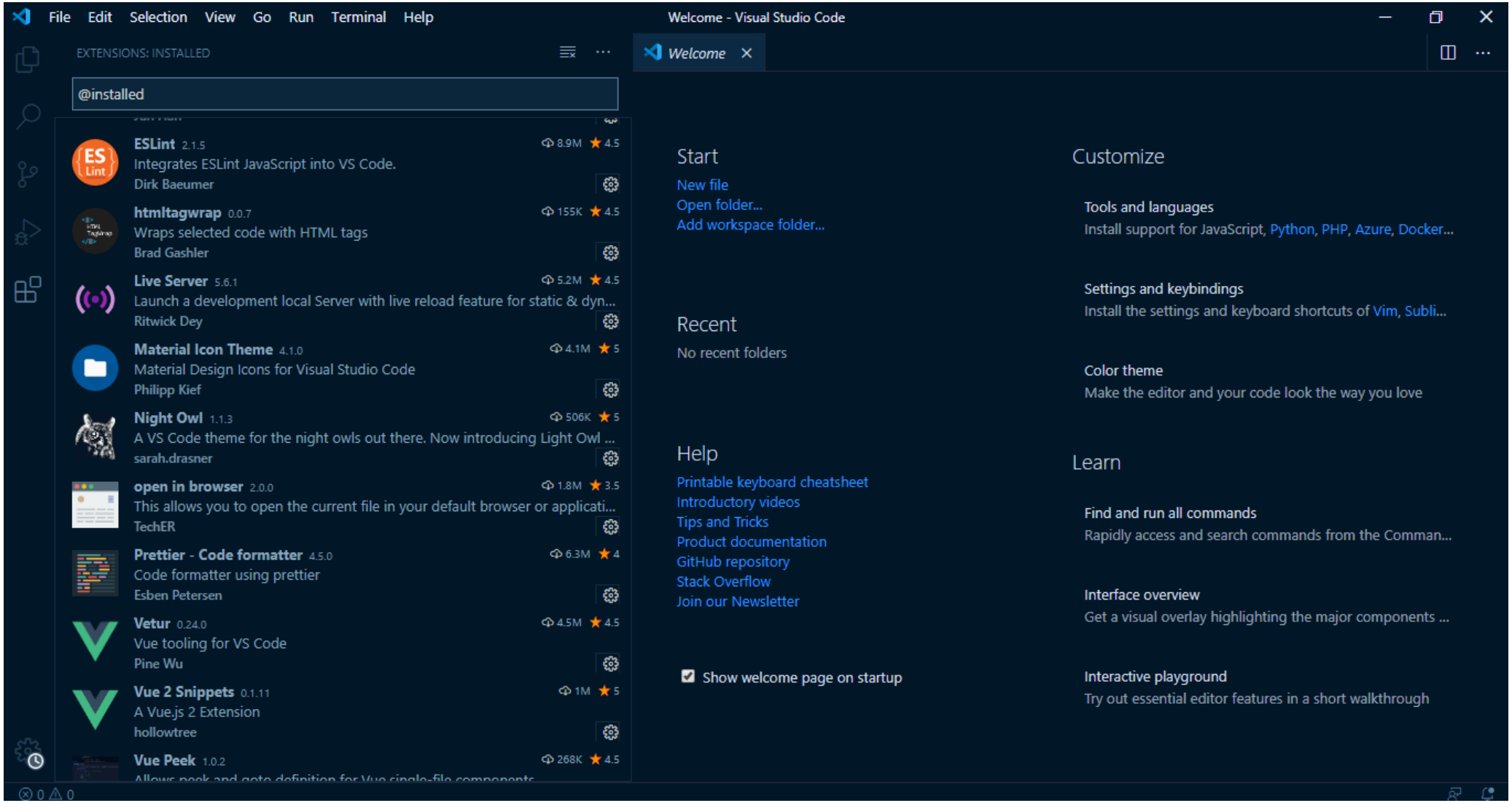
VSCode Extensions (Cont.)

- Open in Browser
  - To open the current file in default browser.
- Htmltagwrap
  - Wraps selected code with HTML Tags
- Vetur
  - Vue.js code에 대한 문법 강조, 코드 자동완성, Debugging, Linting
- Vue Peek
  - Code 상에 작성되어 있는 Vue Component를 통해 해당 Component 파일을 열고 그 파일로 이동할 수 있는 기능
- Vue 2 Snippets
  - Vue Component 작성시 수기로 작성해야 할 부분을 VSCode의 Plugin에서 자동완성

VSCode Extensions (Cont.)

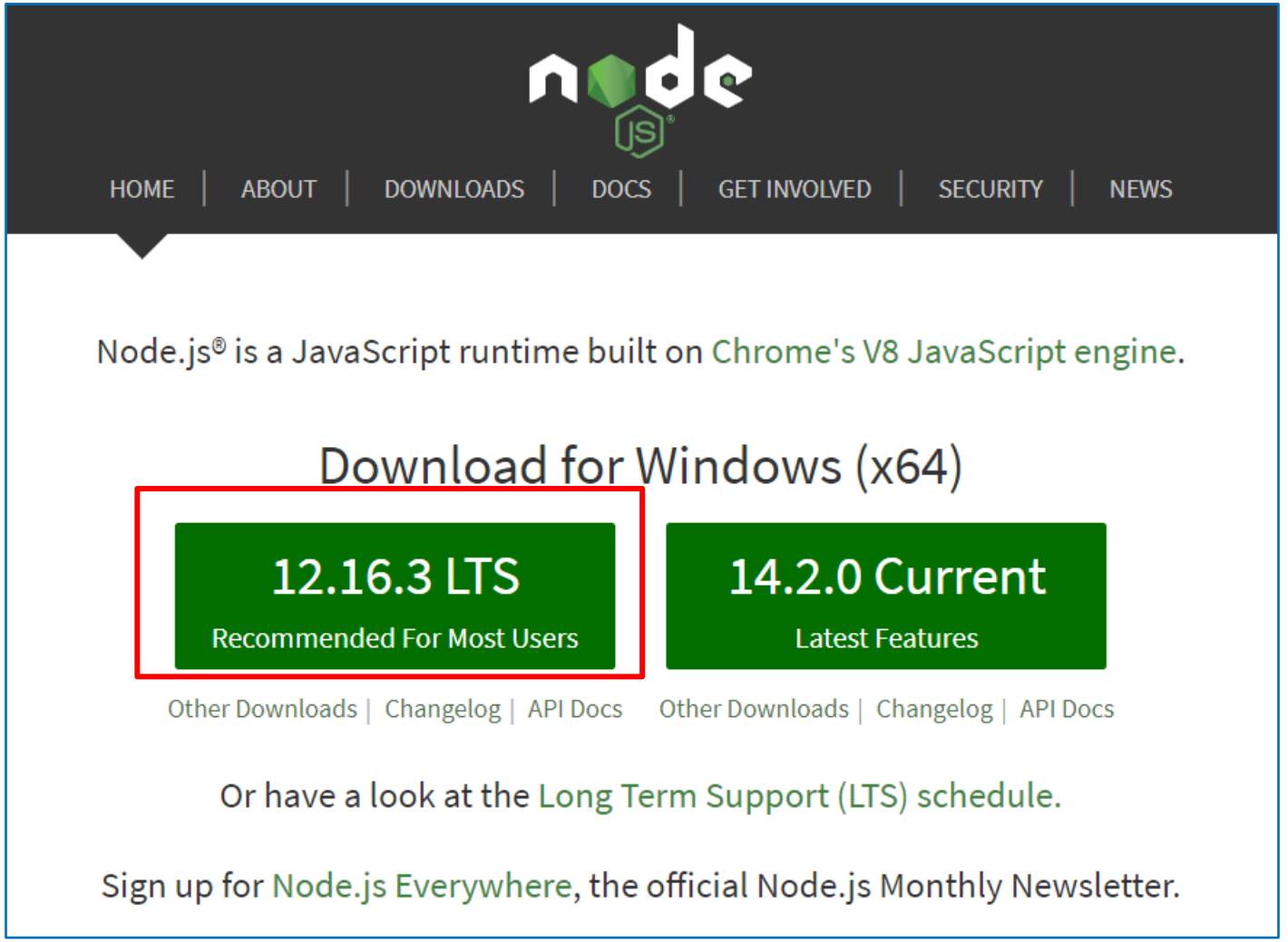
- Night Owl
  - VSCode color theme.
- Material Icon Theme
  - VSCode icon theme
- Live Server
  - Launch a development local Server with live reload feature for static & dyna mic pages.
- ESLint
  - JavaScript code style, 문법 check 기능 제공
- Prettier
  - Code formatter
- Auto Close Tag

VSCode Extensions (Cont.)



Node.js

- https://nodejs.org/en/



Node.js (Cont.)

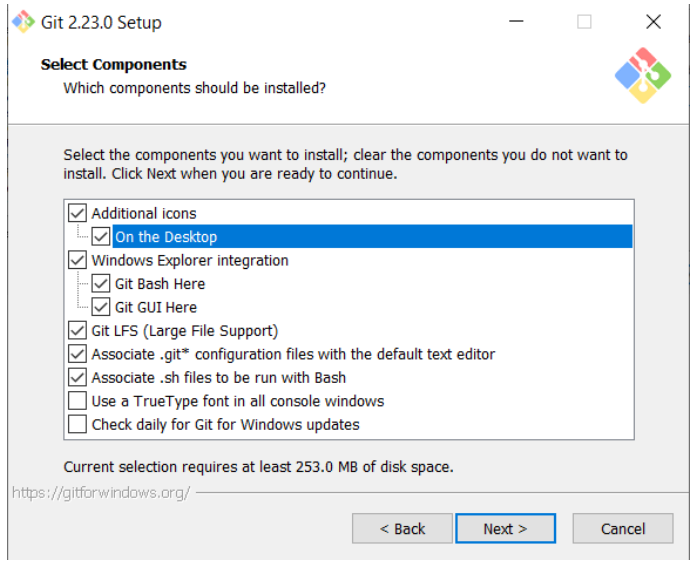
```
C:₩Users₩instructor>echo %PATH%
C:₩Windows₩system32;C:₩Windows;C:₩Windows₩System32₩Wbem;C:₩Windows₩System32₩Windows
PowerShell₩v1.0₩;C:₩Windows₩System32₩OpenSSH₩;C:₩Program Files₩Microsoft VS Code₩bi
n;C:₩Program Files₩nodejs₩;C:₩Users₩instructor₩AppData₩Local₩Microsoft₩WindowsApps;
C:₩Users₩instructor₩AppData₩Roaming₩npm

C:₩Users₩instructor>
```

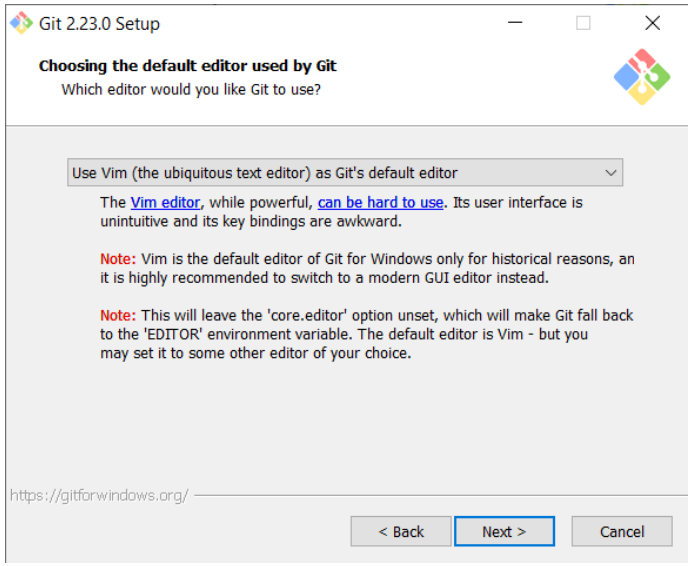
```
C:₩Users₩instructor>
C:₩Users₩instructor>node -v
v12.16.3

C:₩Users₩instructor>npm -v
6.14.4
```

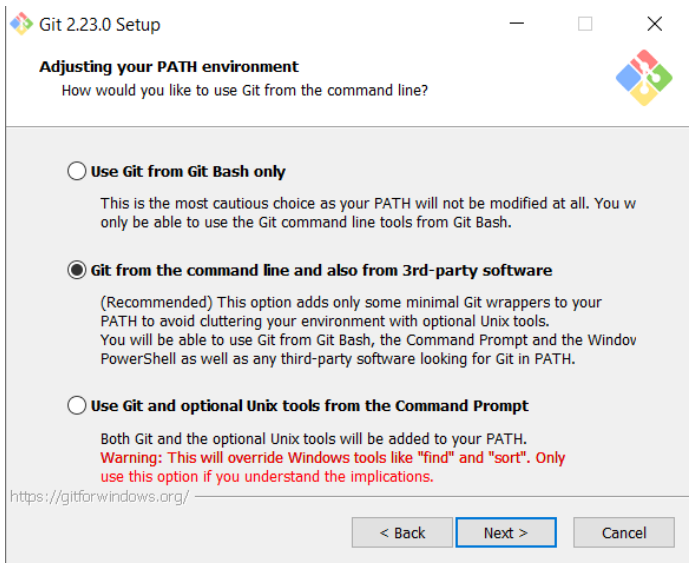
Git

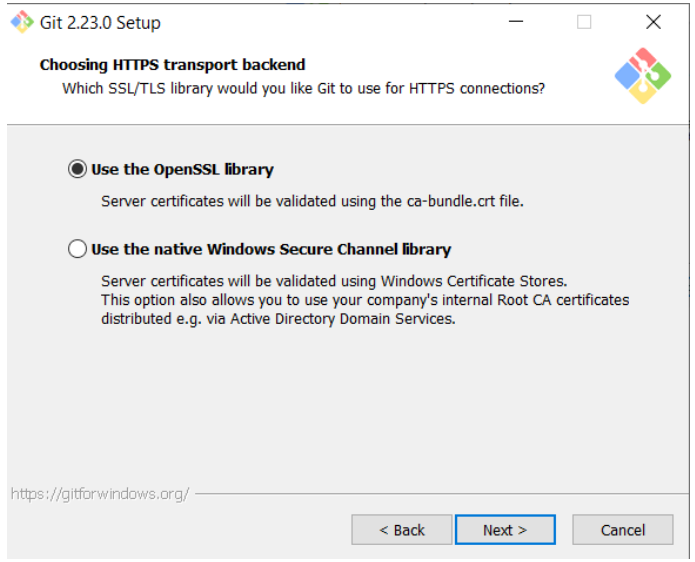
- https://git-scm.com/

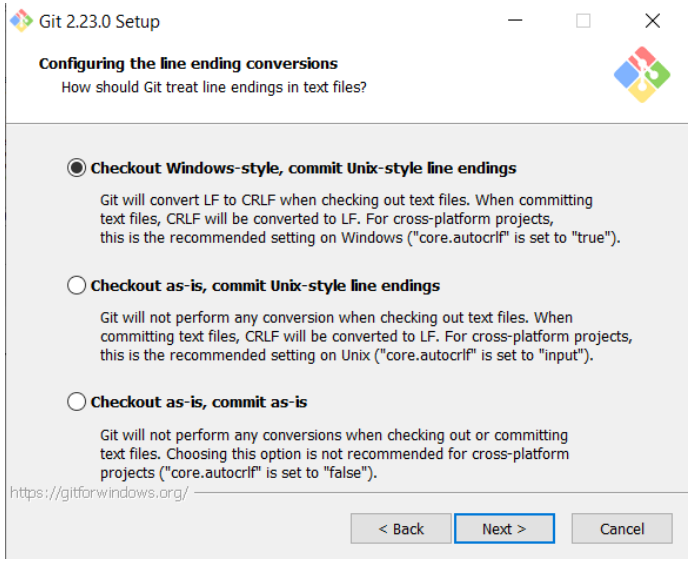
Git (Cont.)

