

Module 14 Group Project Assignment

Documentation

Team Members

Vishal Chandra Podishetty (G01426953)

Nihal Reddy Cheruku (G01455466)

1. Install Node.js v22.11.0 (LTS) on Windows using fnm (Fast Node Manager) from <https://nodejs.org/en/download/prebuilt-installer>
2. Check whether the installation is complete

```
C:\Users\visha>node -v
v22.11.0

C:\Users\visha>npm -v
10.9.0
```

3. Install Angular CLI globally

```
C:\Users\visha>npm install -g @angular/cli

added 296 packages in 13s

52 packages are looking for funding
  run `npm fund` for details
npm notice
npm notice New patch version of npm available! 10.9.0 -> 10.9.1
npm notice Changelog: https://github.com/npm/cli/releases/tag/v10.9.1
npm notice To update run: npm install -g npm@10.9.1
npm notice
```

4. Verify the version Angular CLI

```
C:\Users\visha>ng version

Angular CLI

Angular CLI: 19.0.2
Node: 22.11.0
Package Manager: npm 10.9.0
OS: win32 x64

Angular:
...

Package                                Version
-----
@angular-devkit/architect              0.1900.2 (cli-only)
@angular-devkit/core                   19.0.2 (cli-only)
@angular-devkit/schematics              19.0.2 (cli-only)
@schematics/angular                    19.0.2 (cli-only)
```

5. Create a new Angular project name ssurvey

```
C:\Users\visha> ng new ssurvey

Would you like to share pseudonymous usage data about this project with the
Angular Team
at Google under Google's Privacy Policy at
https://policies.google.com/privacy. For more
details and how to change this setting, see
https://angular.dev/cli/analytics.

no
Global setting: disabled
Local setting: No local workspace configuration file.
Effective status: disabled
✔ Which stylesheet format would you like to use? CSS [
https://developer.mozilla.org/docs/Web/CSS ]
✔ Do you want to enable Server-Side Rendering (SSR) and Static Site
Generation (SSG/Prerendering)? no
```

6. Navigate to the newly created project and run the development server

```

C:\Users\visha>cd ssurvey

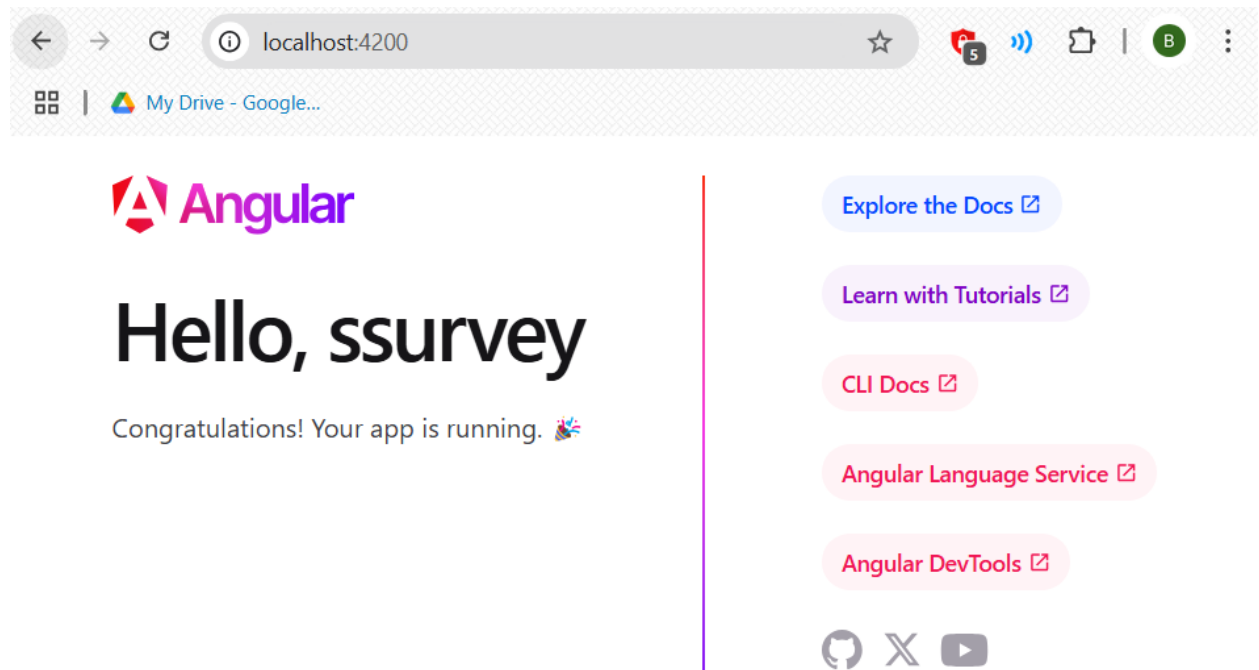
C:\Users\visha\ssurvey>ng serve
Initial chunk files | Names          | Raw size
polyfills.js       | polyfills      | 90.20 kB |
main.js            | main           | 18.18 kB |
styles.css         | styles        | 95 bytes |
                   | Initial total  | 108.47 kB

Application bundle generation complete. [3.457 seconds]

Watch mode enabled. Watching for file changes...
NOTE: Raw file sizes do not reflect development server per-request transform
ations.
  → Local:   http://localhost:4200/
  → press h + enter to show help

