

Lesson 01 Demo 02

Using Angular CLI Commands

Objective: To use Angular CLI commands

Tools required: Visual Studio Code

Prerequisites: JavaScript

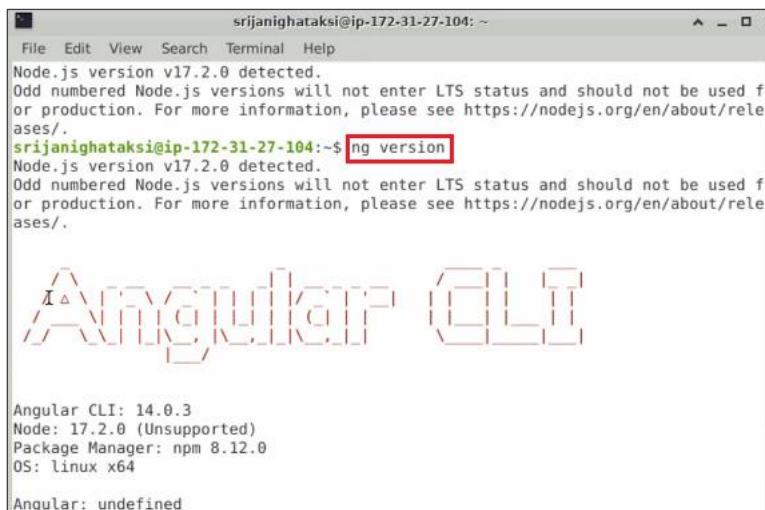
Steps to be followed:

1. Check the version
2. Use the ng help command
3. Use the ng build command
4. Use the ng test command
5. Use the ng g c command
6. Use the ng g service command
7. Use the ng lint command

Step 1: Check the version

1.1 Open the terminal and run the following command to check the version of Angular CLI:

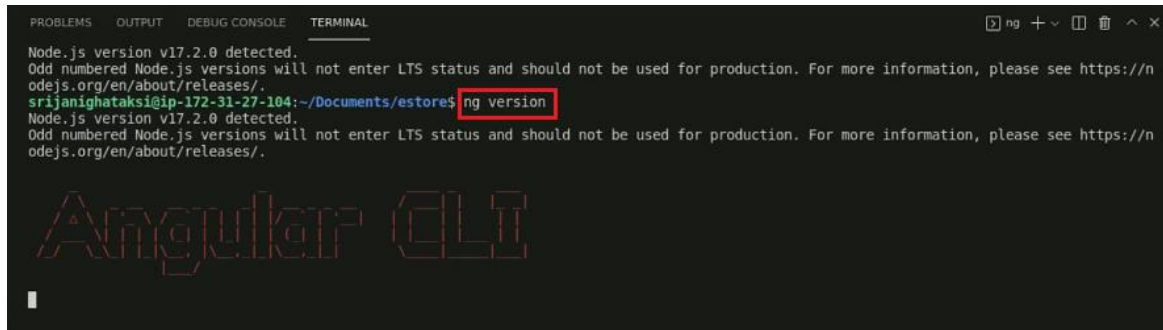
ng version



```
srijanighataksi@ip-172-31-27-104: ~  
File Edit View Search Terminal Help  
Node.js version v17.2.0 detected.  
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://nodejs.org/en/about/releases/.  
srijanighataksi@ip-172-31-27-104:~$ ng version  
Node.js version v17.2.0 detected.  
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://nodejs.org/en/about/releases/.  
  
Angular CLI  
  
Angular CLI: 14.0.3  
Node: 17.2.0 (Unsupported)  
Package Manager: npm 8.12.0  
OS: linux x64  
Angular: undefined
```

1.2 Run the same command in the Visual Studio Code terminal:

ng version



```

Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://nodejs.org/en/about/releases/.
srijanighataksi@ip-172-31-27-104:~/Documents/estores$ ng version
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://nodejs.org/en/about/releases/.

Angular CLI

