

Functional Specification Document (FSD) for Capstone Project

1. Project Overview

The **Capstone Project** is a web application that provides safety and wellness services. It allows users to access information about nearby hospitals, police stations, mental wellness articles, helplines, and conduct surveys. The application aims to enhance user safety and well-being through timely information and support.

2. Functional Requirements

Safety Services

- **Weather Information**
 - Users can fetch weather details based on a specified location.
 - **API Integration:** Connect to the OpenWeather API to retrieve weather data.
- **Nearby Services**
 - Users can search for nearby hospitals and police stations using latitude and longitude.
 - **API Integration:** Use OpenStreetMap to retrieve locations.

Wellness Services

- **Article Retrieval**
 - Users can access articles related to mental wellness.
 - **Filter by Category:** Articles can be filtered by categories such as anxiety, depression, etc.
- **Helpline Information**
 - Users can view helpline numbers for various mental health services.
- **Survey Submission**
 - Users can complete surveys related to their mental wellness.
 - **Results Display:** Users receive results based on their responses.

Nearby Services API

- **GET /api/safety/services**
 - Retrieves nearby hospitals and police stations based on user-provided location (latitude and longitude).

Wellness Services APIs

- **GET /api/wellness/articles**

- Retrieves a list of mental wellness articles, with optional filtering by category.
- **GET /api/wellness/helplines**
 - Provides helpline information for mental health services.

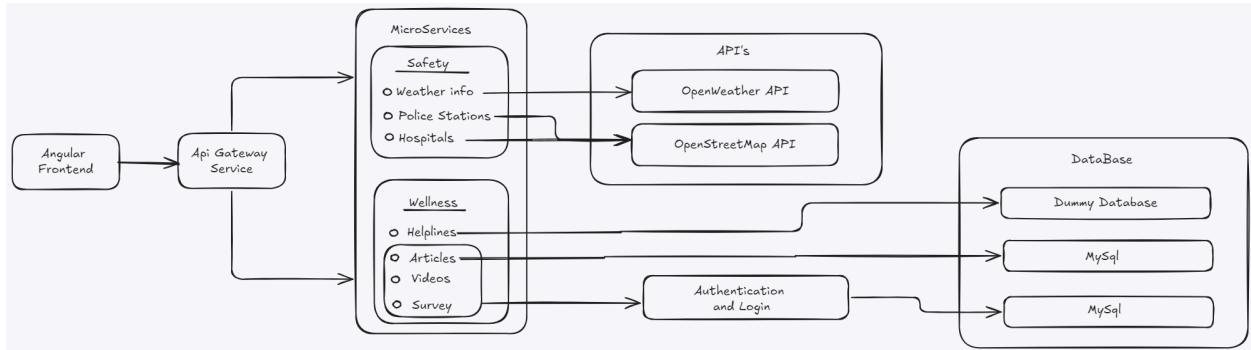
Survey APIs

- **POST /api/survey/submit**
 - Submits user survey responses and retrieves results based on evaluation.