```

- Open <http://localhost:4200> in your browser



- In our project we will be using a total of 2 components. component 1: student survey page and component 2: which is the list of all submitted surveys

```

C:\Users\visha\ssurvey>ng generate component student-survey
CREATE src/app/student-survey/student-survey.component.html (30 bytes)
CREATE src/app/student-survey/student-survey.component.spec.ts (665 bytes)
CREATE src/app/student-survey/student-survey.component.ts (256 bytes)
CREATE src/app/student-survey/student-survey.component.css (0 bytes)

C:\Users\visha\ssurvey>ng generate component list-surveys
CREATE src/app/list-surveys/list-surveys.component.html (28 bytes)
CREATE src/app/list-surveys/list-surveys.component.spec.ts (651 bytes)
CREATE src/app/list-surveys/list-surveys.component.ts (248 bytes)
CREATE src/app/list-surveys/list-surveys.component.css (0 bytes)

```

9. Now open the project in vscode and open app.routes.ts , app.config.ts , app.component.html and update the files. Now run ng serve to see the updated page.

The screenshot shows a web browser window with the address bar displaying 'localhost:4200/survey-form'. The page title is 'Campus Survey'. The main content area contains a 'Student Survey Form' with the following fields:

- * First Name:
- * Last Name:
- * Street Address:
- * City:
- * State:
- Zip:
- * Telephone:
- * Email:
- * Date of Survey:

Below the form is a text input field with the label 'What did you like most about the campus?'.

10. Now open the student-surveys.component.html student-surveys.component.ts , list-surveys.component.html, list-surveys.component.html and edit them to configure the functionality. And restart the Angular development server. The output will be something like this

localhost:4200/survey-form

My Drive - Google...

Campus Survey Student Survey
List All Surveys

Student Survey Form

* First Name:

* Last Name:

* Street Address:

* City:

* State:

Zip

* Telephone:

* Email:

* Date of Survey:
mm/dd/yyyy

What did you like most about the campus?

