

## **DATABASE SETUP**

- Obtain the MySQL database from the official website and install it on the local machine. Establish a root user with CRUD permissions.
- Download and install MySQL Workbench for connecting to the MySQL database.
- Open MySQL Workbench, set the host as localhost, port as 3306, and input the root user credentials.
- Once connected, create a database and a "Surveys" table.
- SQL commands:
- Create a database:

**CREATE DATABASE testDatabase;**

- Use the database:

**USE testDatabase;**

- Create the Surveys table:

```
CREATE TABLE surveytable(id INT NOT NULL AUTO_INCREMENT, firstname
VARCHAR(255), lastname VARCHAR(255), streetaddress VARCHAR(255), city
VARCHAR(255), state VARCHAR(255), zipcode VARCHAR(10), telephone
VARCHAR(15), email VARCHAR(255), dateofsurvey VARCHAR(25), likedmost
VARCHAR(255), interestedby VARCHAR(255), likelihood VARCHAR(255), comments
VARCHAR(500), PRIMARY KEY(id));
```

- Utilize this database and table in the backend application with the root user credentials.

## **FRONT-END APPLICATION**

- Develop the front-end application using Angular.
- Install Angular CLI with the command: **npm install -g @angular/cli**.
- Create a new Angular project: **ng new swe642-assign3-fronend**.
- Generate necessary components:
- Main Component: **ng generate component main-page**
- Survey Component: **ng generate component survey-page**
- Survey List Component: **ng generate component list-of-surveys**
- Generate a service for making API calls: **ng generate service survey**.

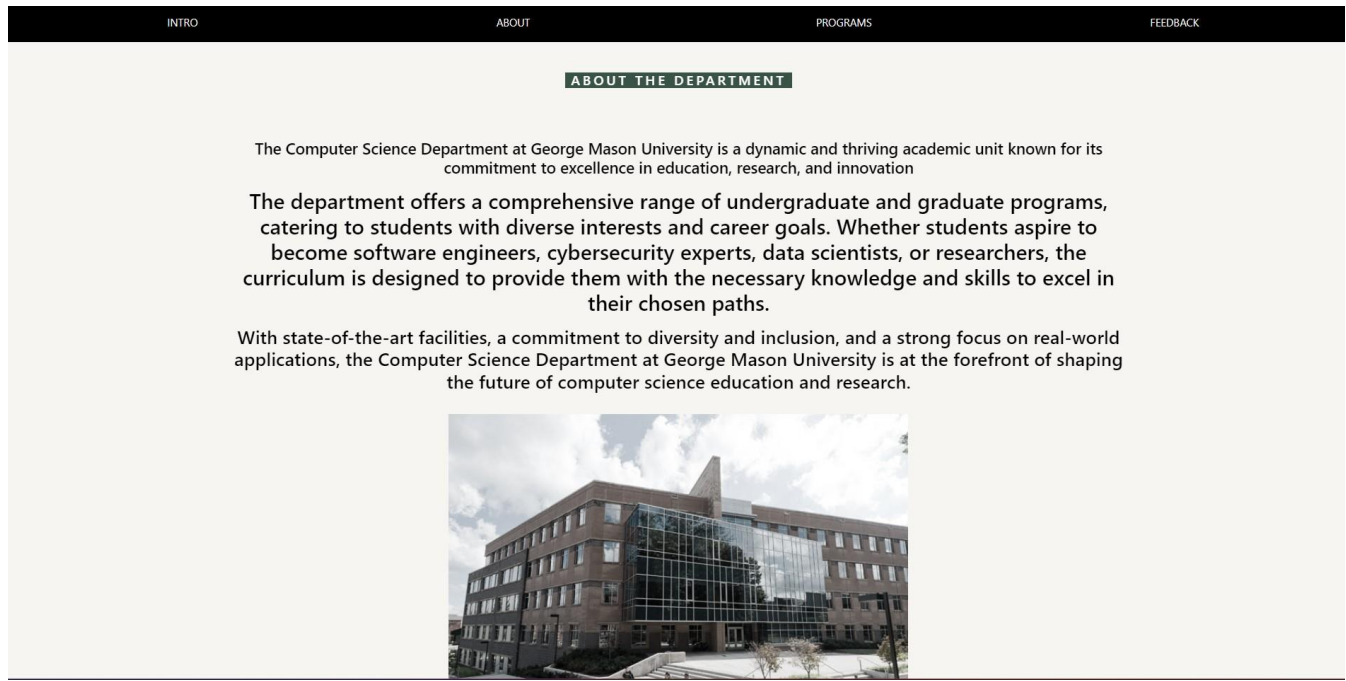
- Write HTML and CSS code in corresponding components, and define API call methods in the **apiservice.service.ts** file.
- Run the application with the command: **ng serve**.

## **BACKEND APPLICATION**

- Develop the backend application using Spring Boot.
- Add required dependencies and download the ZIP file from <https://start.spring.io/>.
- Open the application in Eclipse IDE and write the APIs.
- Create a repository and model class for database connection, defining the table schema for the survey form.
- Create a controller and implement APIs for creating, updating, deleting, and listing records.
- Run the application in Eclipse IDE. Store database credentials in the **application.properties** file, including the port number.

