

**HW - 3**  
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## **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**

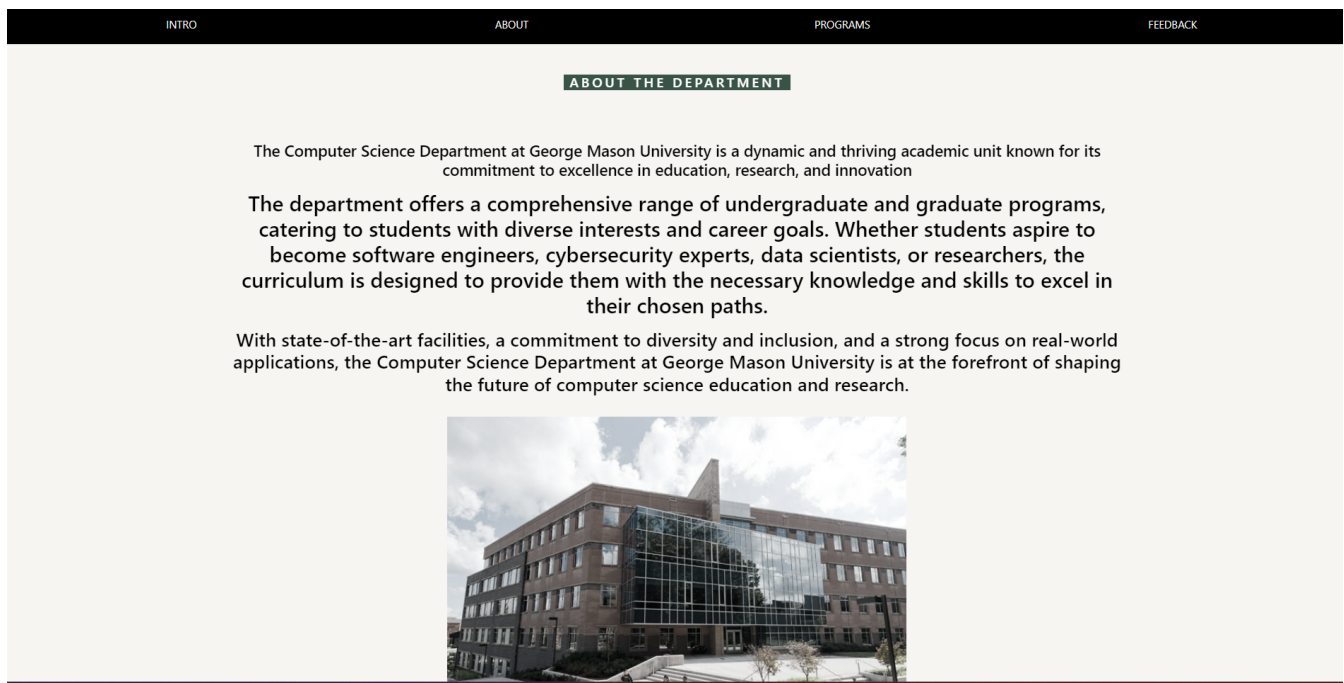
- Generate a service for making API calls: **ng generate service survey**.
- Write HTML and CSS code in corresponding components, and define API call methods in the **api-service.service.ts** file.
- Run the application with the command: **ng serve**.

## 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 X Git Staging History Debug XJUnit Coverage
Swe642Assign3BackendApplication [Java Application] [pid: 4604]

:: Spring Boot ::
(v3.2.0)

2023-11-30T13:31:00.908-05:00 INFO 4604 --- [main] c.e.s.Swe642Assign3BackendApplication : Starting Swe642Assign3BackendApplication using Java 17.0.7 with PID 4604 (C:\U
2023-11-30T13:31:02.000.916-05:00 INFO 4604 --- [main] c.e.s.Swe642Assign3BackendApplication : No active profile set, falling back to 1 default profile: "default"
2023-11-30T13:31:02.339-05:00 INFO 4604 --- [main] s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data JPA repositories in DEFAULT mode.
2023-11-30T13:31:02.457-05:00 INFO 4604 --- [main] s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository scanning in 99 ms. Found 1 JPA repository inte
2023-11-30T13:31:02.810-05:00 INFO 4604 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port 8081 (http)
2023-11-30T13:31:02.824-05:00 INFO 4604 --- [main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2023-11-30T13:31:02.824-05:00 INFO 4604 --- [main] o.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/10.1.16]
2023-11-30T13:31:02.965-05:00 INFO 4604 --- [main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
2023-11-30T13:31:02.968-05:00 INFO 4604 --- [main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 2955 ms
2023-11-30T13:31:02.944-05:00 INFO 4604 --- [main] o.hibernate.jpa.internal.util.LogHelper : HHH000204: Processing PersistenceUnitInfo [name: default]
2023-11-30T13:31:02.944-05:00 INFO 4604 --- [main] org.hibernate.Version : HHH000412: Hibernate ORM core version 6.3.1.Final
2023-11-30T13:31:02.944-05:00 INFO 4604 --- [main] o.h.c.internal.RegionFactoryInitiator : HHH000026: Second-level cache disabled
2023-11-30T13:31:02.944-05:00 INFO 4604 --- [main] o.s.o.j.p.SpringPersistenceUnitInfo : No LoadTimeWeaver setup; ignoring JPA class transformer
2023-11-30T13:31:02.944-05:00 INFO 4604 --- [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Starting...
2023-11-30T13:31:02.944-05:00 INFO 4604 --- [main] com.zaxxer.hikari.pool.HikariPool : HikariPool-1 - Added connection com.mysql.cj.jdbc.ConnectionImpl@7b4bed9e
2023-11-30T13:31:02.944-05:00 INFO 4604 --- [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Start completed.
2023-11-30T13:31:02.944-05:00 INFO 4604 --- [main] o.h.e.t.j.p.i.JtaPlatformInitiator : HHH000489: No JTA platform available (set 'hibernate.transaction.jta.platform'
2023-11-30T13:31:02.944-05:00 INFO 4604 --- [main] j.LocalContainerEntityManagerFactoryBean : Initializing JPA EntityManagerFactory for persistence unit 'default'
2023-11-30T13:31:02.944-05:00 WARN 4604 --- [main] JpaBaseConfigurationJpaWebConfiguration : spring.jpa.open-in-view is enabled by default. Therefore, database queries may
2023-11-30T13:31:02.944-05:00 WARN 4604 --- [main] ionDefaultTemplateResolverConfiguration : Cannot find template location: classpath:/templates/ (please add some template
2023-11-30T13:31:02.944-05:00 INFO 4604 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8081 (http) with context path ''
2023-11-30T13:31:02.944-05:00 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

[illegible]