

## **Student Survey Application**

### **Team Members:**

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### **Description:**

We built this application with Angular, Node.js, Spring Boot, and the MySQL database, and we implemented CRUD operations. This application's Welcome-page includes two buttons which redirect to the respective pages: survey Form and list all surveys. where user can fill complete and submit the form. By clicking on the list all surveys button, we will be sent to a page where we can view a list of all surveys submitted by users, as well as update and delete buttons next to each record; once the user clicks on the update/delete button, he will be able to update or delete that specific record.

### **Technologies:**

- Angular
- Node.js
- Spring Boot

### **IDE:**

- Visual Studio Code
- MySQL server/ work bench

### **Execution Steps:**

1. Installed Node.js and Angular CLI.
2. Installed IDE (Visual Studio Code) and downloaded extension for spring boot.
3. In the command prompt, used "ng new project-name" to create a new angular project, followed by "ng generate component component-name" for creating components

4. In vscode, opened the angular project generated in the previous step to design the frontend.
5. Designed the backend code spring web, spring data jpa and MySQL jdbc driver dependencies
6. After starting spring boot application you can access this using this url <http://localhost:8080>.
7. started the Angular Application using command “ng serve” and navigate to the link to view the application <http://localhost:4200>.

## Screenshots:

## Starting Angular Application:

```
Microsoft Windows [Version 10.0.22621.2715]
(c) Microsoft Corporation. All rights reserved.

C:\Users\manas\Downloads\assignment3\surveyApp>ng serve
\ Building...▲ [angular] NG8107: The left side of this optional chain operation does not include 'null' or 'undefined' i
n its type, therefore the '?.' operator can be replaced with the '.' operator. [plugin angular-compiler]

    src/app/survey-form/survey-form.component.html:183:53:
    183 | ...ton type="submit" [disabled]="!surveyForm?.valid">Submit</button>
        |                                           ~~~~~
        The left side of this optional chain operation does not include 'null' or 'undefined' in its type, therefore the '?.' operator can be replaced with the '.' operator.

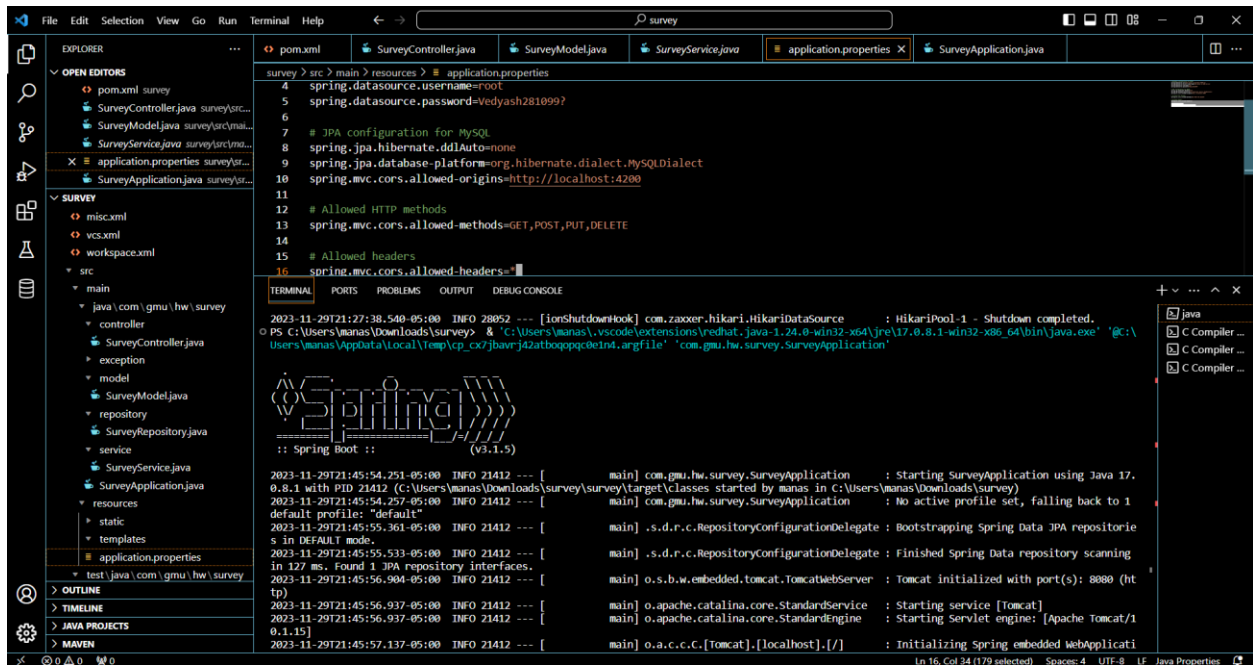
Error occurs in the template of component SurveyFormComponent.

    src/app/survey-form/survey-form.component.ts:17:15:
    17 |     templateUrl: './survey-form.component.html',
        |               ~~~~~
        The left side of this optional chain operation does not include 'null' or 'undefined' in its type, therefore the '?.' operator can be replaced with the '.' operator.

Initial Chunk Files | Names          | Raw Size
polyfills.js        | polyfills      | 82.71 kB
main.js             | main           | 59.03 kB
styles.css          | styles         | 95 bytes
                    | Initial Total  | 141.83 kB

Application bundle generation complete. [14.881 seconds]
Watch mode enabled. Watching for file changes...
- Local: http://localhost:4200/
```