## **Screenshots**

### **Application home screen**



Starting the angular server

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

Initial Chunk Files	Names	Raw Size
vendor.js	vendor	2.64 MB
polyfills.js	polyfills	333.19 kB
styles.css, styles.js	styles	230.48 kB
main.js	main	79.45 kB
runtime.js	runtime	6.54 kB
Initial Total		3.27 MB

Build at: 2023-11-30T18:29:29.977Z - Hash: 0a8dd90791070e5a - Time: 6033ms

\*\* Angular Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200/ \*\*

✓ Compiled successfully.

Starting the SpringBoot application

Markers

Properties

Servers

Data Source Explorer

Snippets

Terminal

Console


Git Staging

History

Debug

JUnit

Coverage



Spring Boot (v3.2.0)

```
2023-11-30T13:32:00.908-05:00 INFO 4604 --- [main] c.e.s.Swe642Assign3BackendApplication : Starting Swe642Assign3BackendApplication using Java 17.0.7 with PID 4604 (C:\U
2023-11-30T13:32:00.916-05:00 INFO 4604 --- [main] c.e.s.Swe642Assign3BackendApplication : No active profile set, falling back to 1 default profile: "default"
2023-11-30T13:32:02.339-05:00 INFO 4604 --- [main] s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data JPA repositories in DEFAULT mode.
2023-11-30T13:32:02.457-05:00 INFO 4604 --- [main] s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository scanning in 99 ms. Found 1 JPA repository inte
2023-11-30T13:32:03.810-05:00 INFO 4604 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port 8081 (http)
2023-11-30T13:32:03.824-05:00 INFO 4604 --- [main] o.apache.catalina.core.StandardEngine : Starting service [Tomcat]
2023-11-30T13:32:03.824-05:00 INFO 4604 --- [main] o.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/10.1.16]
2023-11-30T13:32:03.965-05:00 INFO 4604 --- [main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
2023-11-30T13:32:03.968-05:00 INFO 4604 --- [main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 2955 ms
2023-11-30T13:32:04.341-05:00 INFO 4604 --- [main] o.hibernate.jpa.internal.util.LogHelper : HHH0000204: Processing PersistenceUnitInfo [name: default]
2023-11-30T13:32:04.589-05:00 INFO 4604 --- [main] org.hibernate.Version : HHH0000412: Hibernate ORM core version 6.3.1.Final
2023-11-30T13:32:04.700-05:00 INFO 4604 --- [main] o.h.c.internal.RegionFactoryInitiator : HHH0000026: Second-level cache disabled
2023-11-30T13:32:05.245-05:00 INFO 4604 --- [main] o.s.o.j.p.SpringPersistenceUnitInfo : No LoadTimeWeaver setup: ignoring JPA class transformer
2023-11-30T13:32:05.312-05:00 INFO 4604 --- [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Starting...
2023-11-30T13:32:05.600-05:00 INFO 4604 --- [main] com.zaxxer.hikari.pool.HikariPool : HikariPool-1 - Added connection com.mysql.cj.jdbc.ConnectionImpl@7babe9e
2023-11-30T13:32:05.604-05:00 INFO 4604 --- [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Start completed.
2023-11-30T13:32:07.187-05:00 INFO 4604 --- [main] o.h.e.t.j.p.i.JpaPlatformInitiator : HHH000489: No JPA platform available (set 'hibernate.transaction.jta.platform'
2023-11-30T13:32:07.241-05:00 INFO 4604 --- [main] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'default'
2023-11-30T13:32:07.776-05:00 WARN 4604 --- [main] JpaBaseConfiguration$JpaWebConfiguration : spring.jpa.open-in-view is enabled by default. Therefore, database queries may
2023-11-30T13:32:08.286-05:00 WARN 4604 --- [main] ionDefaultTemplateResolverConfiguration : Cannot find template location: classpath:/templates/ (please add some template
2023-11-30T13:32:08.503-05:00 INFO 4604 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8081 (http) with context path ''
2023-11-30T13:32:08.517-05:00 INFO 4604 --- [main] c.e.s.Swe642Assign3BackendApplication : Started Swe642Assign3BackendApplication in 8.423 seconds (process running for
```

Survey Page

First Name\*

Enter your firstname

Last Name\*

Enter your lastname

Street Address\*

Enter your street address

City\*

Enter your city

State\*

Enter your state

\*Zipcode:

22030

Telephone Number\*

0000000000

Email\*

Enter your email

Date of Survey\*

dd-mm-yyyy

What did you like most about the campus?

Students

Location

Friends

Television

Internet

Other

localhost:4200 says

Survey data record created successfully.

OK

Likelihood of Recommending this School

Additional Comments

```
localhost:4200 says
Survey data record created successfully.
```

Likelihood of Recommending this School

Additional Comments

```
40
41 • select * from surveyTable;
```