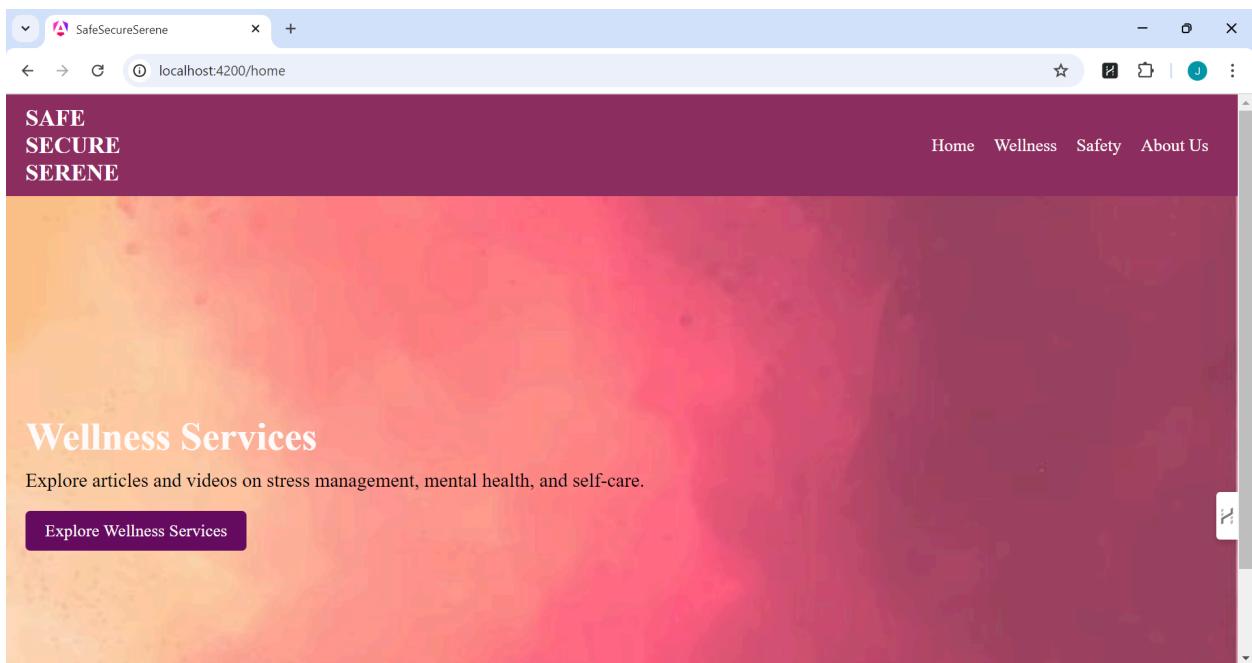
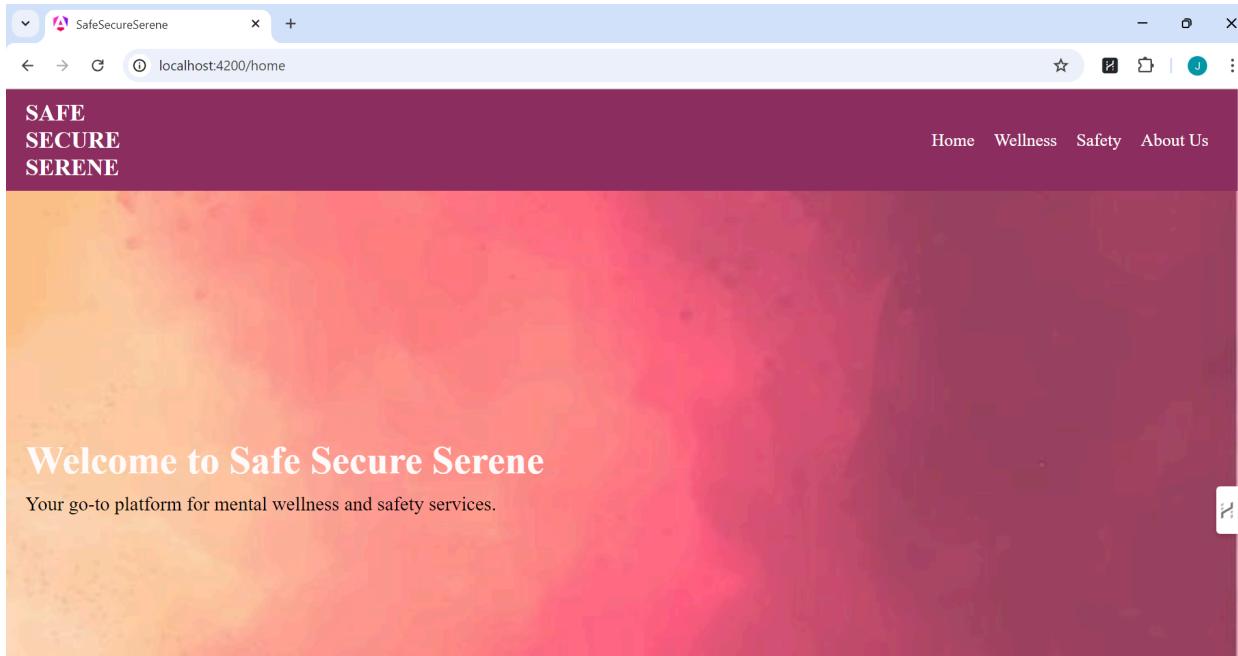
3. User Interface Design

- **Dashboard**
 - Display current weather, nearby hospitals, and police stations on a map.
 - Sections for articles and helpline information.
- **Survey Page**
 - Form layout for users to answer survey questions.

3. Wireframes



The home page:



SafeSecureSerene

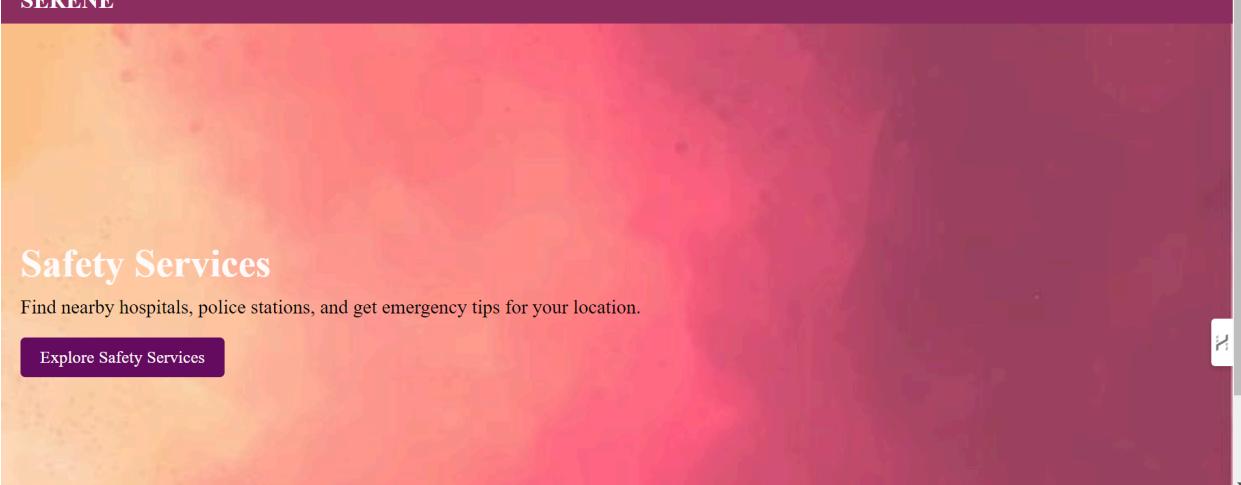
localhost:4200/home

SAFE SECURE SERENE

Safety Services

Find nearby hospitals, police stations, and get emergency tips for your location.

Explore Safety Services



Wellness Services:

SafeSecureSerene

localhost:4200/wellness

SAFE SECURE SERENE

Articles

Explore various articles about wellness and mental health.

Go to Articles



MENTAL HEALTH AWARENESS

The screenshot shows a web browser window titled "SafeSecureSerene" at the URL "localhost:4200/wellness". The page has a red-to-orange gradient background. On the left, there's a large orange vertical bar. In the center, there are two main sections: "Helplines" and "Surveys".

Helplines: This section features an illustration of a person sitting in a chair with a large, shadowy figure behind them, and the text "I need HELP". Below it is a purple button labeled "Go to Helplines".

Surveys: This section features an illustration of a person holding a clipboard with a thought bubble above it containing a checklist. Below it is a purple button labeled "Take Survey".

Articles:

The screenshot shows a web browser window titled "SafeSecureSerene" at the URL "localhost:4200/articles". The page has a red-to-orange gradient background. At the top, there's a dark purple header with the text "SAFE SECURE SERENE" on the left and "Home" "Wellness" "Safety" "About Us" on the right.

Below the header, there are four cards arranged in a grid, each with a purple "Read More" button at the bottom.

- Coping with Stress**
Category: stress
Stress can be managed effectively through various techniques. These include deep breathing ex...
[Read More](#)
- Understanding Depression**
Category: depression
Depression affects millions of people worldwide and can have a profound impact on daily life.
[Read More](#)
- Managing Anxiety**
Category: anxiety
Anxiety can be debilitating, but there are ways to cope. Techniques such as cognitive-behavioral therapy...
[Read More](#)
- The Effects of Chronic Stress**
Category: stress
Chronic stress can lead to severe health issues, including heart disease, obesity, and diabetes....
[Read More](#)

Categorically displaying articles:

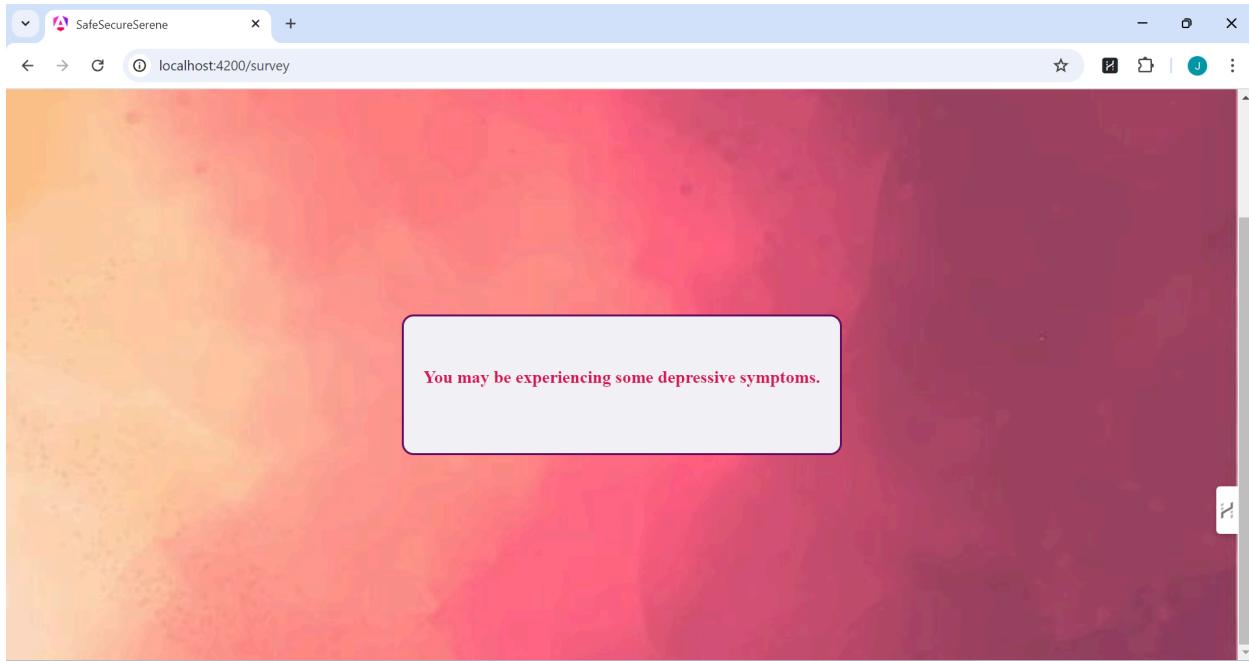
The screenshot shows a web browser window for the 'SafeSecureSerene' website. The URL is 'localhost:4200/articles'. The page has a dark purple header with the text 'SAFE SECURE SERENE' on the left and 'Home' and 'Wellness' (underlined) on the right. Below the header is a large, blurred background image of a landscape. At the top center, there are four buttons: 'All', 'Stress', 'Depression', and 'Anxiety'. Below these, three article cards are displayed in a grid. Each card has a title, a category label ('Category: stress'), a brief description, and a 'Read More' button.