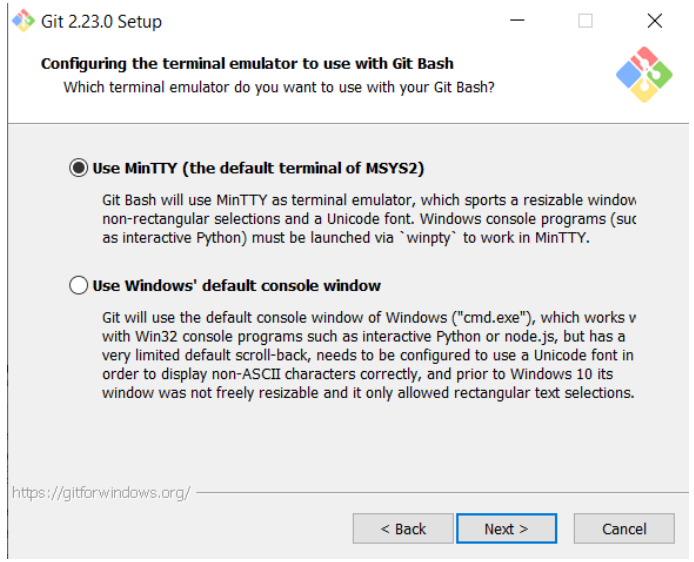

Git 2.23.0 Setup
Select Components
Which components should be installed?
Select the components you want to install; clear the components you do not want to install. Click Next when you are ready to continue.
Additional icons
On the Desktop
Windows Explorer integration
Git Bash Here
Git GUI Here
Git LFS (Large File Support)
Associate .git* configuration files with the default text editor
Associate .sh files to be run with Bash
Use a TrueType font in all console windows
Check daily for Git for Windows updates
Current selection requires at least 253.0 MB of disk space.
https://gitforwindows.org/
< Back
Next >
Cancel


Git 2.23.0 Setup
Choosing the default editor used by Git
Which editor would you like Git to use?
Use Vim (the ubiquitous text editor) as Git's default editor
The Vim editor, while powerful, can be hard to use. Its user interface is unintuitive and its key bindings are awkward.
Note: Vim is the default editor of Git for Windows only for historical reasons, an it is highly recommended to switch to a modern GUI editor instead.
Note: This will leave the 'core.editor' option unset, which will make Git fall back to the 'EDITOR' environment variable. The default editor is Vim - but you may set it to some other editor of your choice.
https://gitforwindows.org/
< Back
Next >
Cancel


Git 2.23.0 Setup
Adjusting your PATH environment
How would you like to use Git from the command line?
Use Git from Git Bash only
This is the most cautious choice as your PATH will not be modified at all. You w only be able to use the Git command line tools from Git Bash.
Git from the command line and also from 3rd-party software
(Recommended) This option adds only some minimal Git wrappers to your PATH to avoid cluttering your environment with optional Unix tools.
You will be able to use Git from Git Bash, the Command Prompt and the Windov PowerShell as well as any third-party software looking for Git in PATH.
Use Git and optional Unix tools from the Command Prompt
Both Git and the optional Unix tools will be added to your PATH.
Warning: This will override Windows tools like "find" and "sort". Only use this option if you understand the implications.
https://gitforwindows.org/
< Back
Next >
Cancel


Git 2.23.0 Setup
Choosing HTTPS transport backend
Which SSL/TLS library would you like Git to use for HTTPS connections?
Use the OpenSSL library
Server certificates will be validated using the ca-bundle.crt file.
Use the native Windows Secure Channel library
Server certificates will be validated using Windows Certificate Stores.
This option also allows you to use your company's internal Root CA certificates distributed e.g. via Active Directory Domain Services.
https://gitforwindows.org/
< Back
Next >
Cancel


Git 2.23.0 Setup
Configuring the line ending conversions
How should Git treat line endings in text files?
Checkout Windows-style, commit Unix-style line endings
Git will convert LF to CRLF when checking out text files. When committing text files, CRLF will be converted to LF. For cross-platform projects, this is the recommended setting on Windows ("core.autocrlf" is set to "true").
Checkout as-is, commit Unix-style line endings
Git will not perform any conversion when checking out text files. When committing text files, CRLF will be converted to LF. For cross-platform projects, this is the recommended setting on Unix ("core.autocrlf" is set to "input").
Checkout as-is, commit as-is
Git will not perform any conversions when checking out or committing text files. Choosing this option is not recommended for cross-platform projects ("core.autocrlf" is set to "false").
https://gitforwindows.org/
< Back
Next >
Cancel

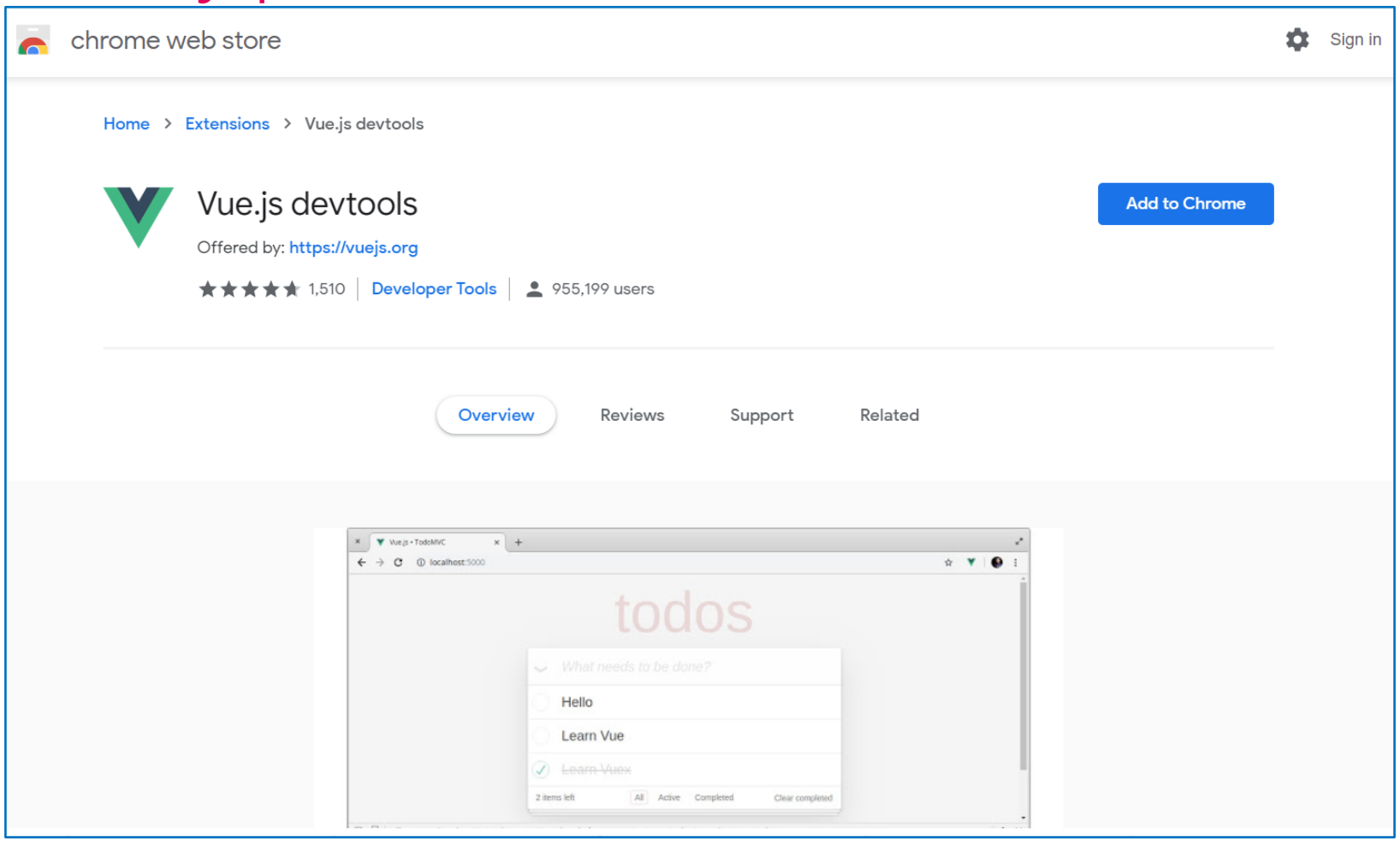

Git 2.23.0 Setup
Configuring the terminal emulator to use with Git Bash
Which terminal emulator do you want to use with your Git Bash?
Use MinTTY (the default terminal of MSYS2)
Git Bash will use MinTTY as terminal emulator, which sports a resizable windov non-rectangular selections and a Unicode font. Windows console programs (suc as interactive Python) must be launched via `winpty` to work in MinTTY.
Use Windows' default console window
Git will use the default console window of Windows ("cmd.exe"), which works v with Win32 console programs such as interactive Python or node.js, but has a very limited default scroll-back, needs to be configured to use a Unicode font in order to display non-ASCII characters correctly, and prior to Windows 10 its window was not freely resizable and it only allowed rectangular text selections.
https://gitforwindows.org/
< Back
Next >
Cancel

Git (Cont.)

```
C:₩Users₩instructor>git --version
git version 2.26.2.windows.1
```

Vue.js devtools

- https://chrome.google.com/webstore/detail/vuejs-devtools/nhdogjmejiglipccpnnnanhbledajbpd



Hello, Vue.js – First Way

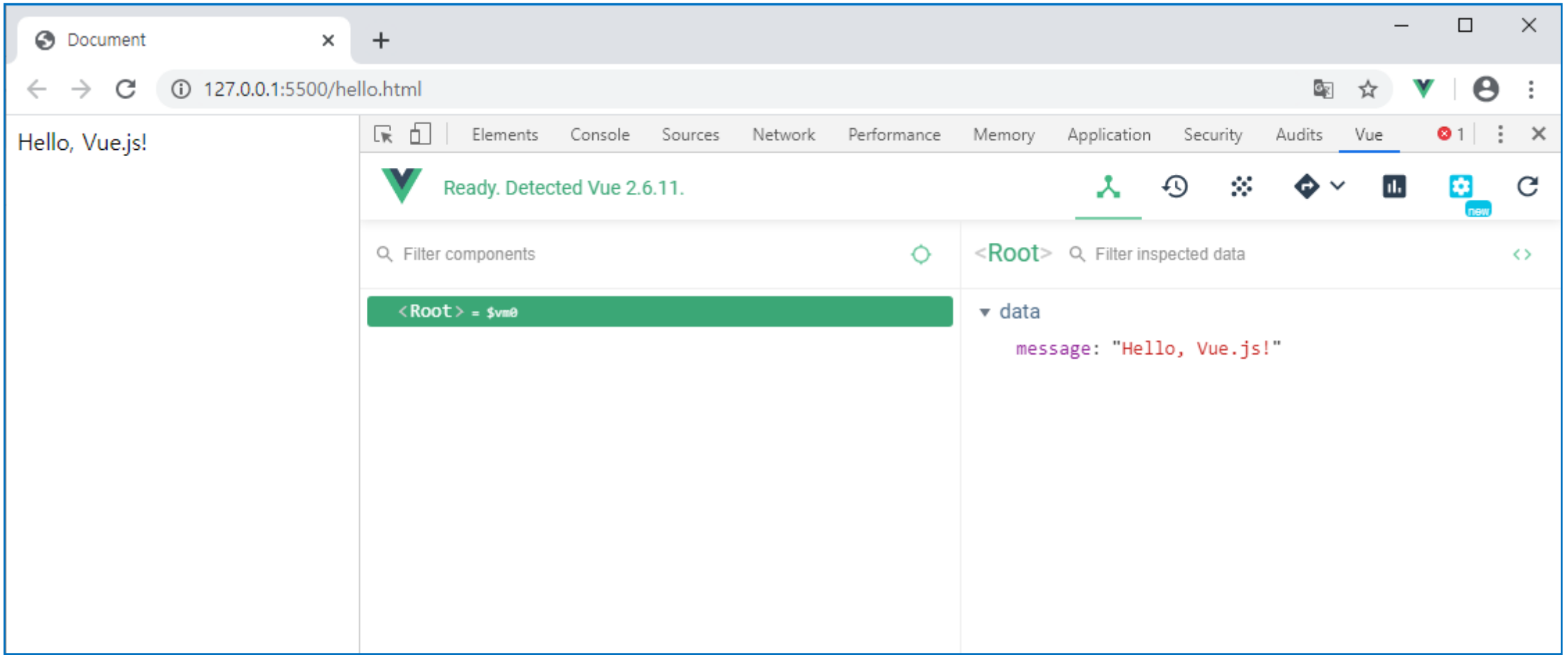
- 독립 실행 Version
  - Direct **<script>** Include
  - Simply download and include with a script tag.
  - Vue will be registered as a global variable.
  - Vuejs.org에서 Download
  - Development Version
    - https://vuejs.org/js/vue.js
    - With full warnings and debug mode
    - 342,146 Bytes
  - Production Version
    - https://vuejs.org/js/vue.min.js
    - Warnings stripped, 33.30KB min+gzip
    - 93,670 Bytes

Hello, Vue.js – First Way (Cont.)

hello.html > html

```
1   <!DOCTYPE html>
2   <html lang="en">
3   <head>
4       <meta charset="UTF-8">
5       <meta name="viewport" content="width=device-width, initial-scale=1.0">
6       <title>Document</title>
7   </head>
8   <body>
9       <div id="app">
10          {{ message }}
11      </div>
12      <script src="js/vue.js"></script>
13      <script>
14          new Vue({
15              el : '#app',
16              data : {
17                  message : 'Hello, Vue.js!'
18              }
19          });
20      </script>
21  </body>
22  </html>
```

Hello Vue.js – First Way (Cont.)