```

Step 2: Use the ng help command

2.1 Run the following command to see the list of available commands:

ng help



```

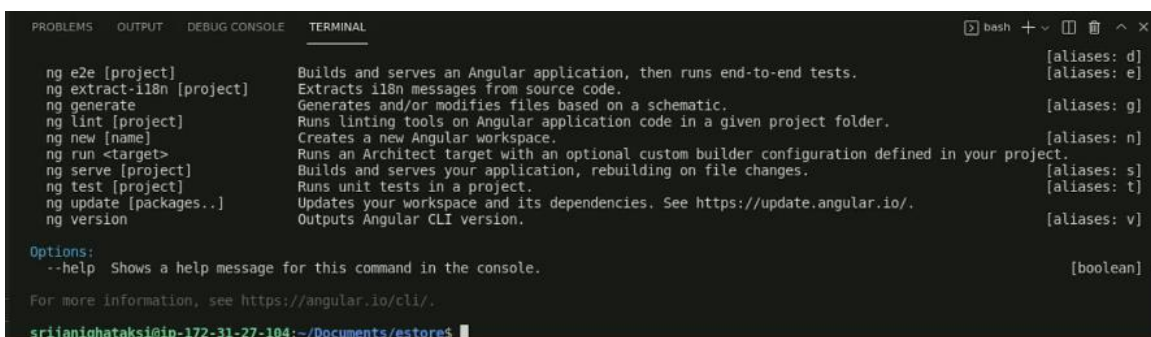
OS: linux x64

Angular: 14.0.3
... animations, cli, common, compiler, compiler-cli, core, forms
... platform-browser, platform-browser-dynamic, router

Package                                  Version
-----
@angular-devkit/architect                0.1400.3
@angular-devkit/build-angular            14.0.3
@angular-devkit/core                     14.0.3
@angular-devkit/schematics               14.0.3
@schematics/angular                     14.0.3
rxjs                                     7.5.5
typescript                               4.7.4

Warning: The current version of Node (17.2.0) is not supported by Angular.
srijanighataksi@ip-172-31-27-104:~/Documents/estores$ ng help

```



```

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

ng e2e [project]                Builds and serves an Angular application, then runs end-to-end tests.
ng extract-i18n [project]       Extracts i18n messages from source code.
ng generate                      Generates and/or modifies files based on a schematic.
ng lint [project]               Runs linting tools on Angular application code in a given project folder.
ng new [name]                   Creates a new Angular workspace.
ng run <target>                 Runs an Architect target with an optional custom builder configuration defined in your project.
ng serve [project]              Builds and serves your application, rebuilding on file changes.
ng test [project]               Runs unit tests in a project.
ng update [packages..]          Updates your workspace and its dependencies. See https://update.angular.io/.
ng version                       Outputs Angular CLI version.

Options:
  --help  Shows a help message for this command in the console.

For more information, see https://angular.io/cli/.
srijanighataksi@ip-172-31-27-104:~/Documents/estores$

```

Step 3: Use the ng build command

3.1 Run the following command to create a distribution directory:

ng build

The screenshot shows the VS Code interface with the Explorer on the left and the Terminal on the right. The Explorer shows the project structure with files like .angular, .vscode, node_modules, src, .browserslistrc, .editorconfig, .gitignore, angular.json, karma.conf.js, package-lock.json, package.json, README.md, tsconfig.app.json, tsconfig.json, and tsconfig.spec.json. The Terminal shows the Angular CLI help for the 'ng build' command.

```
ng lint [project]           Runs linting tools on Angular application code in a given project folder.
ng new [name]              Creates a new Angular workspace. [aliases: n]
ng run <target>            Runs an Architect target with an optional custom builder configuration defined in your project. [aliases: s]
ng serve [project]        Builds and serves your application, rebuilding on file changes. [aliases: t]
ng test [project]         Runs unit tests in a project. [aliases: v]
ng update [packages...]   Updates your workspace and its dependencies. See https://update.angular.io/.
ng version                Outputs Angular CLI version.

Options:
--help Shows a help message for this command in the console.

For more information, see https://angular.io/cli/.
```

The command `ng build` is highlighted in red in the terminal.

3.2 Check for the distribution directory in the project explorer

The screenshot shows the VS Code interface with the Explorer on the left and the Terminal on the right. The Explorer shows the project structure with the 'dist' directory highlighted in red. The Terminal shows the output of the 'ng build' command.

```
srijanighataksi@ip-172-31-27-104:~/Documents/estores$ ng build
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://nodejs.org/en/about/releases/.
✓ Browser application bundle generation complete.
✓ Copying assets complete.
✓ Index html generation complete.
```

Initial Chunk File	Names	Raw Size	Estimated Transfer Size
main.9977e8b011524401.js	main	195.30 kB	53.65 kB
polyfills.1afb38b5d7f24be8.js	polyfills	33.07 kB	10.65 kB
runtime.fef5a72271928e6b.js	runtime	1.04 kB	599 bytes
styles.ef46db3751d8e999.css	styles	0 bytes	-
Initial Total		229.40 kB	64.88 kB

Build at: 2022-06-24T12:46:12.796Z - Hash: ae52c2a6711e671a - Time: 15823ms
srijanighataksi@ip-172-31-27-104:~/Documents/estores\$

