

EXP.NO : 1

09/08/2024

Identify a Software System - SecureShe : Women's Protection App

TITLE

From Shadows to Spotlight: Transforming Workplace Culture to End Harassment

PROBLEM STATEMENT

In today's world, women face increasing risks of harassment and violence in various environments. Many existing solutions do not provide real-time assistance or immediate response mechanisms to ensure safety. There is a need for a platform that integrates emergency SOS features with location tracking, provides resources for safety, and supports users in critical situations.

OBJECTIVES

1. Develop an Emergency SOS Button: Implement a feature that allows users to quickly send distress signals with their real-time location to predefined emergency contacts.
2. Location Tracking: Provide accurate location tracking to assist responders in reaching users promptly.
3. Resource Provision: Offer educational resources and support services to raise awareness and provide guidance on avoiding harassment.
4. Safe Zones Mapping: Create a map of safe zones including police stations and hospitals for users to identify secure locations.
5. User Privacy and Security: Ensure secure handling of user data and maintain privacy through robust authentication and encryption.

INTRODUCTION

The Women's Safety and Emergency SOS Platform aims to empower women by providing a reliable tool to enhance their safety in potentially dangerous situations. This project focuses on integrating real-time location tracking with an easy-to-use SOS button to alert emergency contacts. The platform also includes educational resources and maps of safe zones to further support women's safety. The solution addresses critical gaps in existing safety tools by providing immediate assistance and reliable information.

MODULES

1. User Authentication Module

- ❖ Features: User registration, login, and secure authentication.
- ❖ Technologies: JWT for token-based authentication, SSL/TLS for secure data transmission.

2. Emergency SOS Module

- ❖ Features: A one-click emergency button that sends an alert to pre-saved contacts with the user's location.
- ❖ Implementation: Use Twilio for SMS alerts and Google Maps API for location tracking.

3. Real-time Location Sharing

- ❖ Features: Enable users to share their real-time location with trusted contacts.
- ❖ Implementation: Integrate with Google Maps API for real-time tracking and sharing.

3. Safe Zones Module

- ❖ Features: Display a map highlighting safe zones such as police stations, hospitals, and safe houses.
- ❖ Implementation: Use Google Maps API to mark and display safe zones.

4. Educational Resources Module

- ❖ Features: Articles, videos, and tutorials on harassment prevention and response.
- ❖ Technologies: CMS for content management and display.

5. Personalized Safety Tips

- ❖ Features: Provide customized safety tips based on the user's location and reported incidents.
- ❖ Implementation: Use data analytics to generate and display personalized safety advice.

6. Mobile App Integration

- ❖ Features: Extend the functionality of the website to a mobile app for better accessibility.
- ❖ Implementation: Develop mobile apps for iOS and Android using frameworks like React Native or Flutter.

7. Support Services Module

- ❖ Features: Directory of support services, hotlines, and counselling resources.
- ❖ Technologies: Database for storing and managing support resources.

8. User Profile Management Module

- ❖ Features: Profile updates, contact management, and consent settings.
- ❖ Technologies: Secure database storage, frontend forms.

FUNCTIONAL REQUIREMENTS

1. SOS Button: Users must be able to press a button to send an SOS alert with their location.
2. Location Sharing: The system must fetch and transmit the user's current location accurately.
3. Alert Notification: Emergency contacts must receive real-time alerts via SMS or push notifications.
4. Resource Access: Users must have access to educational resources and support services.
5. Safe Zones Map: Users must view a map showing safe zones and emergency facilities.

NON-FUNCTIONAL REQUIREMENTS

1. Performance: The system should process SOS requests and location data with minimal delay.
2. Scalability: The platform must handle increasing numbers of users and requests without degradation in performance.
3. Reliability: The system should be highly available and provide accurate alerts and location tracking.
4. Security: User data, including location and personal information, must be protected with encryption and secure access controls.
5. Usability: The platform should have an intuitive and user-friendly interface, ensuring ease of use for all users.

CONCLUSION

The Women's Safety and Emergency SOS Platform provides a comprehensive solution to enhance women's safety by integrating real-time emergency response features with location tracking and educational resources. By addressing key challenges in existing safety tools, this platform ensures timely assistance, secure communication, and valuable support for users in critical situations.

Description	Marks Allotted	Marks Obtained
Preparation	20	
Design / Implementation	20	
Viva	15	
Output	10	
Record	10	
Total	75	

RESULT

Thus “ *SecureShe : Women’s Protection App* “ is the software system that needs to be developed has been identified successfully.