Hello, Vue.js – Second Way

- 독립 실행 CDN Version
  - Direct **<script>** Include
  - Simply download and include with a script tag.
  - Vue will be registered as a global variable.
  - CDN에서 가져오기
    - **<script src="https://cdn.jsdelivr.net/npm/vue/dist/vue.js"></script>**
    - **<script src="https://cdn.jsdelivr.net/npm/vue@2.6.0"></script>**
    - **<script type="module">**
      import Vue from 'https://cdn.jsdelivr.net/npm/vue@2.6.10/dist/vue.esm.browser.js'
      </script>
  - You can browse the source of the NPM package at cdn.jsdelivr.net/npm/vue.

Hello, Vue.js – Second Way (Cont.)

- 독립 실행 CDN Version
  - Vue is also available on unpkg and cdnjs.
  - cdnjs takes some time to sync so the latest release may not be av ailable yet.
  - Make sure to :
    - Read about the different builds of Vue
    - Use the production version.
    - Replacing vue.js with vue.min.js.

Hello, Vue.js – Second Way (Cont.)

hello.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <div id="app">
        {{ message }}
    </div>
    <!-- development version, includes helpful console warnings -->
    <!-- <script src="https://cdn.jsdelivr.net/npm/vue@2.6.11/dist/vue.js"></script>-->

    <!-- production version, optimized for size and speed -->
    <script src="https://cdn.jsdelivr.net/npm/vue@2.6.11"></script>
    <script>
        new Vue({
            el : '#app',
            data : {
                message : 'Hello, Vue.js!'
            }
        });
    </script>
</body>
</html>
```

Vue.js 개발 환경 선택하기

- Web Page에 Vue.js Library File을 포함하는 방법
- 배포용 Version
  - 개발자가 알아볼 수 없도록 난독화와 압축을 한 파일
  - 크기가 적고 파일을 편집기로 열었을 때 알아볼 수 없음.
  - Vue.js Project 개발을 완료하고 Web Application을 공개/배포 때 사용
  - vue.min.js
- 개발용 Version
  - Framework 내부에서 발생하는 경고 및 Debug Mode 모두 포함
  - 난독화하지 않은 File이므로 Vue.js Project 개발하면서 Vue.js 내부 동작을 살펴보기에 적합
  - vue.js
  - ***Vue Devtools 사용가능***

Vue.js 개발 환경 선택하기 (Cont.)

- Web page에 Vue.js Library file을 포함할 때는 CDN 사용 권장.
- 대표적인 CDN
  - https://unpkg.com
  - https://www.jsdelivr.com
  - https://cdnjs.com
- CDN에서 제공하는 Library File은 Version별로 구분해서 제공됨.
- NPM에 올라온 최신 Version을 사용할 때는 unpkg.com의 CDN 권장.

Vue.js 개발 환경 선택하기 (Cont.)

- unpkg.com
  - 개발용 : https://unpkg.com/vue@<version>/dist/vue.js
  - 배포용 : https://unpkg.com/vue@<version>/dist/vue.min.js
  - 개발 Version에 한정해 https://unpkg.com/vue로 적용 가능
- jsDelivr.com
  - 개발용 : https://cdn.jsdelivr.net/npm/vue@<version>/dist/vue.js
  - 배포용 : https://cdn.jsdelivr.net/npm/vue@<version>/dist/vue.min.js
- cdnjs.com
  - 개발용 : https://cdnjs.cloudflare.com/ajax/libs/vue/<version>/vue.js
  - 배포용 : https://cdnjs.cloudflare.com/ajax/libs/vue/<version>/vue.min.js
- Vue.js Project 개발시 개발 편의성을 위해 개발용 Version 권장

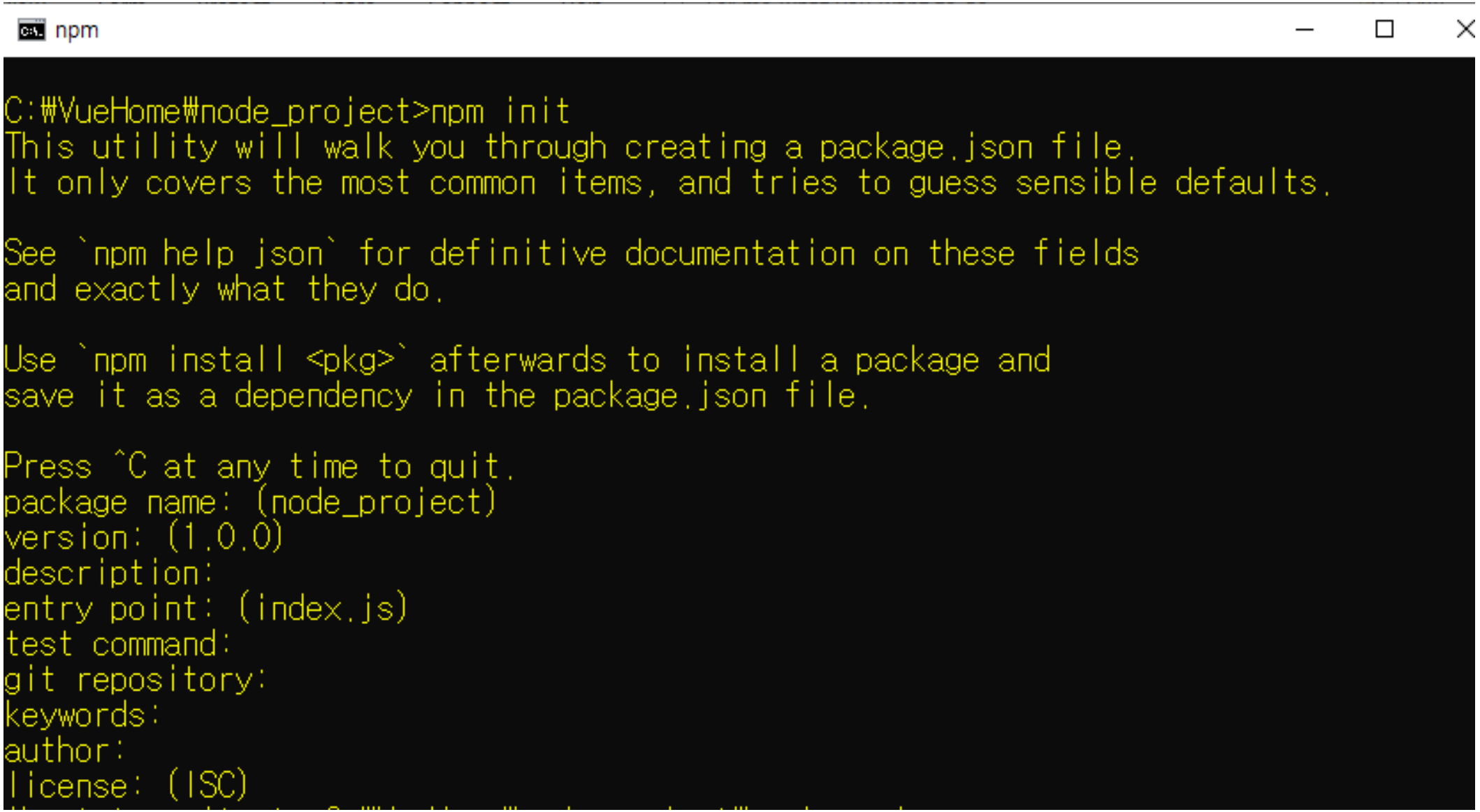
Vue.js 개발 환경 선택하기 (Cont.)

- NPM 설치
  - Vue.js 개발시 ES6를 사용하거나 Vue.js 프로그램을 쉽게 배포하기 위한 Bundling할 때
  - npm을 사용해서 Vue.js를 설치하면 ***webpack***, ***Browserify***와 같은 Module Bundler를 사용할 수 있다.
  - 대규모 Web Application을 개발하기에 좋다.
  - npm 명령어로 Vue.js를 설치하는 것은 **Node.js Project에 적용할 때만 사용**해야 한다.

```
$ mkdir node_project
$ cd node_project
$ npm init
$ npm install vue
```

Bundling : 여러 개의 JavaScript, CSS File 등을 하나의 File로 모아주는 일을 하는 Program을 말한다. 일반적으로 Webpack, Browserify, Parcel 등이 있다.

Vue.js 개발 환경 선택하기 (Cont.)



Vue.js 개발 환경 선택하기 (Cont.)

```
About to write to C:₩VueHome₩node_project₩package.json:

{
  "name": "node_project",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo ₩"Error: no test specified₩" && exit 1"
  },
  "author": "",
  "license": "ISC"
}


Is this OK? (yes) _
```

Vue.js 개발 환경 선택하기 (Cont.)

```
C:₩VueHome₩node_project>npm install vue
npm notice created a lockfile as package-lock.json. You should commit this file.
npm WARN node_project@1.0.0 No description
npm WARN node_project@1.0.0 No repository field.

+ vue@2.6.11
added 1 package from 1 contributor and audited 1 package in 1.283s
found 0 vulnerabilities
```

Vue.js 개발 환경 선택하기 (Cont.)

- Vue-CLI 설치
  - Vue.js를 사용할 때 Vue 전용 CLI 도구인 Vue-CLI를 활용할 수 있다.
  - Vue-CLI는 Node.js에 기반을 둔 Vue.js 프로그램의 빠른 시작과 구현을 위해 Build 설정이 포함된 Project를 생성한다.
  - Vue-CLI 덕분에 Vue.js가 적용된 Node.js Project를 쉽게 만들 수 있다.
  - Vue-CLI는 Project를 쉽게 Build할 수 있도록 몇 개의 Build Template을 제공한다.

Vue-CLI Version 4

- Evan You가 공식적으로 관리하는 Command line Interface 기반의 Scaffolding 도구.
- Vue.js App을 개발시 Project의 Directory 구조를 어떻게 잡을 것인지 Test, Build, Dependency 등을 어떻게 설정할 것인지에 대한 고민을 하지 않도록 Project의 기본 Template을 설정해 주는 Tool.
- Refer to https://cli.vuejs.org/guide/cli-service.html
- Prerequisites:
  - Node.js (>=6.x, 8.x preferred), npm version 3+ and Git.
- Installation

  $ npm install –g @vue/cli

  $ yarn global add @vue/cli

Scaffolding : 원래 '공사장 등에서 사용하는 임시 가설물'이라는 뜻. Application을 개발할 때 처음부터 개발하는 것이 아니라 기본적인 Interface와 Tool을 제공해 준다. 개발자는 이 Tool을 활용해서 전체 App을 개발할 수 있다. – 원형섭, <Vue.js 퀵 스타트>, 2017.9, 루비페이퍼, p11.

Vue-CLI Version 4 (Cont.)

- Warning regarding Previous Versions
  - The package name changed from **vue-cli** to **@vue/cli**.
  - If have the previous **vue-cli** (1.x or 2.x) package installed globally, need to uninstall it first with :

  $ npm uninstall vue-cli -g

  or

  $ yarn global remove vue-cli

Vue-CLI Version 4 (Cont.)

```
C:₩VueHome>npm install -g @vue/cli
npm WARN deprecated request@2.88.2: request has been deprecated, see https://github
.com/request/request/issues/3142
[..................] ₩ fetchMetadata: sill resolveWithNewModule ansi-regex@5.0.0 ch
npm WARN deprecated resolve-url@0.2.1: https://github.com/lydell/resolve-url#deprec
ated
npm WARN deprecated urix@0.1.0: Please see https://github.com/lydell/urix#deprecate
d
npm WARN deprecated chokidar@2.1.8: Chokidar 2 will break on node v14+. Upgrade to
chokidar 3 with 15x less dependencies.
npm WARN deprecated fsevents@1.2.13: fsevents 1 will break on node v14+ and could b
e using insecure binaries. Upgrade to fsevents 2.
C:₩Users₩instructor₩AppData₩Roaming₩npm₩vue -> C:₩Users₩instructor₩AppData₩Roaming₩
npm₩node_modules₩@vue₩cli₩bin₩vue.js

> core-js@3.6.5 postinstall C:₩Users₩instructor₩AppData₩Roaming₩npm₩node_modules₩@v
ue₩cli₩node_modules₩core-js
> node -e "try{require('./postinstall')}catch(e){}"
```

Vue-CLI Version 4 (Cont.)

```
> ejs@2.7.4 postinstall C:\Users\Instructor\AppData\Roaming\npm\node_modules\@vue\c
li\node_modules\ejs
> node ./postinstall.js

Thank you for installing EJS: built with the Jake JavaScript build tool (https://ja
kejs.com/)

npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@^1.2.7 (node_modules\@vue\
cli\node_modules\chokidar\node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2
.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

+ @vue/cli@4.3.1
added 1169 packages from 668 contributors in 363.587s
```

Vue-CLI Version 4 (Cont.)

- After installation, will have access to the **vue** binary in command line.
- 설치 후 설치 유무 및 Version 정보 확인

  $ vue –V 혹은 **vue –-version**

```
C:₩VueHome>vue --version
@vue/cli 4.3.1
```

Vue-CLI Version 4 (Cont.)

- Project 생성

  $ vue create hello-vue-cli