Step 4: Use the ng test command

4.1 Run the following command to do unit testing:

ng test

```

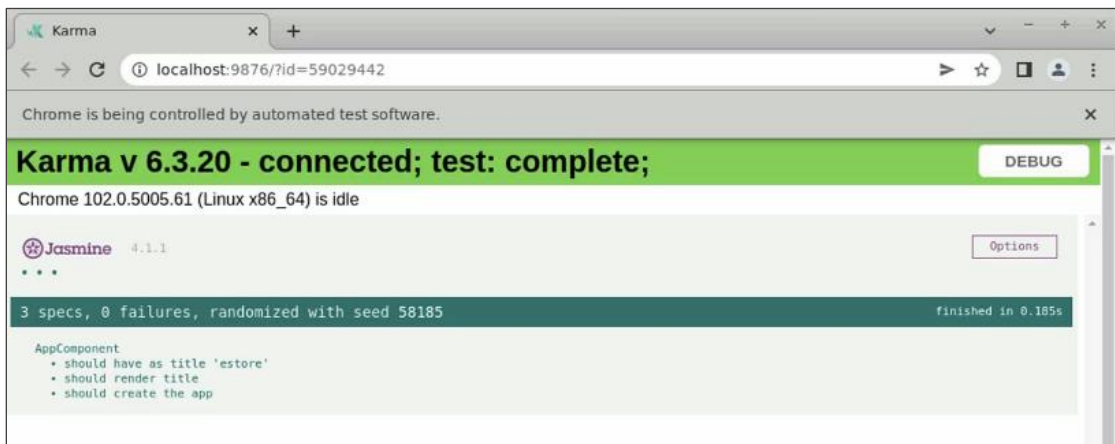
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
✓ Copying assets complete.
✓ Index html generation complete.

Initial Chunk Files | Names | Raw Size | Estimated Transfer Size
main.9977e8b0115244bf.js | main | 195.30 kB | 53.65 kB
polyfills.1afb38b5d7f24be8.js | polyfills | 33.07 kB | 10.65 kB
runtime.fef5a72271920e6b.js | runtime | 1.04 kB | 599 bytes
styles.ef46db3751d8e999.css | styles | 0 bytes | -
| Initial Total | 229.40 kB | 64.88 kB

Build at: 2022-06-24T12:46:12.796Z - Hash: ae52c2a6711e671a - Time: 15823ms
srijanighataksi@ip-172-31-27-104:~/Documents/estores$ ng test
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://nodejs.org/en/about/releases/.
24 06 2022 12:49:54.524:WARN [karma]: No captured browser, open http://localhost:9876/

```

4.2 Once the browser pops up, check if the test ran successfully or not



Step 5: Use the ng g c command

5.1 Run the following command to generate **the profile** component:

ng g c profile

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
srijanighataksi@ip-172-31-27-104:~/Documents/estores$ ng g c profile
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://nodejs.org/en/about/releases/.
CREATE src/app/profile/profile.component.css (0 bytes)
CREATE src/app/profile/profile.component.html (22 bytes)
CREATE src/app/profile/profile.component.spec.ts (606 bytes)
CREATE src/app/profile/profile.component.ts (279 bytes)
UPDATE src/app/app.module.ts (479 bytes)
srijanighataksi@ip-172-31-27-104:~/Documents/estores$

```

5.2 Now, check if the **profile** component is created or not

```

src > app > profile > ts profile.component.spec.ts > ...
1 import { ComponentFixture, TestBed } from '@angular/core/testing';
2
3 import { ProfileComponent } from './profile.component';
4
5 describe('ProfileComponent', () => {
6   let component: ProfileComponent;
7   let fixture: ComponentFixture<ProfileComponent>;
8
9   beforeEach(async () => {
10     await TestBed.configureTestingModule({
11       declarations: [ ProfileComponent ]
12     })
13     .compileComponents();
14
15     fixture = TestBed.createComponent(ProfileComponent);
16     component = fixture.componentInstance;
  
```

```

srijanighataksi@ip-172-31-27-104:~/Documents/estore$ ng g c profile
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://n
odejs.org/en/about/releases/.
CREATE src/app/profile/profile.component.css (0 bytes)
CREATE src/app/profile/profile.component.html (22 bytes)
CREATE src/app/profile/profile.component.spec.ts (606 bytes)
UPDATE src/app/app.module.ts (479 bytes)
srijanighataksi@ip-172-31-27-104:~/Documents/estore$
  
```

Step 6: Use the ng g service command

6.1 Run the following command to generate service:

ng g service DataProvider