localhost:4200/survey-list

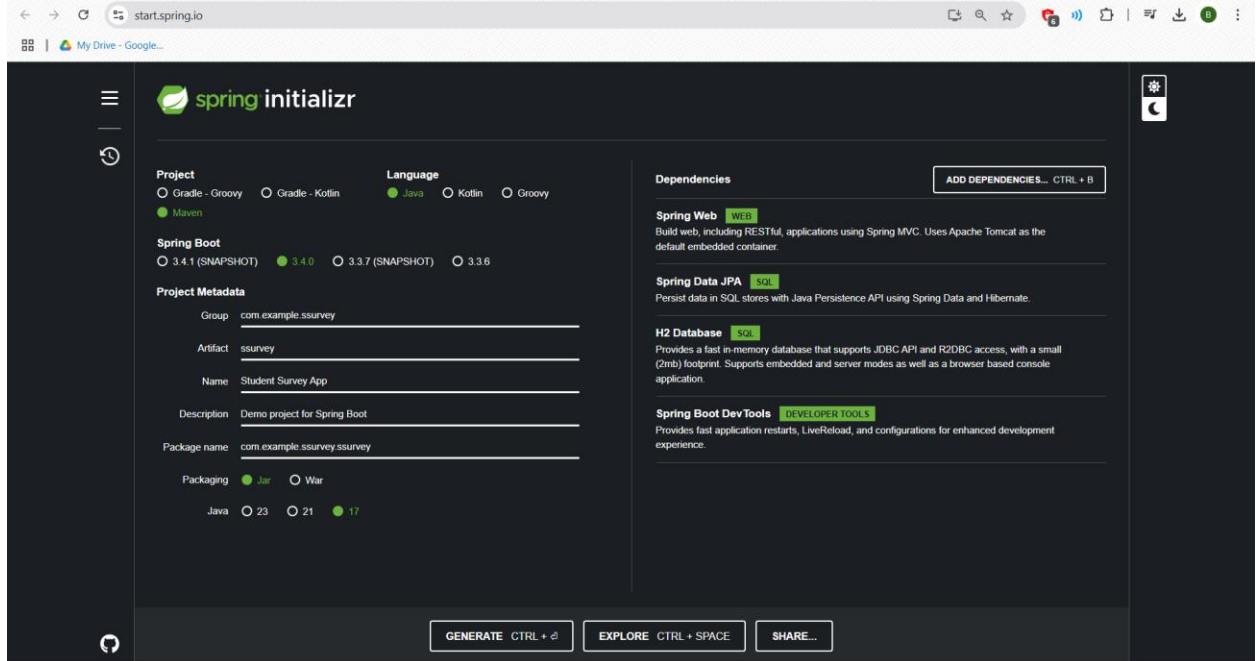
My Drive - Google...

Campus Survey Student Survey
List All Surveys

Survey List

#	First Name	Last Name	Street Address	City	State	Zip	Telephone	Email	Date of Survey	Liked Aspects	Interest Source	Likelihood to Recommend	Additional Comments	Actions
1	Vishal	Podishetty	10604 Kitty pozer dr	Fairfax	Virginia	22030	5716184779	vpodishe@gmu.edu	12/07/2024	Atmosphere	Television	Very Likely	ok/	<div>Edit</div> <div>Delete</div>

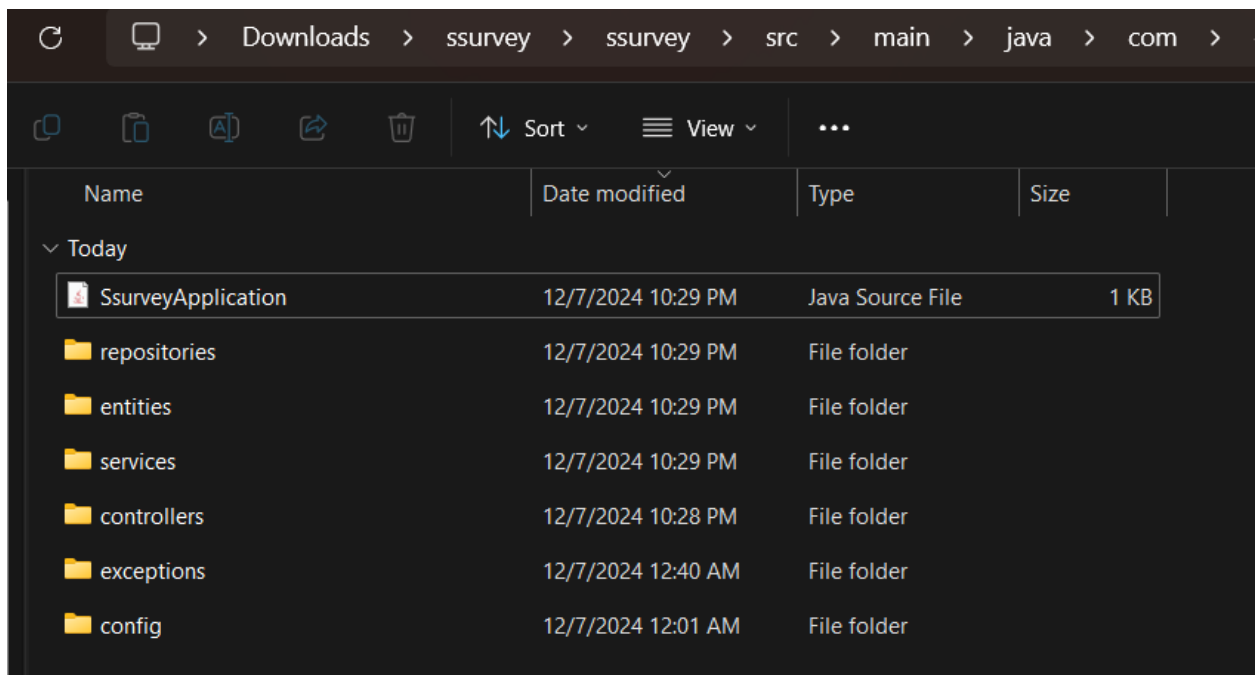
11. Now we have to connect our app to backend for that we are creating a creating a Spring Boot Project from Spring Initializr (<https://start.spring.io/>).and download the generated project.