```
C:₩VueHome>vue create hello-vue-cli


Vue CLI v4.3.1
? Please pick a preset: (Use arrow keys)
> default (babel, eslint)
  Manually select features
```

Vue-CLI Version 4 (Cont.)

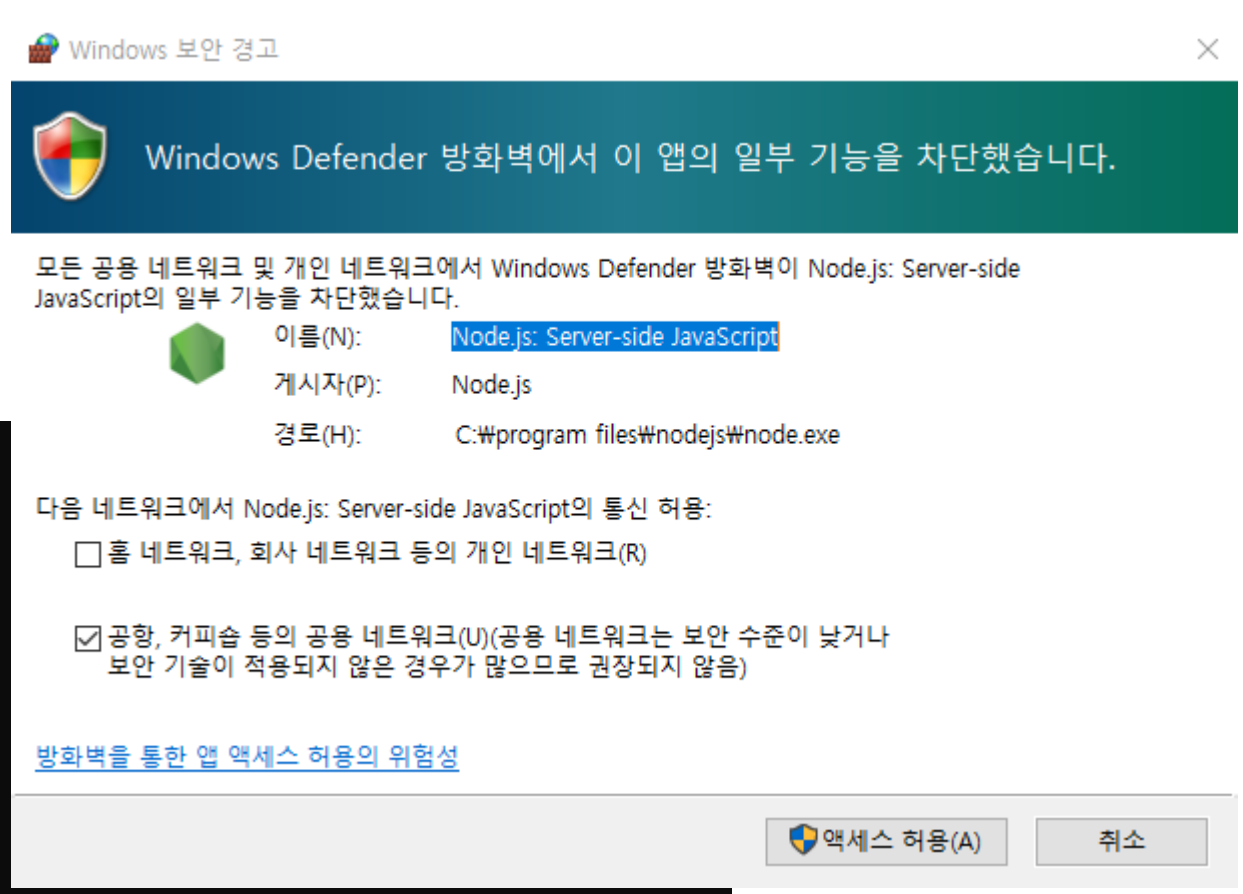
- Project 생성

```
added 54 packages from 39 contributors and audited 25848 packages in 16.431s

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

found 1 low severity vulnerability
  run `npm audit fix` to fix them, or `npm audit` for details
⚓  Running completion hooks...

📄  Generating README.md...

🎉  Successfully created project hello-vue-cli.
🎉  Get started with the following commands:

 $ cd hello-vue-cli
 $ npm run serve

 WARN  Skipped git commit due to missing username and email in git config.
You will need to perform the initial commit yourself.
```

Vue-CLI Version 4 (Cont.)

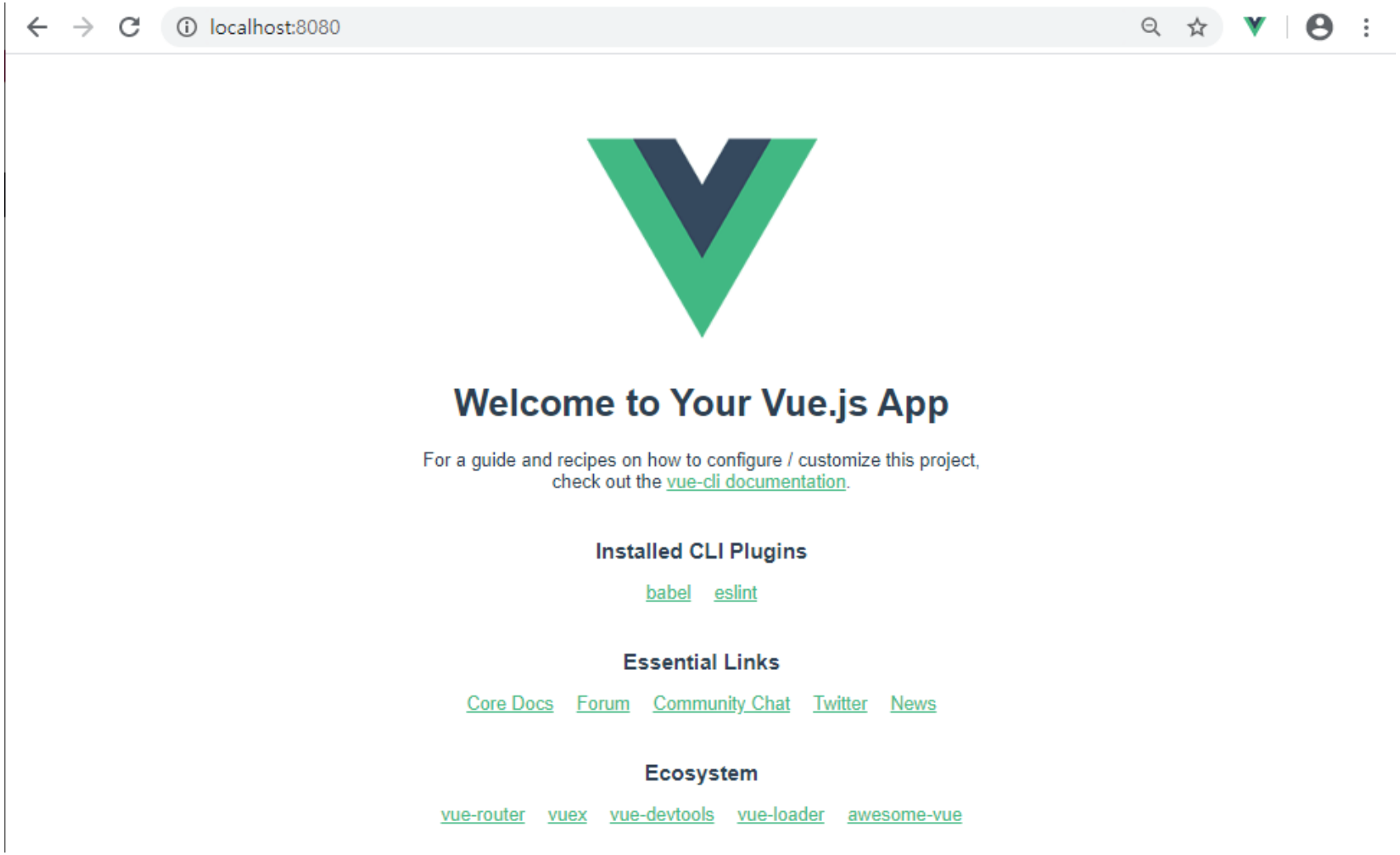
- Project 생성

```
C:₩VueHome>cd hello-vue-cli

C:₩VueHome₩hello-vue-cli>npm run serve

> hello-vue-cli@0.1.0 serve C:₩VueHome₩hello-vue-cli
> vue-cli-service serve

 INFO  Starting development server...
98% after emitting CopyPlugin

 DONE  Compiled successfully in 5102ms                                13:45:41


  App running at:
  - Local:   http://localhost:8080/
  - Network: http://10.0.2.15:8080/

  Note that the development build is not optimized.
  To create a production build, run npm run build.
```

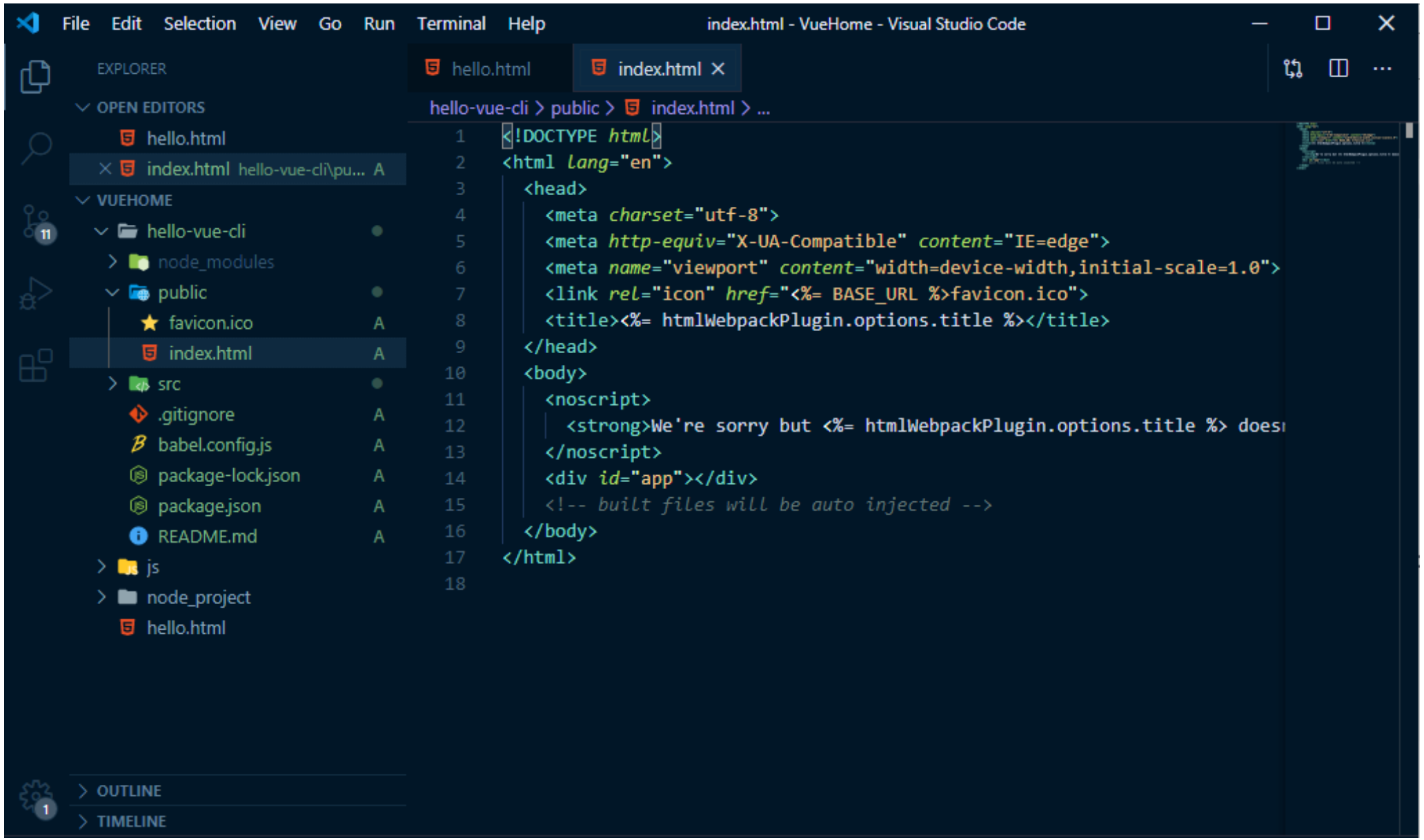


Vue-CLI Version 4 (Cont.)

- Project 생성



Vue-CLI Version 4 (Cont.)



Vue-CLI Version 2

- Remove Vue-CLI 4.x

```
일괄 작업을 끝내시겠습니까 (Y/N)? y

C:₩VueHome₩hello-vue-cli>cd ..

C:₩VueHome>npm remove -g @vue/cli
npm WARN deprecated fsevents@1.2.13: fsevents 1 will break on node v14+ and could b
e using insecure binaries. Upgrade to fsevents 2.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@^1.2.7 (node_modules₩@vue₩
cli₩node_modules₩chokidar₩node_modules₩fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2
.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

removed 1169 packages in 36.006s

C:₩VueHome>
```

Vue-CLI Version 2

- Installation Vue-CLI 2.x

```
C:₩VueHome>npm install vue-cli -g
npm WARN deprecated vue-cli@2.9.6: This package has been deprecated in favour of @v
ue/cli
npm WARN deprecated request@2.88.2: request has been deprecated, see https://github
.com/request/request/issues/3142
npm WARN deprecated coffee-script@1.12.7: CoffeeScript on NPM has moved to "coffees
cript" (no hyphen)
C:₩Users₩instructor₩AppData₩Roaming₩npm₩vue-init -> C:₩Users₩instructor₩AppData₩Roa
ming₩npm₩node_modules₩vue-cli₩bin₩vue-init
C:₩Users₩instructor₩AppData₩Roaming₩npm₩vue -> C:₩Users₩instructor₩AppData₩Roaming₩
npm₩node_modules₩vue-cli₩bin₩vue
C:₩Users₩instructor₩AppData₩Roaming₩npm₩vue-list -> C:₩Users₩instructor₩AppData₩Roa
ming₩npm₩node_modules₩vue-cli₩bin₩vue-list
+ vue-cli@2.9.6
added 238 packages from 205 contributors in 62.098s

C:₩VueHome>_
```

Vue-CLI Version 2 (Cont.)

- 설치 후 설치 유무 및 Version 정보 확인

```
C:₩VueHome>vue --version
2.9.6
```

- Vue-CLI 2.x로 만들 수 있는 Project Template List

  $ vue list

Vue-CLI Version 2 (Cont.)

- Vue-CLI 2.x로 만들 수 있는 Project Template List

$ vue list

```
C:₩VueHome>vue list

  Available official templates:

  ★  browserify - A full-featured Browserify + vueify setup with hot-reload, linti
ng & unit testing.
  ★  browserify-simple - A simple Browserify + vueify setup for quick prototyping.
  ★  pwa - PWA template for vue-cli based on the webpack template
  ★  simple - The simplest possible Vue setup in a single HTML file
  ★  webpack - A full-featured Webpack + vue-loader setup with hot reload, linting
, testing & css extraction.
  ★  webpack-simple - A simple Webpack + vue-loader setup for quick prototyping.