## Running of Backend:



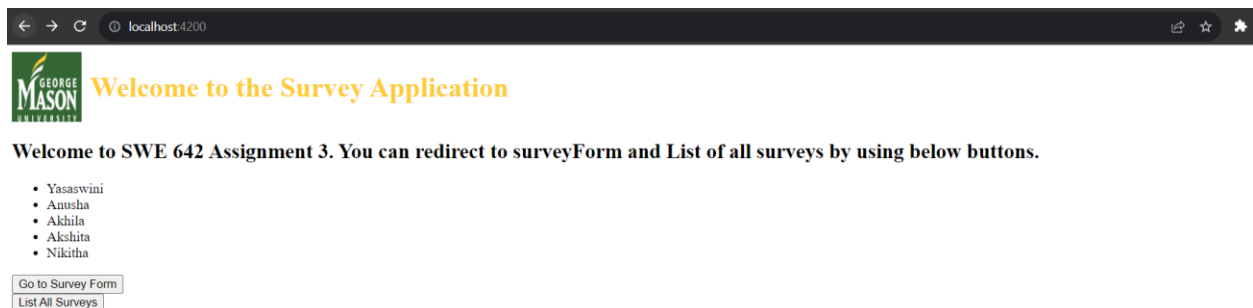
```
survey > src > main > resources > application.properties
4 spring.datasource.username=root
5 spring.datasource.password=Vedyash281099?
6
7 # JPA configuration for MySQL
8 spring.jpa.hibernate.ddlAuto=none
9 spring.jpa.database-platform=org.hibernate.dialect.MySQLDialect
10 spring.mvc.cors.allowed-origins=http://localhost:4200
11
12 # Allowed HTTP methods
13 spring.mvc.cors.allowed-methods=GET,POST,PUT,DELETE
14
15 # Allowed headers
16 spring.mvc.cors.allowed-headers=
```

```
2023-11-29T21:27:38.540-05:00 INFO 28052 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown completed.
PS C:\Users\manas\Downloads\survey> & "C:\Users\manas\vscode\extensions\redhat.java-1.24.0-win32-x64\jre\17.0.8.1-win32-x86_64\bin\java.exe" "@C:\Users\manas\AppData\Local\Temp\cp_cx7jbav7j42atboqqpde1nd.argfile" "com.gmu.hw.survey.SurveyApplication"

:: Spring Boot ::
(v3.1.5)

2023-11-29T21:45:54.251-05:00 INFO 21412 --- [ main] com.gmu.hw.survey.SurveyApplication : Starting SurveyApplication using Java 17.
0.8.1 with PID 21412 (C:\Users\manas\Downloads\survey\survey\target\classes started by manas in C:\Users\manas\Downloads\survey)
2023-11-29T21:45:54.257-05:00 INFO 21412 --- [ main] com.gmu.hw.survey.SurveyApplication : No active profile set, falling back to 1
default profile: "default"
2023-11-29T21:45:55.361-05:00 INFO 21412 --- [ main] .s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data JPA repository
s in DEFAULT mode.
2023-11-29T21:45:55.533-05:00 INFO 21412 --- [ main] .s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository scanning
in 127 ms. Found 1 JPA repository interfaces.
2023-11-29T21:45:56.904-05:00 INFO 21412 --- [ main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port(s): 8080 (ht
tp)
2023-11-29T21:45:56.937-05:00 INFO 21412 --- [ main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2023-11-29T21:45:56.937-05:00 INFO 21412 --- [ main] o.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/1
0.1.15]
2023-11-29T21:45:57.137-05:00 INFO 21412 --- [ main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicati
```