12. Open the generated spring boot project in vscode

13. Create 6 new folders in

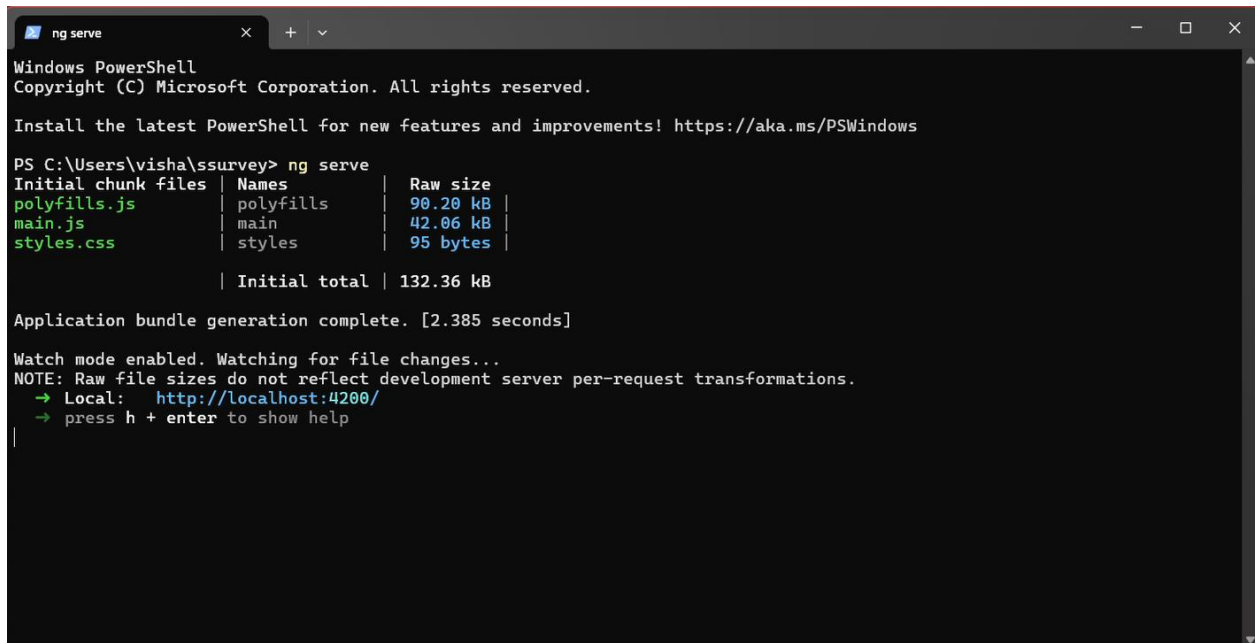
ssurvey\ssurvey\src\main\java\com\example\ssurvey\ssurvey as below