C:₩VueHome>
```

Vue-CLI Version 2 (Cont.)

- simple
  - 가장 간단단 Project Template 유형.
  - HTML file 하나만 생성.
  - 내부에는 Vue.js를 CDN(Content Delivery Network)방식으로 참조하고 있음.
  - 가장 단순한 방법으로 기본적인 기능을 Test 해 볼 때 사용 가능.
- broserify
  - browserify + vueify 조합으로 hot-reload, linting, 단위 Test를 지원하는 Project Template을 구성.
  - 대규모 Application을 개발할 때 주로 사용
- broserify-simple
  - 빠른 Prototyping을 위한 browserify + vueify가 설정된 간단한 Template 제공

- browserify는 require()문 등으로 여러 개의 의존성 있는 JavaScript Code들을 참조하여 개발한 경우에 단일 JavaScript file로 묶어주는 Bundling Tool. 자세한 내용은 http://browserify.org 참조
- vueify는 Component로서 Bundling하기 위한 browserify 변환 기능을 제공

- 원형섭, <Vue.js 퀵 스타트>, 2017.9, 루비페이퍼, p12.

Vue-CLI Version 2 (Cont.)

- webpack
  - Webpack + vue-loader 조합의 기능에 hot-reload, linting, 단위 Test 기능을 제공하는 Project Template.
  - 대규모 Application 개발에 적절.
- webpack-simple
  - 빠른 Prototyping을 위한 Webpack + vue-loader가 설정된 간단한 Template 제공
- pwa
  - PWA(Progressive Web App) 개발을 위한 Template 제공.
  - Webpack과 유사하지만 몇 가지 Library가 추가되어 있음.

- Webpack은 최근에 많이 사용되기 시작한 JavaScript Module Bundling Tool. 자세한 내용은 http://webpackjs.org 참조.
- vue-loader는 Webpack에서 vue Component를 Bundling하기 위한 확장 도구.

- 원형섭, <Vue.js 퀵 스타트>, 2017.9, 루비페이퍼, p13.

Vue-CLI (Cont.)

- Vue-CLI 2.x로 Project Template을 만드는 방법은 아래와 같다.

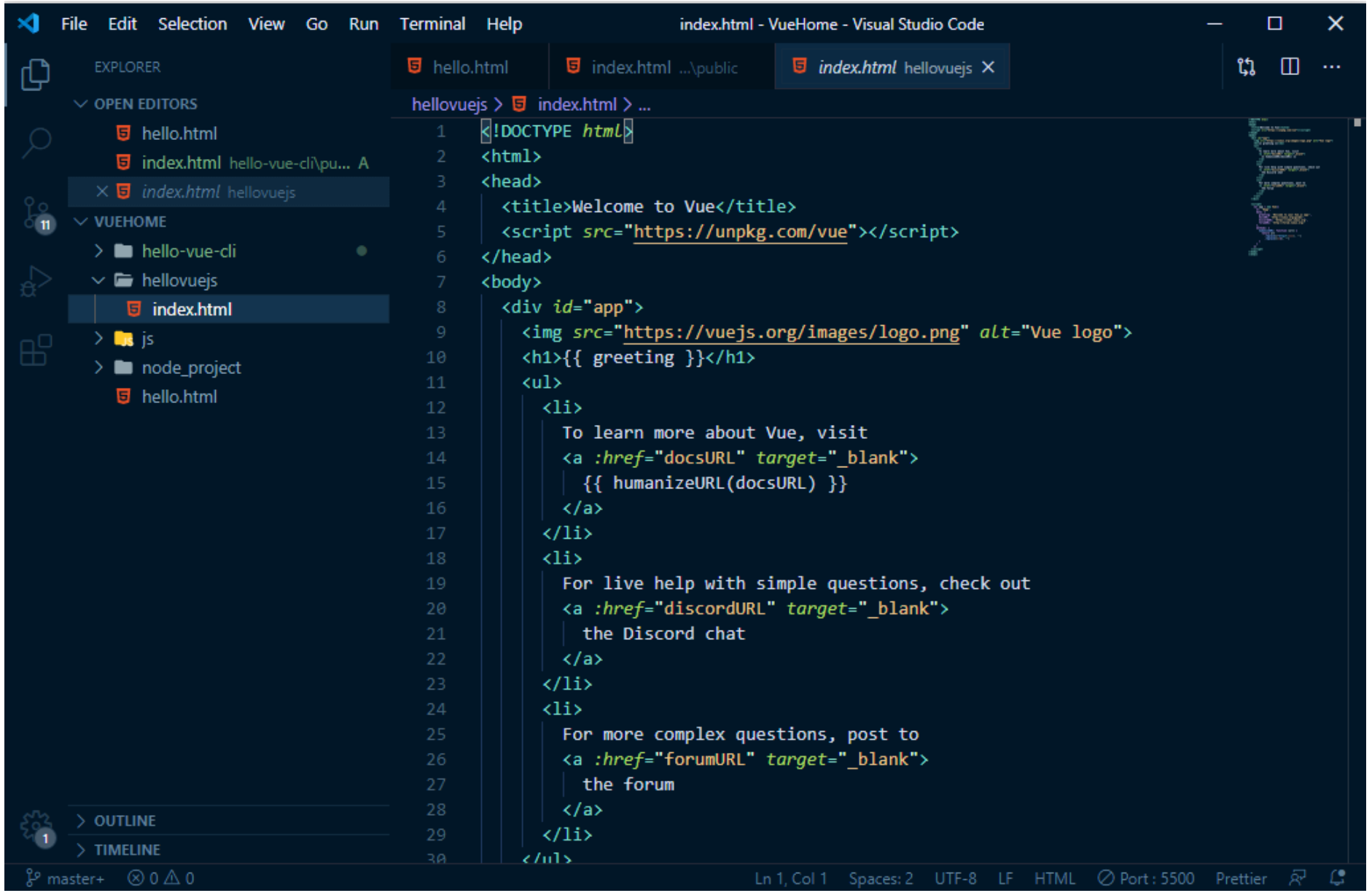
  $ vue init [Template이름] [Project 이름]

- hellovuejs Project 생성하기

  $ vue init simple hellovuejs

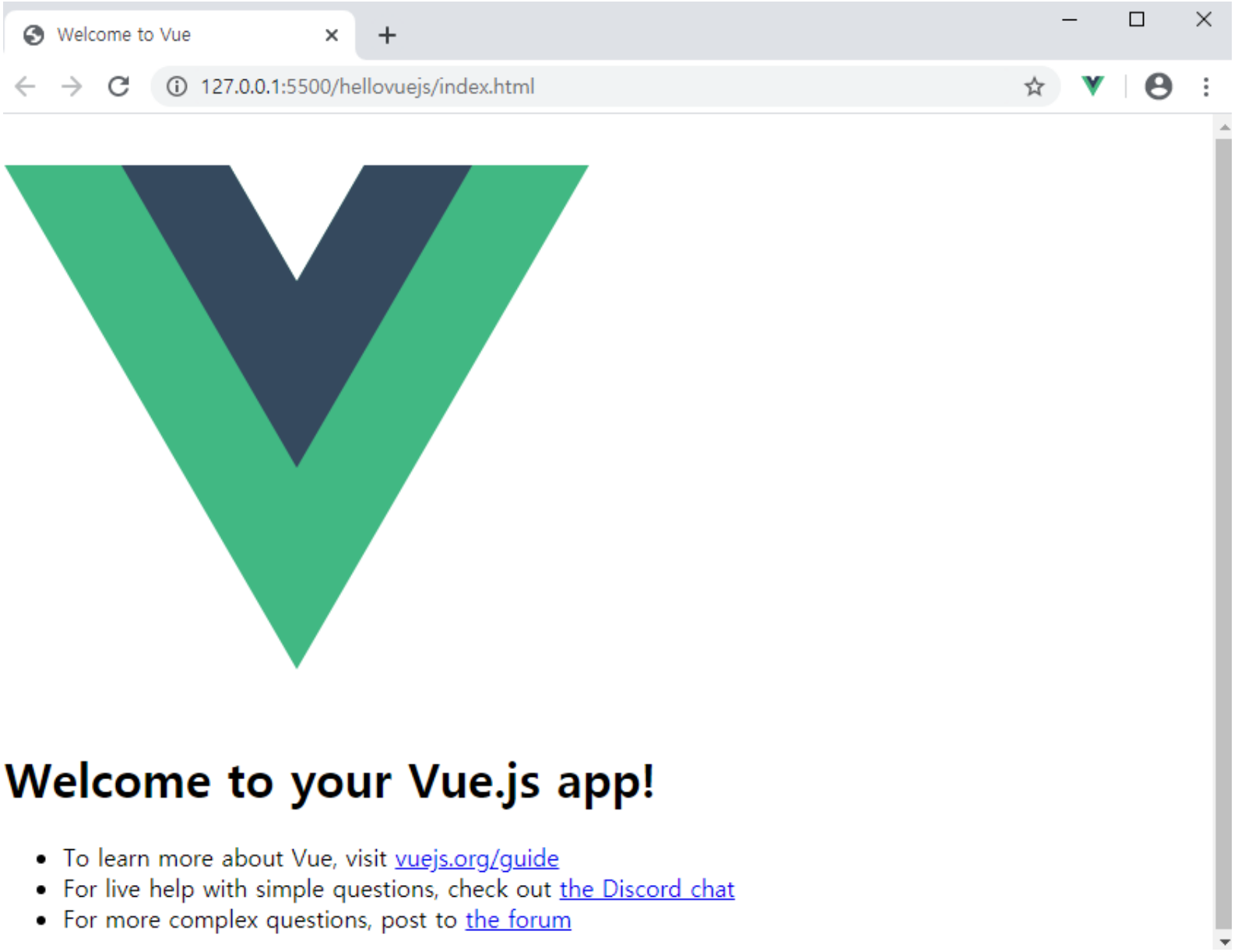
```
C:₩VueHome>vue init simple hellovuejs

? name hellovuejs

   vue-cli · Generated "hellovuejs".