## Welcome-Page:



## Survey Form Page:

← → ↻ 🌐 localhost:4200/survey-form

Student Survey

First Name yasawini

Last Name vedula

streetAddress 4313 Ramona Dr

City Fairfax

State VA

ZIP 22030

Telephone: 4709308117

E-mail: vipinreddy03@gmail.com

Date of Survey 11/16/2023 📅

What did you like most about the campus?

☒ Sports

☒ Location

☐ Campus

☐ Atmosphere

☐ Dorm Rooms

How Became Interested \*

☒ Friends

☐ Television

☐ Internet

☐ Other

Likelihood of recommending this school: Very Likely ▼

Additional Comments: defrg

Submit Cancel

## Survey Form Page showing Thankyou Message:

### Student Survey

First Name

Last Name

streetAddress

City

State

ZIP

Telephone:

E-mail:

Date of Survey

What did you like most about the campus?

- ☐ Sports
- ☐ Location
- ☐ Campus
- ☐ Atmosphere
- ☐ Dorm Rooms

How Became Interested \*

☐ Friends

☐ Television

☐ Internet

☐ Other

Likelihood of recommending this school:

Additional Comments:

Thanks for your submission!

## SQL Workbench:

The screenshot displays the SQL Workbench interface. The left sidebar shows the 'SCHEMAS' pane with 'sys' selected. The main editor shows a SQL query: `select * from sys.surveys;`. Below the editor is a 'Result Grid' showing survey data with columns: id, first\_name, last\_name, street\_address, city, state, zip, telephone\_number, email, dos, and liked\_about\_campus. The data includes entries for yasaavini ved, yasaavini vedula, Jane Smith, Alex Johnson, Emily Williams, and John Doe. The bottom pane shows the 'Output' tab with an 'Action Output' table detailing the execution of the query, including the number of rows returned and the duration of the operation.

#	Time	Action	Message	Duration / Fetch
1	22:32:53	select * from sys.surveys LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
2	22:41:14	INSERT INTO sys.surveys first_name, last_name, street_address, city, state, zip, telephone_number, email, dos, liked_about_campus	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.000 sec
3	22:41:18	INSERT INTO sys.surveys first_name, last_name, street_address, city, state, zip, telephone_number, email, dos, liked_about_campus	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.016 sec
4	22:41:24	select * from sys.surveys LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
5	22:42:14	select * from sys.surveys LIMIT 0, 1000	9 row(s) returned	0.000 sec / 0.000 sec