```

srijanighataksi@ip-172-31-27-104:~/Documents/estore$ ng g c profile
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://n
odejs.org/en/about/releases/.
CREATE src/app/profile/profile.component.css (0 bytes)
CREATE src/app/profile/profile.component.html (22 bytes)
CREATE src/app/profile/profile.component.spec.ts (606 bytes)
UPDATE src/app/app.module.ts (479 bytes)
srijanighataksi@ip-172-31-27-104:~/Documents/estore$ ng g service DataProvider
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://n
odejs.org/en/about/releases/.
CREATE src/app/data-provider.service.spec.ts (388 bytes)
CREATE src/app/data-provider.service.ts (141 bytes)
srijanighataksi@ip-172-31-27-104:~/Documents/estore$
  
```

6.2 Now, check if the **DataProvider** service is created or not

```

src > app > ts data-provider.service.ts > ...
1 import { Injectable } from '@angular/core';
2
3 @Injectable({
4   providedIn: 'root'
5 })
6 export class DataProviderService {
7
8   constructor() { }
9
10
  
```

```

srijanighataksi@ip-172-31-27-104:~/Documents/estore$ ng g c profile
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://n
odejs.org/en/about/releases/.
CREATE src/app/profile/profile.component.css (0 bytes)
CREATE src/app/profile/profile.component.html (22 bytes)
CREATE src/app/profile/profile.component.spec.ts (606 bytes)
UPDATE src/app/app.module.ts (479 bytes)
srijanighataksi@ip-172-31-27-104:~/Documents/estore$ ng g service DataProvider
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://n
odejs.org/en/about/releases/.
CREATE src/app/data-provider.service.spec.ts (388 bytes)
CREATE src/app/data-provider.service.ts (141 bytes)
srijanighataksi@ip-172-31-27-104:~/Documents/estore$
  
```


Step 7: Use the ng lint command

7.1 Run the following command to run linting tools on the project:

ng lint

```

odejs.org/en/about/releases/.
CREATE src/app/data-provider.service.spec.ts (388 bytes)
CREATE src/app/data-provider.service.ts (141 bytes)
srijanighataksi@ip-172-31-27-104:~/Documents/estores$ ng lint
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production.
odejs.org/en/about/releases/.
Cannot find "lint" target for the specified project.
You can add a package that implements these capabilities.

For example:
ESLint: ng add @angular-eslint/schematics
  
```

7.2 If the package was not initially available, it is now installed. Run the same command to run the linting tools:

ng lint

```

UPDATE angular.json (4144 bytes)
✓ Packages installed successfully.
srijanighataksi@ip-172-31-27-104:~/Documents/estores$ ng lint
Node.js version v17.2.0 detected.
  
```

7.3 Check if the problem pointed out is accurate or not. It is mentioned in the outcome, the **Lifecycle methods should not be empty**. Open the **profile.component.ts** file, and you can see that the constructor is empty. Hence, we can say that the command worked successfully.

```

EXPLORER
  ESTORE
    > angular
    > .vscode
    > cypress
    > dist
    > node_modules
    > src
    > app
      > profile
        # profile.component.css U
        # profile.component.html U
        # ts profile.component.spec... U
        # ts profile.component.ts U
        ts app-routing.module.ts A
        # app.component.css A
        # app.component.html A
        ts app.component.spec.ts A
        ts app.component.ts A
        ts app.module.ts M
        ts data-provider.service.sp... U
        ts data-provider.service.ts U
        > assets
        > environments
        ★ favicon.ico A
        # index.html A
        ts main.ts A
        ts polyfills.ts A
        # styles.css A
    > OUTLINE
    > TIMELINE

ts profile.component.ts U x
src > app > profile > ts profile.component.ts > ProfileComponent > constructor
1 import { Component, OnInit } from '@angular/core';
2
3 @Component({
4   selector: 'app-profile',
5   templateUrl: './profile.component.html',
6   styleUrls: ['./profile.component.css']
7 })
8 export class ProfileComponent implements OnInit {
9
10  constructor() {}
11
12  ngOnInit(): void {
13  }
14 }
15
16

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
UPDATE angular.json (4144 bytes)
✓ Packages installed successfully.
srijanighataksi@ip-172-31-27-104:~/Documents/estores$ ng lint
Node.js version v17.2.0 detected.
Warning: 'noEslintrc' option has been declared with a 'no' prefix in the schema. Please file an issue with the author of this package.

Open file in editor (ctrl + click)
/home/srijanighataksi/Documents/estore/src/app/profile/profile.component.ts
12:3 error Lifecycle methods should not be empty @angular-eslint/no-empty-lifecycle-method

* 1 problem (1 error, 0 warnings)
Lint errors found in the listed files.
srijanighataksi@ip-172-31-27-104:~/Documents/estores$
  
```