C:₩VueHome>
```

Vue-CLI (Cont.)

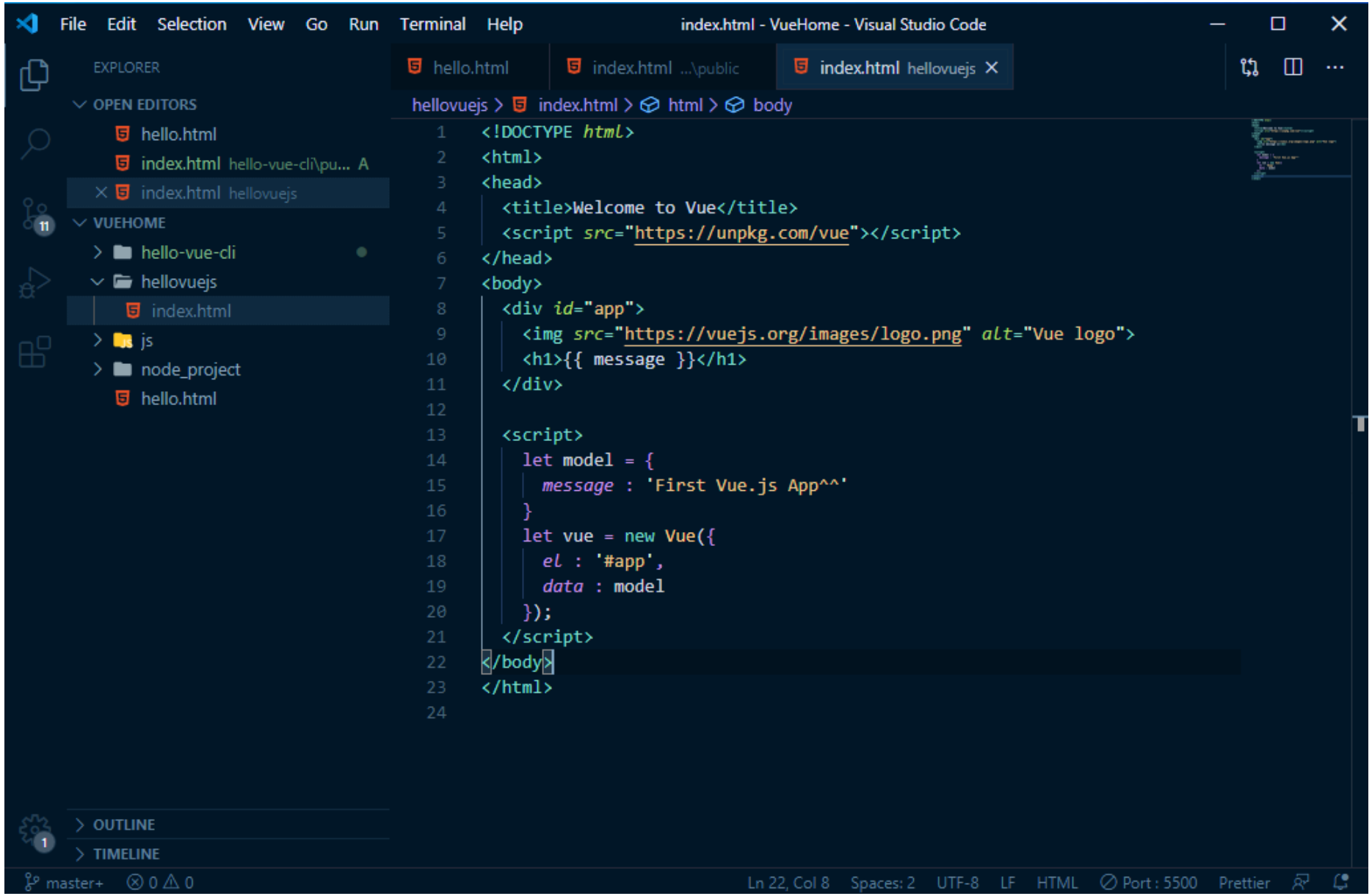

File Edit Selection View Go Run Terminal Help
index.html - VueHome - Visual Studio Code
EXPLORER
OPEN EDITORS
hello.html
index.html hello-vue-cli\pu... A
index.html hellovuejs
VUEHOME
hello-vue-cli
hellovuejs
index.html
js
node_project
hello.html
OUTLINE
TIMELINE
hello.html
index.html ...\public
index.html hellovuejs
hellovuejs > index.html > ...
<!DOCTYPE html>
<html>
<head>
<title>Welcome to Vue</title>
<script src="https://unpkg.com/vue"></script>
</head>
<body>

<img src="https://vuejs.org/images/logo.png" alt="Vue logo">
<h1>{{ greeting }}</h1>
<ul>
<li>
To learn more about Vue, visit
<a :href="docsURL" target="_blank">
{{ humanizeURL(docsURL) }}
</a>
</li>
<li>
For live help with simple questions, check out
<a :href="discordURL" target="_blank">
the Discord chat
</a>
</li>
<li>
For more complex questions, post to
<a :href="forumURL" target="_blank">
the forum
</a>
</li>
master+ 0 0
Ln 1, Col 1 Spaces: 2 UTF-8 LF HTML Port : 5500 Prettier

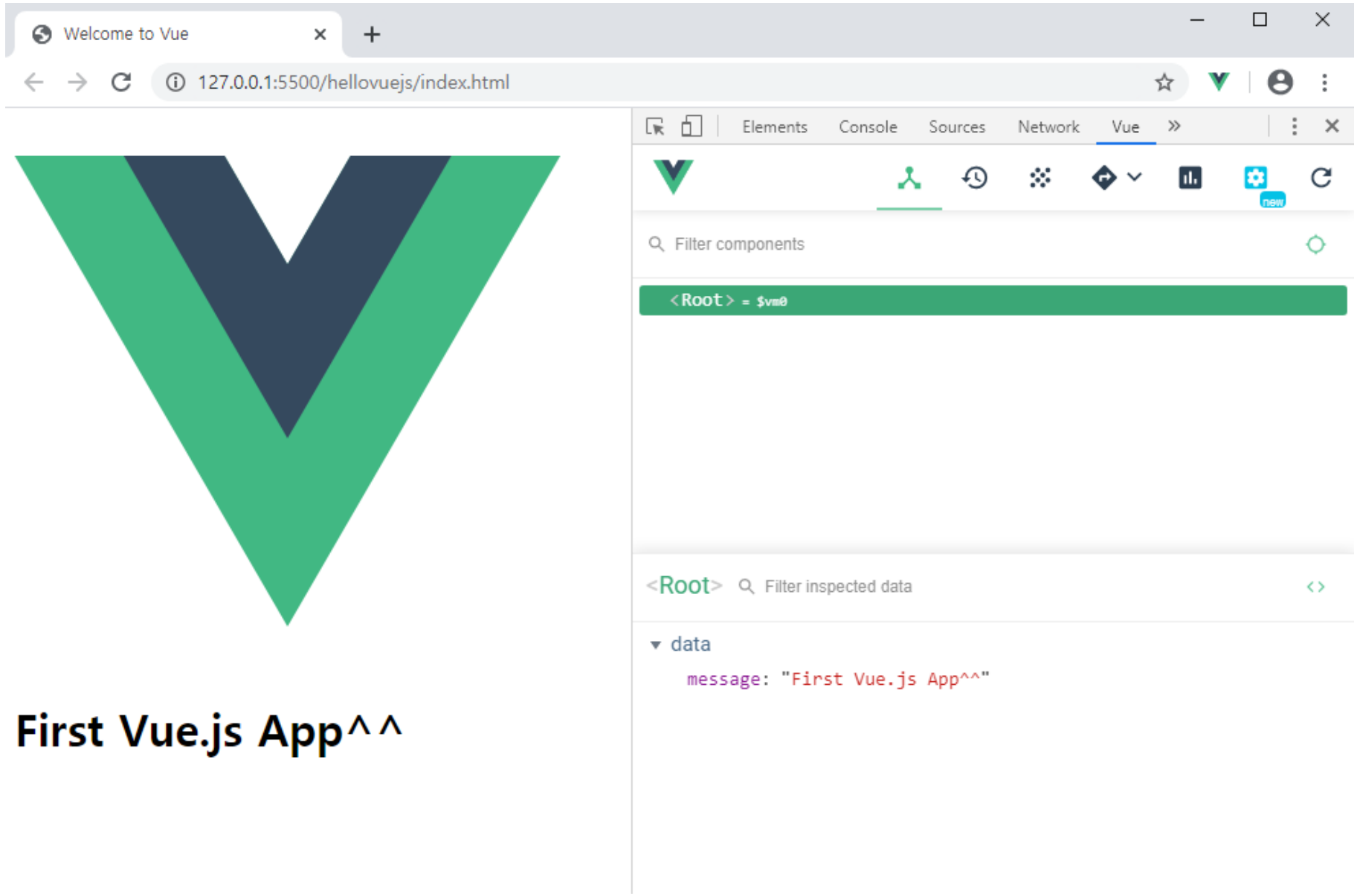
Vue-CLI (Cont.)


Welcome to Vue
127.0.0.1:5500/hellovuejs/index.html
Welcome to your Vue.js app!
To learn more about Vue, visit vuejs.org/guide
For live help with simple questions, check out the Discord chat
For more complex questions, post to the forum

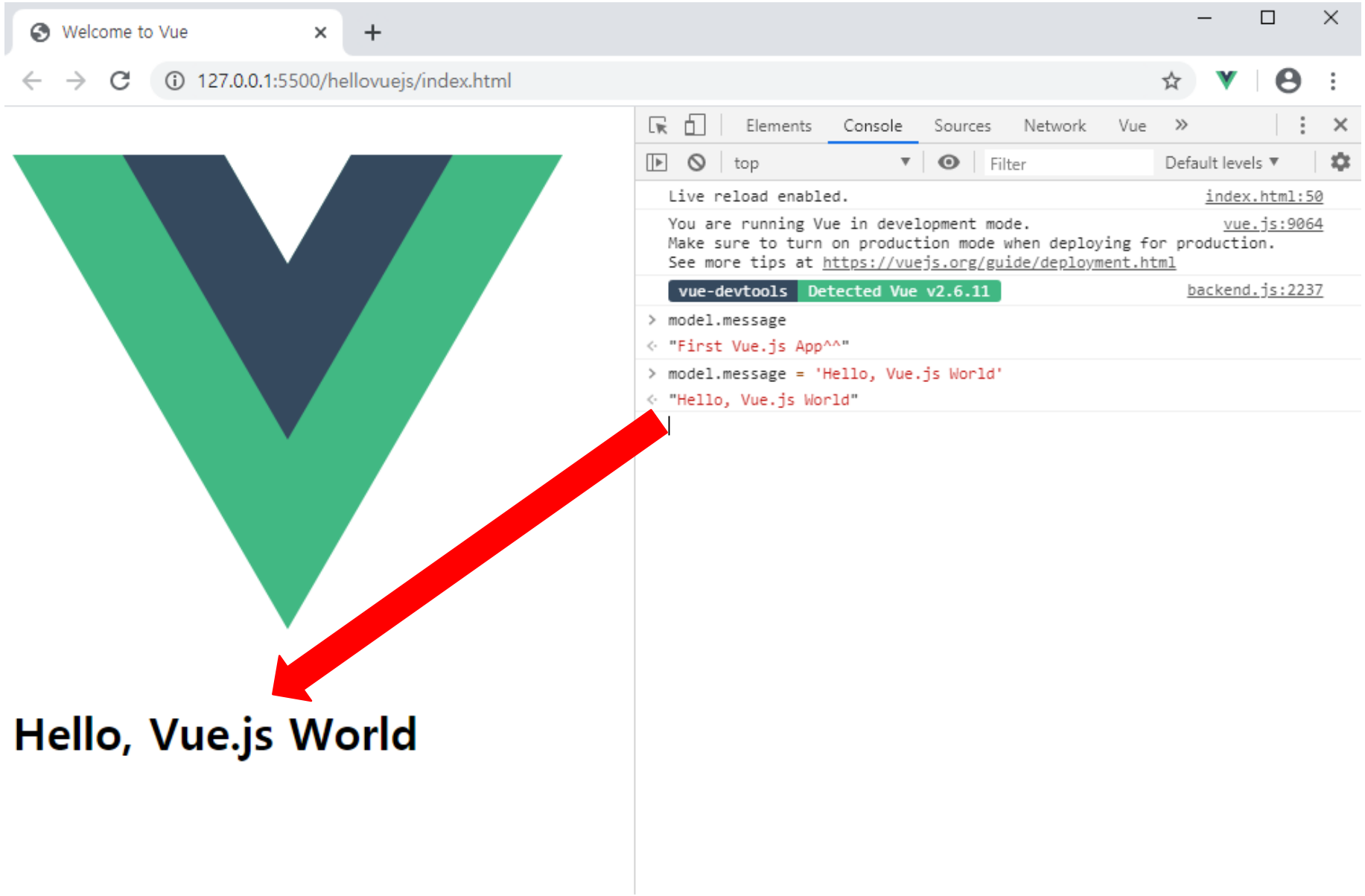
Vue-CLI (Cont.)


File Edit Selection View Go Run Terminal Help
index.html - VueHome - Visual Studio Code
EXPLORER
OPEN EDITORS
hello.html
index.html hello-vue-cli\pu... A
index.html hellovuejs
VUEHOME
hello-vue-cli
hellovuejs
index.html
js
node_project
hello.html
hello.html
index.html ...\public
index.html hellovuejs
hellovuejs > index.html > html > body
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <title>Welcome to Vue</title>
5 <script src="https://unpkg.com/vue"></script>
6 </head>
7 <body>
8
9 <img src="https://vuejs.org/images/logo.png" alt="Vue logo">
10 <h1>{{ message }}</h1>
11
12
13 <script>
14 let model = {
15 message : 'First Vue.js App^^'
16 }
17 let vue = new Vue({
18 el : '#app',
19 data : model
20 });
21 </script>
22 </body>
23 </html>
24
OUTLINE
TIMELINE
master+ 0 0
Ln 22, Col 8 Spaces: 2 UTF-8 LF HTML Port : 5500 Prettier

Vue-CLI (Cont.)


Welcome to Vue
127.0.0.1:5500/hellovuejs/index.html
Elements
Console
Sources
Network
Vue
Filter components
<Root> = $vm0
First Vue.js App^^
<Root>
Filter inspected data
data
message: "First Vue.js App^^"

Vue-CLI (Cont.)


Welcome to Vue
127.0.0.1:5500/hellovuejs/index.html
Elements
Console
Sources
Network
Vue
top
Filter
Default levels
Live reload enabled.
index.html:50
You are running Vue in development mode.
Make sure to turn on production mode when deploying for production.
See more tips at https://vuejs.org/guide/deployment.html
vue.js:9064
vue-devtools
Detected Vue v2.6.11
backend.js:2237
model.message
"First Vue.js App^^"
model.message = 'Hello, Vue.js World'
"Hello, Vue.js World"
Hello, Vue.js World

Vue-CLI (Cont.)

$ vue init webpack hello-world

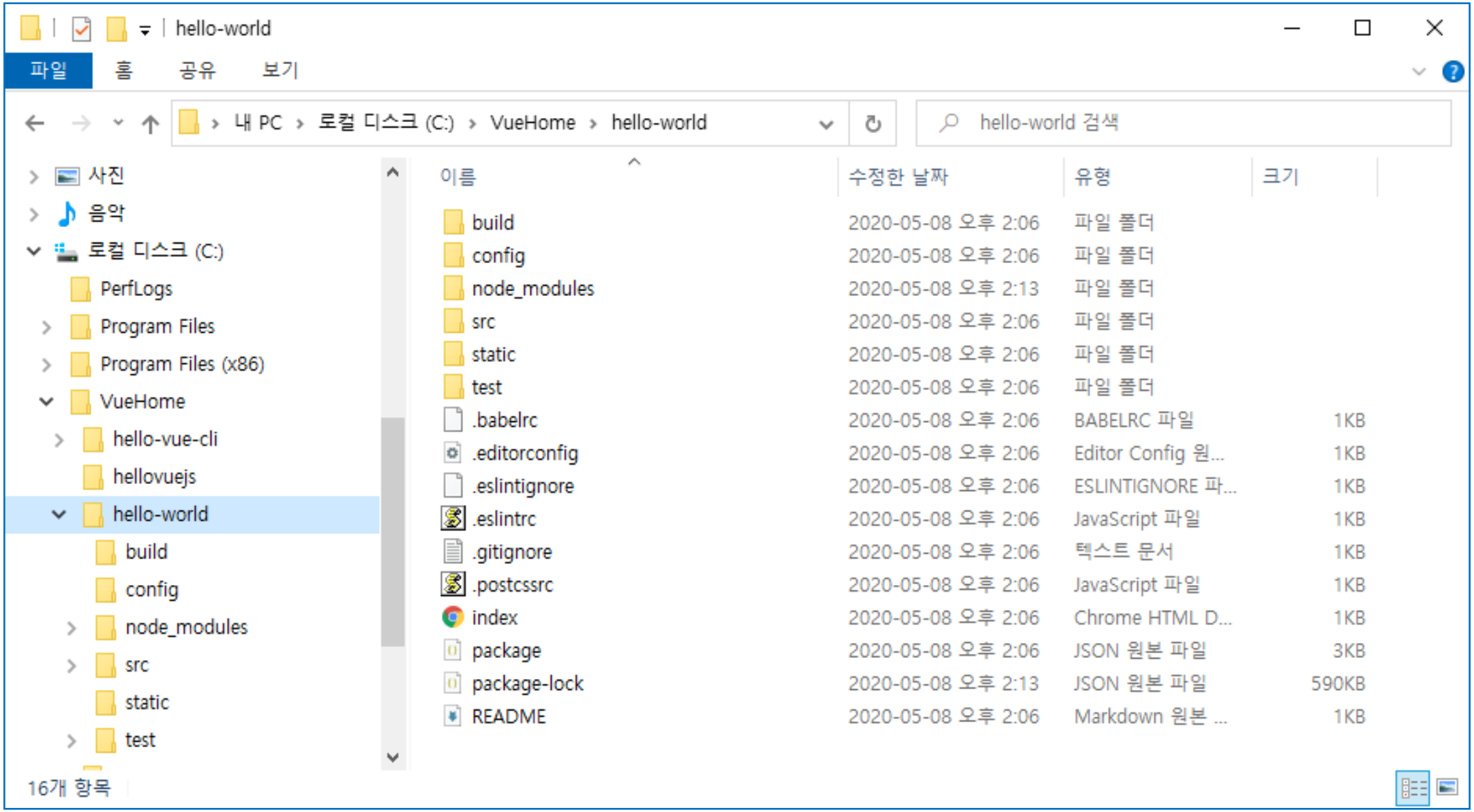
```
C:₩VueHome>vue init webpack hello-world

? Project name hello-world
? Project description A Vue.js project
? Author instructor
? Vue build standalone
? Install vue-router? Yes
? Use ESLint to lint your code? Yes
? Pick an ESLint preset Standard
? Set up unit tests Yes
? Pick a test runner jest
? Setup e2e tests with Nightwatch? Yes
? Should we run `npm install` for you after the project has been created? (recommended) npm

   vue-cli · Generated "hello-world".