# Survey List:

## Surveys List

ID	First Name	Last Name	Street Address	City	State	Zip	Telephone Number	Email	Date of Survey	Liked Most About Campus	How Became Interested	Likelihood of Recommending	Additional Comments		
1	yasaswini	ved	4313 Ramona Dr	Fairfax	VA	22031	4709308117	yashuvedula4@gmail.com	2023-11-22T05:00:00.000+00:00	location,campus	friends	Likely	Hi....	<button>Update</button>	<button>delete</button>
3	yasaswini	vedula	4313 Ramona Dr	Fairfax	VA	22030	4709308117	vipinreddy03@gmail.com	2023-11-15T05:00:00.000+00:00	sports,location	friends	Very Likely	defrg	<button>Update</button>	<button>delete</button>
5	Jane	Smith	456 Elm St	Otherville	NY	67890	555-987-6543	jane@example.com	2023-11-05T04:00:00.000+00:00	Great facilities and engaging professors	Friend referral	Likely	Could improve parking options.	<button>Update</button>	<button>delete</button>
6	Alex	Johnson	789 Oak St	Sometown	TX	54321	555-555-5555	alex@example.com	2023-11-10T05:00:00.000+00:00	Diverse student body and excellent extracurriculars	Social media	Highly likely	No complaints, fantastic experience!	<button>Update</button>	<button>delete</button>
7	Emily	Williams	101 Pine St	Cityville	FL	98765	555-222-3333	emily@example.com	2023-11-15T05:00:00.000+00:00	Supportive staff and great career services	Campus event	Very likely	Could use more study areas.	<button>Update</button>	<button>delete</button>
8	John	Doe	123 Main St	Anytown	CA	12345	555-123-4567	john@example.com	2023-11-01T04:00:00.000+00:00	Beautiful campus and friendly atmosphere	Website	Highly likely	Great experience overall!	<button>Update</button>	<button>delete</button>
9	Jane	Smith	456 Elm St	Otherville	NY	67890	555-987-6543	jane@example.com	2023-11-05T04:00:00.000+00:00	Great facilities and engaging professors	Friend referral	Likely	Could improve parking options.	<button>Update</button>	<button>delete</button>
10	Alex	Johnson	789 Oak St	Sometown	TX	54321	555-555-5555	alex@example.com	2023-11-10T05:00:00.000+00:00	Diverse student body and excellent extracurriculars	Social media	Highly likely	No complaints, fantastic experience!	<button>Update</button>	<button>delete</button>
11	Emily	Williams	101 Pine St	Cityville	FL	98765	555-222-3333	emily@example.com	2023-11-15T05:00:00.000+00:00	Supportive staff and great career services	Campus event	Very likely	Could use more study areas.	<button>Update</button>	<button>delete</button>

# After Deletion:

## Surveys List

ID	First Name	Last Name	Street Address	City	State	Zip	Telephone Number	Email	Date of Survey	Liked Most About Campus	How Became Interested	Likelihood of Recommending	Additional Comments		
5	Jane	Smith	456 Elm St	Otherville	NY	67890	555-987-6543	jane@example.com	2023-11-05T04:00:00.000+00:00	Great facilities and engaging professors	Friend referral	Likely	Could improve parking options.	<button>Update</button>	<button>delete</button>
6	Alex	Johnson	789 Oak St	Sometown	TX	54321	555-555-5555	alex@example.com	2023-11-10T05:00:00.000+00:00	Diverse student body and excellent extracurriculars	Social media	Highly likely	No complaints, fantastic experience!	<button>Update</button>	<button>delete</button>
7	Emily	Williams	101 Pine St	Cityville	FL	98765	555-222-3333	emily@example.com	2023-11-15T05:00:00.000+00:00	Supportive staff and great career services	Campus event	Very likely	Could use more study areas.	<button>Update</button>	<button>delete</button>
8	John	Doe	123 Main St	Anytown	CA	12345	555-123-4567	john@example.com	2023-11-01T04:00:00.000+00:00	Beautiful campus and friendly atmosphere	Website	Highly likely	Great experience overall!	<button>Update</button>	<button>delete</button>
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11	Emily	Williams	101 Pine St	Cityville	FL	98765	555-222-3333	emily@example.com	2023-11-15T05:00:00.000+00:00	Supportive staff and great career services	Campus event	Very likely	Could use more study areas.	<button>Update</button>	<button>delete</button>

# Updating form data fetching and changed some values for updating :

First Name

Emily

Last Name

Williams

streetAddress

101 Pine St

City

Cityville

State

FL

ZIP

98765

Telephone

555-222-33

E-mail

emily@example.com

Date of Survey

2023-11-15T05:00:00.000+00:00

What did you like most about the campus?

☐ Sports

☐ Location

☐ Campus

☐ Atmosphere

☐ Dorm Rooms

How Became Interested \*

☐ Friends

☐ Television

☐ Internet

☐ Other

Likelihood of recommending this school:

Co use more.

Additional Comments:

Update

# After Updating:

## Surveys List

ID	First Name	Last Name	Street Address	City	State	Zip	Telephone Number	Email	Date of Survey	Liked Most About Campus	How Became Interested	Likelihood of Recommending	Additional Comments	
5	Jane	Smith	456 Elm St	Otherville	NY	67890	555-987-6543	jane@example.com	2023-11-05T04:00:00.000+00:00	Great facilities and engaging professors	Friend referral	Likely	Could improve parking options.	<div>Update</div> <div>delete</div>
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