14. Now create a new java file according to the folder and edit them.

15. Now open the Angular Front end project again in VSCode and integrate it with backend by editing required files

16. After successfully integrating both paths open two terminals in each of the project files; the front end and the back end
17. First build the angular project by typing ng serve in the cmd prompt



```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

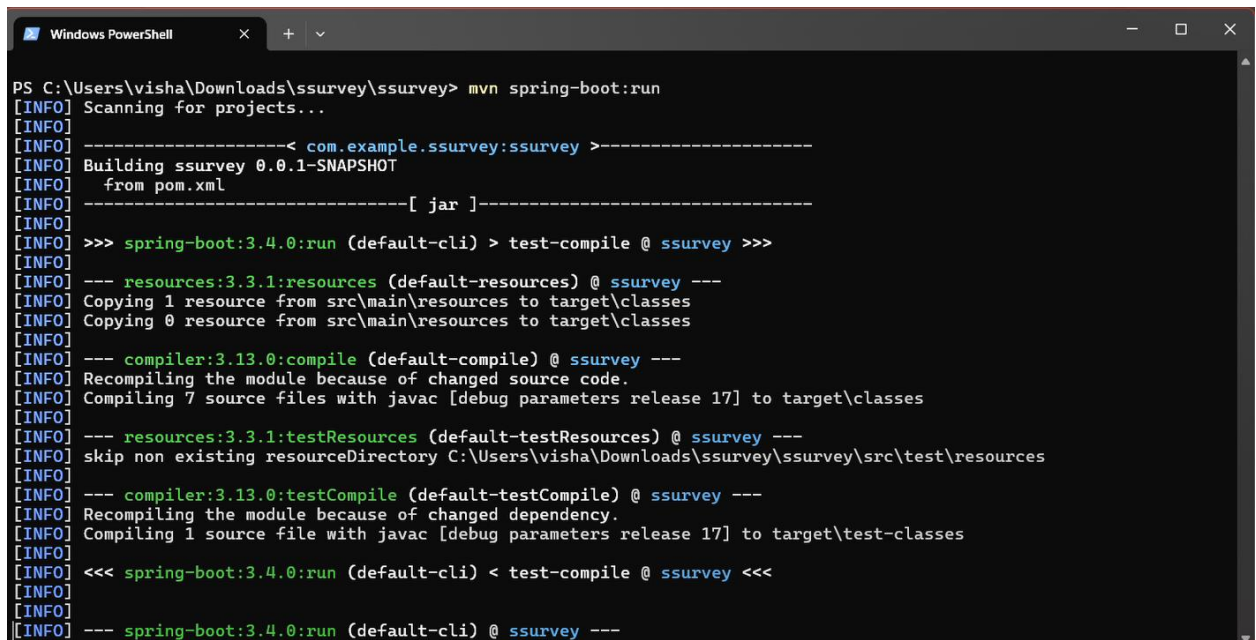
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\visha\ssurvey> ng serve
Initial chunk files | Names | Raw size
polyfills.js | polyfills | 90.20 kB
main.js | main | 42.06 kB
styles.css | styles | 95 bytes
| Initial total | 132.36 kB

Application bundle generation complete. [2.385 seconds]

Watch mode enabled. Watching for file changes...
NOTE: Raw file sizes do not reflect development server per-request transformations.
  → Local: http://localhost:4200/
  → press h + enter to show help
```

18. Then build the backend by typing mvn spring-boot:run in the terminal



```
Windows PowerShell

PS C:\Users\visha\Downloads\ssurvey\ssurvey> mvn spring-boot:run
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.example.ssurvey:ssurvey >-----
[INFO] Building ssurvey 0.0.1-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] >>> spring-boot:3.4.0:run (default-cli) > test-compile @ ssurvey >>>
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ ssurvey ---
[INFO] Copying 1 resource from src/main/resources to target/classes
[INFO] Copying 0 resource from src/main/resources to target/classes
[INFO]
[INFO] --- compiler:3.13.0:compile (default-compile) @ ssurvey ---
[INFO] Recompiling the module because of changed source code.
[INFO] Compiling 7 source files with javac [debug parameters release 17] to target/classes
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ ssurvey ---
[INFO] skip non existing resourceDirectory C:\Users\visha\Downloads\ssurvey\ssurvey\src\test\resources
[INFO]
[INFO] --- compiler:3.13.0:testCompile (default-testCompile) @ ssurvey ---
[INFO] Recompiling the module because of changed dependency.
[INFO] Compiling 1 source file with javac [debug parameters release 17] to target\test-classes
[INFO]
[INFO] <<< spring-boot:3.4.0:run (default-cli) < test-compile @ ssurvey <<<
[INFO]
[INFO] --- spring-boot:3.4.0:run (default-cli) @ ssurvey ---
```

19. Now we have successfully integrated and built both front end and back end; where the survey form can take data from the users and store it in the backend and we can also perform CRUD operations on filled out survey forms.

20. Thank you!