# Installing project dependencies ...
# ========================
```

Vue-CLI (Cont.)

$ vue init webpack hello-world

```
Running eslint --fix to comply with chosen preset rules...
# ========================


> hello-world@1.0.0 lint C:₩VueHome₩hello-world
> eslint --ext .js,.vue src test/unit test/e2e/specs "--fix"


# Project initialization finished!
# ========================

To get started:

  cd hello-world
  npm run dev

Documentation can be found at https://vuejs-templates.github.io/webpack
```

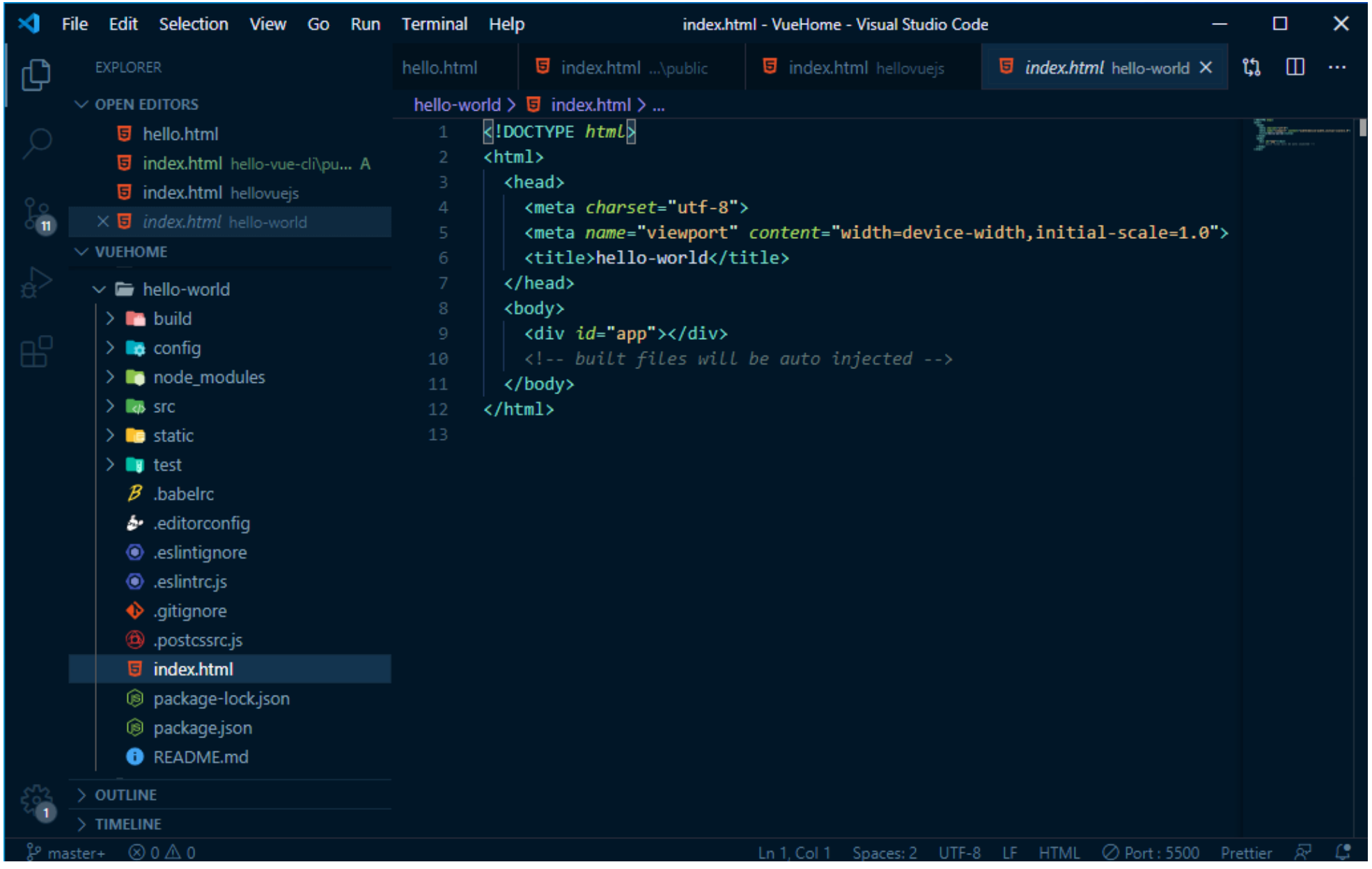
Vue-CLI (Cont.)


hello-world
파일
홈
공유
보기
내 PC › 로컬 디스크 (C:) › VueHome › hello-world
hello-world 검색
사진
음악
로컬 디스크 (C:)
PerfLogs
Program Files
Program Files (x86)
VueHome
hello-vue-cli
hellovuejs
hello-world
build
config
node_modules
src
static
test
이름
수정한 날짜
유형
크기
build 2020-05-08 오후 2:06 파일 폴더
config 2020-05-08 오후 2:06 파일 폴더
node_modules 2020-05-08 오후 2:13 파일 폴더
src 2020-05-08 오후 2:06 파일 폴더
static 2020-05-08 오후 2:06 파일 폴더
test 2020-05-08 오후 2:06 파일 폴더
.babelrc 2020-05-08 오후 2:06 BABELRC 파일 1KB
.editorconfig 2020-05-08 오후 2:06 Editor Config 원... 1KB
.eslintignore 2020-05-08 오후 2:06 ESLINTIGNORE 파... 1KB
.eslintrc 2020-05-08 오후 2:06 JavaScript 파일 1KB
.gitignore 2020-05-08 오후 2:06 텍스트 문서 1KB
.postcssrc 2020-05-08 오후 2:06 JavaScript 파일 1KB
index 2020-05-08 오후 2:06 Chrome HTML D... 1KB
package 2020-05-08 오후 2:06 JSON 원본 파일 3KB
package-lock 2020-05-08 오후 2:13 JSON 원본 파일 590KB
README 2020-05-08 오후 2:06 Markdown 원본 ... 1KB
16개 항목

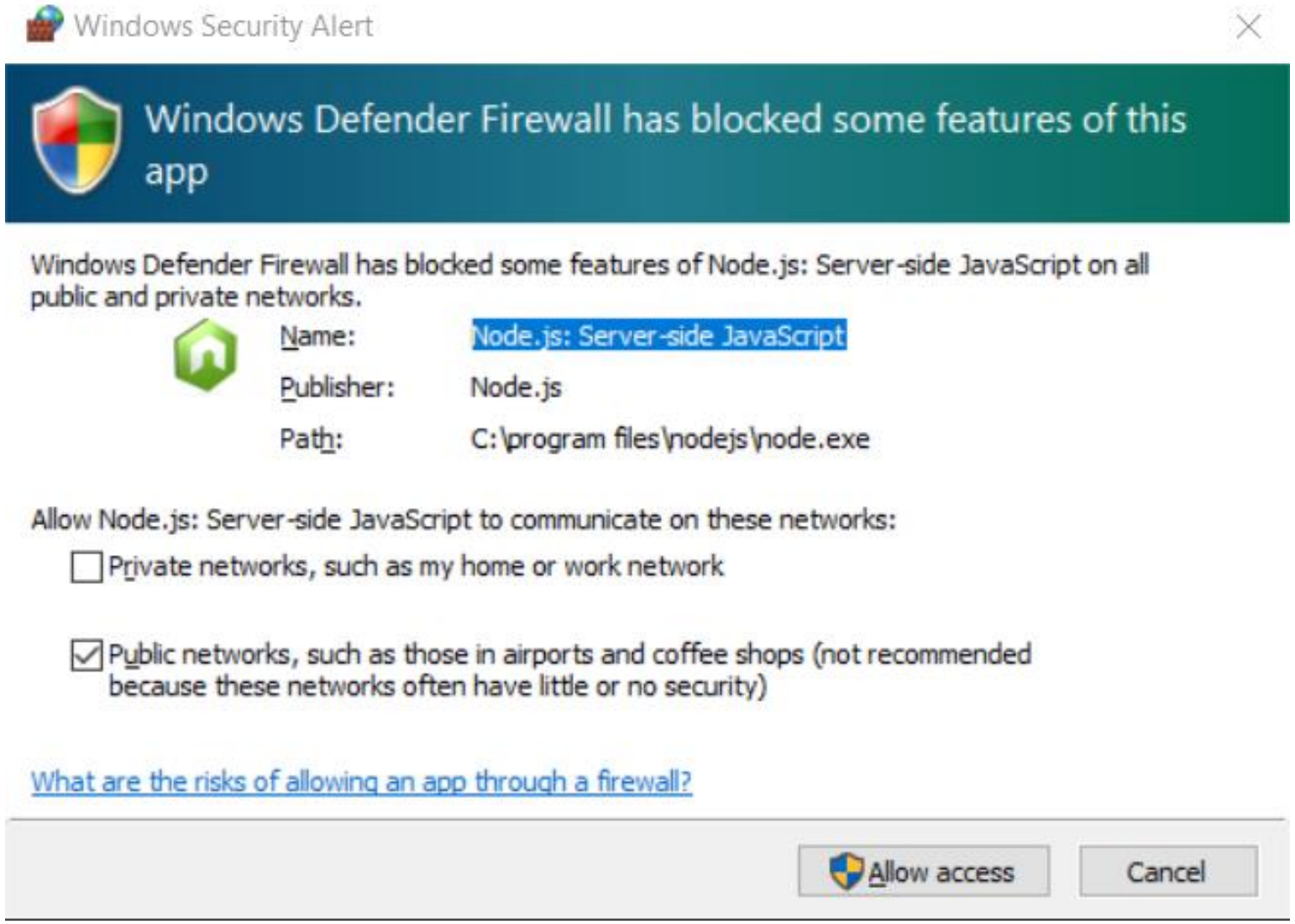
Vue-CLI (Cont.)

```
C:₩VueHome>cd hello-world

C:₩VueHome₩hello-world>npm run dev

> hello-world@1.0.0 dev C:₩VueHome₩hello-world
> webpack-dev-server --inline --progress --config build/webpack.dev.conf.js

 13% building modules 28/31 modules 3 active ...=0!C:₩VueHome₩hello-world₩src₩App.vue{ parser: "babylo
n" } is deprecated; we now treat it as { parser: "babel" }.
 95% emitting

 DONE  Compiled successfully in 5956ms                                        14:15:38