Article Title	Category	Description	Action
Coping with Stress	stress	Stress can be managed effectively through various techniques. These include deep breathing ex...	Read More
The Effects of Chronic Stress	stress	Chronic stress can lead to severe health issues, including heart disease, obesity, and diabet...	Read More
Healthy Coping Mechanisms for Stress	stress	Identifying healthy coping mechanisms is essential in managing stress. Activities such as yog...	Read More

Survey:

The screenshot shows a web browser window for the 'SafeSecureSerene' website. The URL is 'localhost:4200/survey'. The page has a dark purple header with the text 'SAFE SECURE SERENE' on the left and 'Home' and 'Wellness' (underlined) on the right. Below the header is a large, blurred background image of a landscape. In the center, there is a white rectangular survey form titled 'Depression Awareness Survey'. It asks 'How often do you find it difficult to relax during stressful situations?' and provides five options: 'Never', 'Rarely', 'Sometimes', 'Often', and 'Always'. At the bottom of the form are two buttons: 'Previous' and 'Next'.

Response for survey:



Safety Services

A screenshot of a web browser window titled "SafeSecureSerene". The URL in the address bar is "localhost:4200/safety". The page features a map of Thiruvananthapuram, India, with various roads and landmarks labeled. A callout box on the map identifies the "Family Health Centre Thiruvallom" as a hospital. To the right of the map, there is a sidebar with a pink header. Below the header, the text "Weather for Trivandrum" is displayed, followed by current weather conditions: Temperature: 29.95°C, Weather: light rain, Humidity: 74%, and Wind Speed: 5.66 m/s. The map is powered by Leaflet and OpenStreetMap.

About-us

The screenshot shows a web browser window with the URL localhost:4200/about-us. The page has a light orange background. At the top center, it says "SAFE-SECURE-SERENE". To the right is a colorful illustration of three butterflies on a leaf with the text "ALL YOU NEED IS TO believe in yourself". On the left, under the heading "Our Vision", is the text: "To foster a world where individuals feel safe, secure, and supported in their mental wellness journey."

The screenshot shows the same web browser window with the URL localhost:4200/about-us. On the left is a large image of two hands holding each other. To the right, under the heading "Our Mission", is a bulleted list of services: "Provide reliable safety services to help individuals find nearby hospitals, police stations, and emergency tips.", "Offer mental wellness resources to help manage stress, anxiety, and promote self-care practices.", and "Create a community of support and guidance in mental wellness and safety." Below this is a dark purple "Contact Us" section with the text: "If you have any questions or need assistance, please don't hesitate to reach out to us." followed by "Email: safesecureserene.com", "Phone: +1 123 456 7890", and "Address: 123 Wellness Street, Safe City, SC 12345".

4. Technical Specifications

- Backend Framework: Spring Boot
- Database: MySQL

- Frontend Framework: Angular 18
- APIs Used:
 - OpenWeather API for weather data.
 - OpenStreetMap API for location services.

5. Dependencies

- Spring Boot Starter Web: For building web applications.
- Spring Boot Starter Security: For securing the application.
- Spring Data JPA: For database interactions.
- Lombok: For reducing boilerplate code.
- MySQL Connector: For MySQL database access.

6. Conclusion

This Functional Specification Document outlines the requirements and specifications for the Capstone Project. It serves as a guide for the development team and stakeholders to ensure that the application meets its intended purpose and provides a robust user experience.