 I  Your application is running here: http://localhost:8080
```

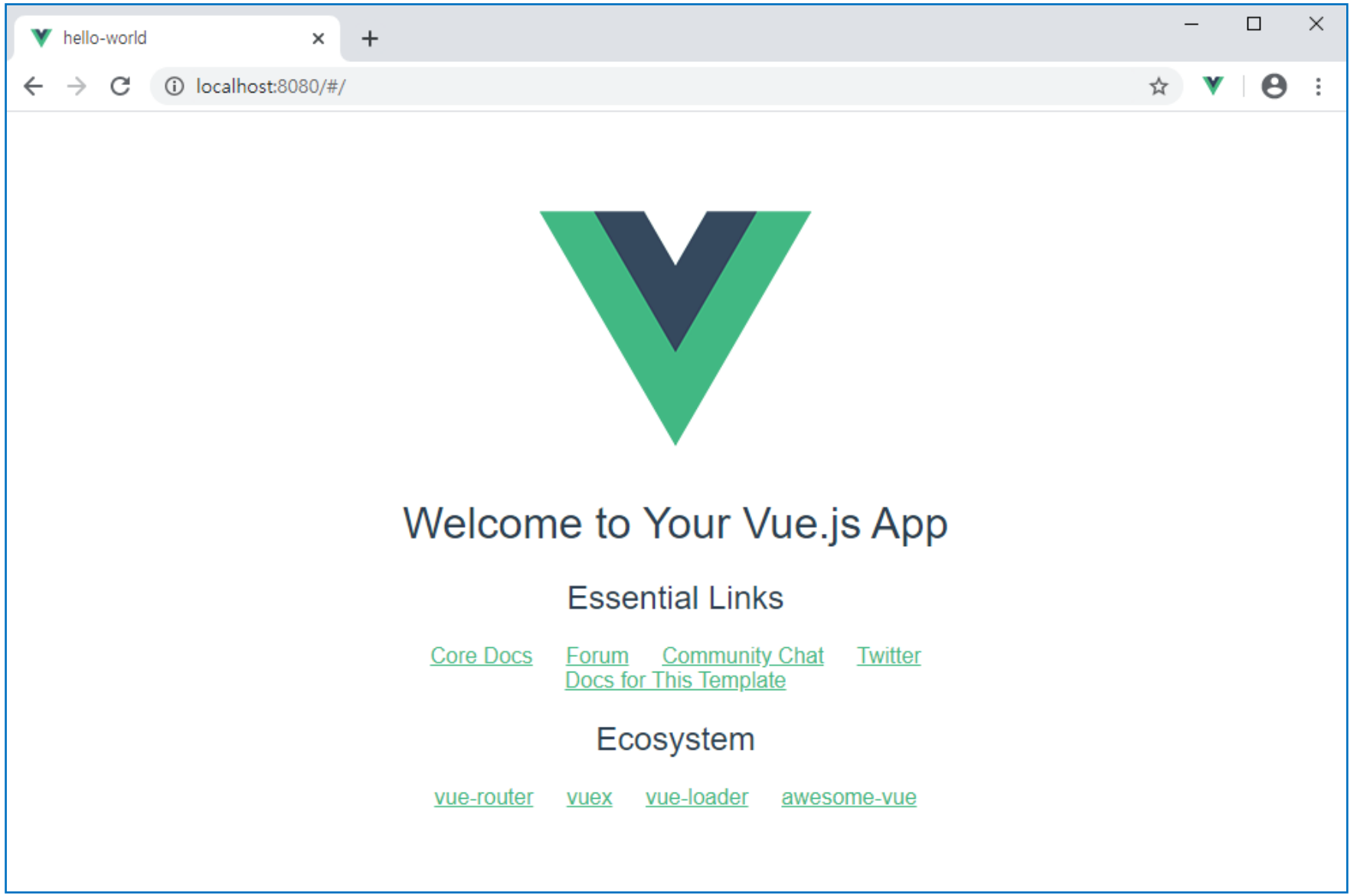
Vue-CLI (Cont.)


File Edit Selection View Go Run Terminal Help
index.html - VueHome - Visual Studio Code
EXPLORER
OPEN EDITORS
hello.html
index.html hello-vue-cli\pu... A
index.html hellovuejs
index.html hello-world
VUEHOME
hello-world
build
config
node_modules
src
static
test
.babelrc
.editorconfig
.eslintignore
.eslintrc.js
.gitignore
.postcssrc.js
index.html
package-lock.json
package.json
README.md
OUTLINE
TIMELINE
hello.html
index.html ...\public
index.html hellovuejs
index.html hello-world
hello-world > index.html > ...
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <meta charset="utf-8">
5 <meta name="viewport" content="width=device-width,initial-scale=1.0">
6 <title>hello-world</title>
7 </head>
8 <body>
9
10 <!-- built files will be auto injected -->
11 </body>
12 </html>
13
master+ 0 0
Ln 1, Col 1 Spaces: 2 UTF-8 LF HTML Port : 5500 Prettier

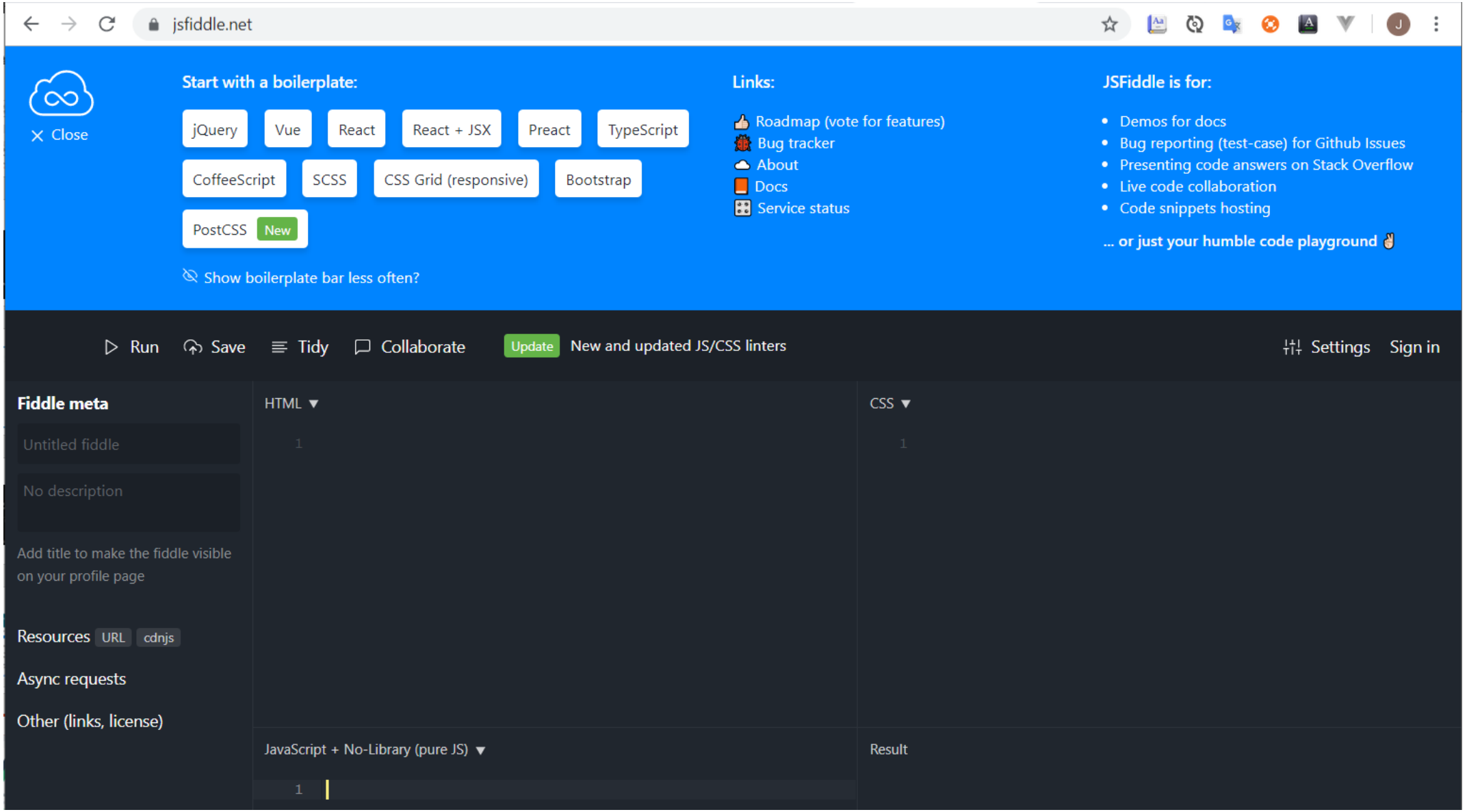
Vue-CLI (Cont.)


Windows Security Alert
Windows Defender Firewall has blocked some features of this app
Windows Defender Firewall has blocked some features of Node.js: Server-side JavaScript on all public and private networks.
Name: Node.js: Server-side JavaScript
Publisher: Node.js
Path: C:\program files\nodejs\node.exe
Allow Node.js: Server-side JavaScript to communicate on these networks:
Private networks, such as my home or work network
Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)
What are the risks of allowing an app through a firewall?
Allow access
Cancel

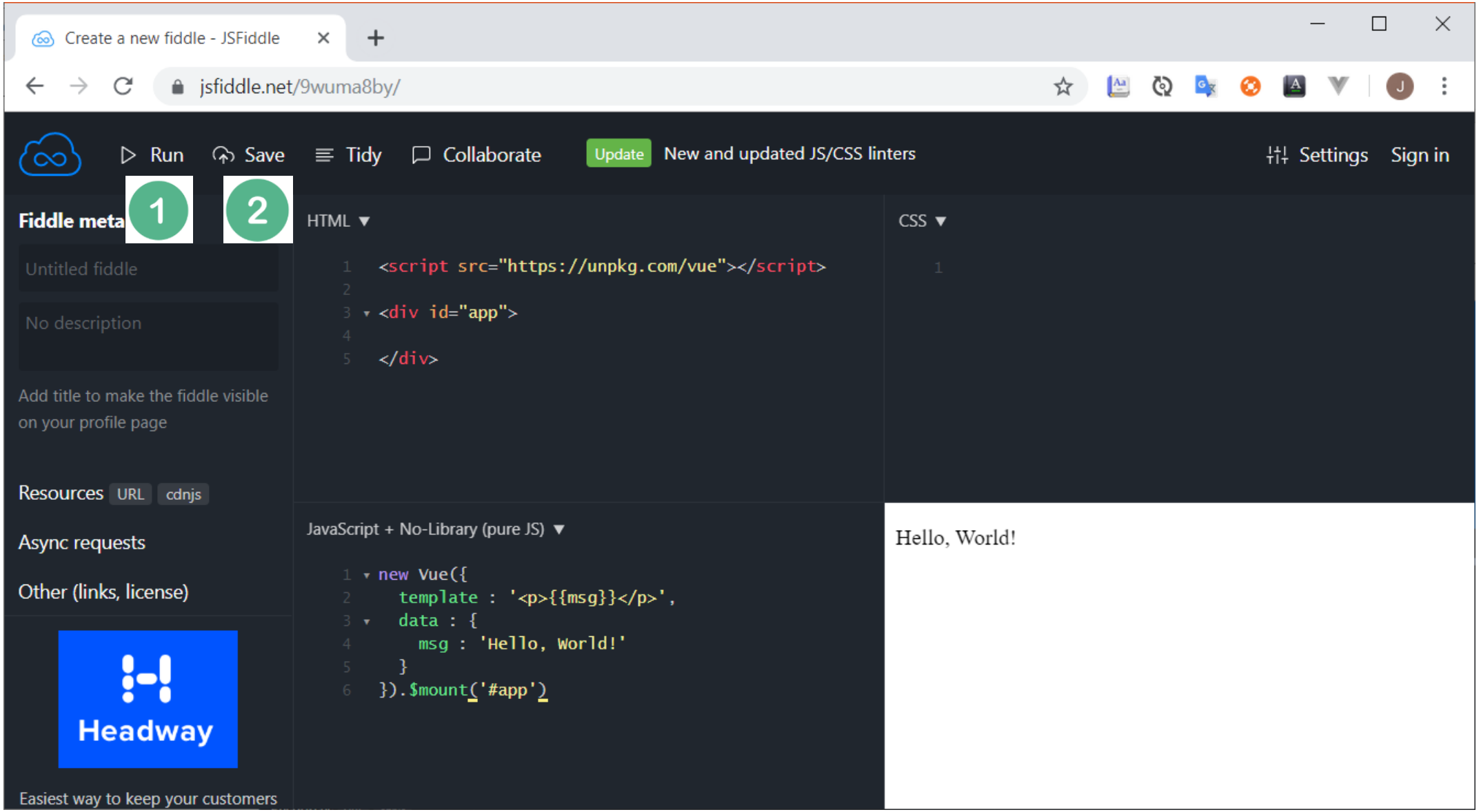
Vue-CLI (Cont.)


hello-world
localhost:8080/#/
Welcome to Your Vue.js App
Essential Links
Core Docs
Forum
Community Chat
Twitter
Docs for This Template
Ecosystem
vue-router
vuex
vue-loader
awesome-vue

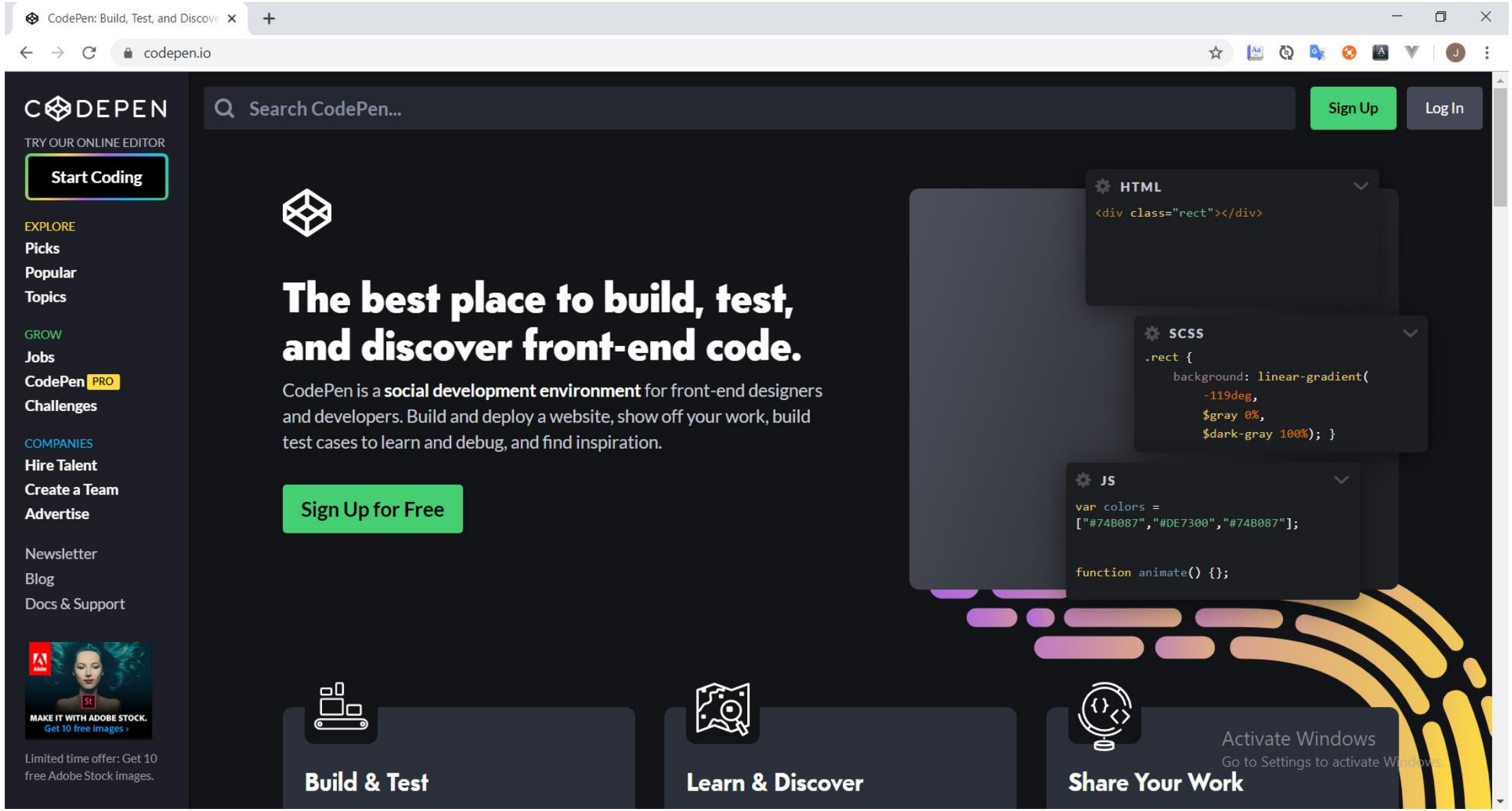
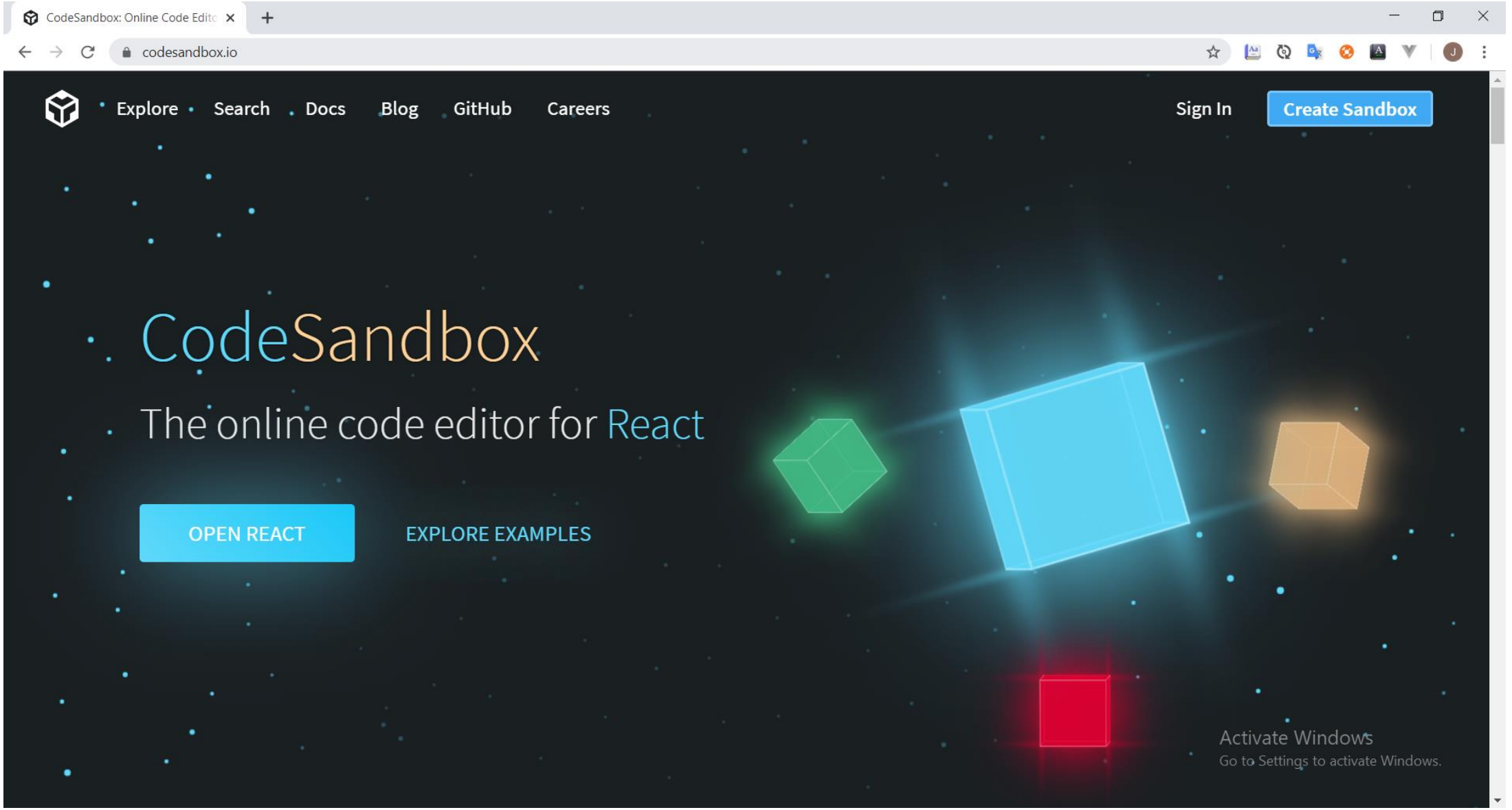
Online Editor – JSFiddle(https://jsfiddle.net)



Online Editor – JSFiddle(https://jsfiddle.net) (Cont.)



Online Editor – CodePen(https://codepen.io)



Online Editor – CodeSandbox(https://codesandbox.io)