SAVEETHA SCHOOL OF ENGINEERING
SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES
CHENNAI-602105

WOMEN SAFETY ANALYSIS PROTECTING WOMEN FROM SAFETY THREATS

A CAPSTONE PROJECT REPORT

Submitted in the partial fulfillment for the completion of the course

CSA4309 - INTERNET PROGRAMMING FOR WEB SERVICES

IN

COMPUTER SCIENCE AND ENGINEERING

Submitted by

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DECLARATION

We, **MONISH KUMAR T K, NITHIN KUMAR S, SHRI PRABHU T**, students of **Bachelor of Engineering in the Department of Computer Scienceand Engineering,** Saveetha Institute of Medical and Technical Sciences, Saveetha School of Engineering, Chennai, hereby declare that the work presented in this Capstone Project Work entitled "**Women Safety Analysis Protecting Women from Safety Threats"**is the outcome of our own bonafide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics.

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Nithin Kumar S (192211234)

Shri Prabhu T (192210673)

Date:

Place:

CERTIFICATE

This is to certify that the project entitled **"Women Safety Analysis Protecting Women from Safety Threats"** submitted by **Monish Kumar T K,Nithin Kumar S, Shri Prabhu T**has been carried out under my supervision. The project has been submitted as per the requirements in the current semester of B.E. Computer Science and Engineering.

Supervisor

Dr. K. Jayasakthi Velmurugan

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ABSTRACT

Women safety is a critical concern in today's society, where technological solutions can play a significant role inmitigatingsafetythreats.ThisJava-basedproject aimsto provideanautomated system for monitoring, analyzing, and preventing potential safety risks faced by women. By integrating various data sources such as geographical locations, time-based patterns, and emergency contacts, the system identifies areas or situations that may pose a threat.

The project includes real-time tracking, alert mechanisms, and a database for incident reporting, allowing users to send distress signals to authorities or pre-defined contacts in emergencies. Machine learning algorithms are employed to analyze patterns and predict unsafe environments, providing women with timely alerts and recommendations. This system is designed to ensure privacy, reliability, and fast communication, making it a valuable tool for enhancing women's safety in both public and private spaces.

Key features of the project include user-friendly interfaces, location-based services, real-time safety alerts, and community-driven data reporting to empower women and improve response times in critical situations.

Every function, including data storage, incident reporting, and alert creation, is implemented in a modular fashion to guarantee usability and functionality. For testing and data training, additional features include the capacity to retain basic user data, including student details (e.g., name, roll number, and courses).

With future ambitions to include AI for predictive analysis, mobile app compatibility, and law enforcement integration for a more holistic approach to women's safety, the final application exhibits features including safety heatmaps, alert dashboards, and contact resources. Our project's goal is to provide women and support groups with a potent tool that improves situational awareness and fosters a safer atmosphere for women.

INTRODUCTION

Women's safety has become a major concern in today's world due to the increasing number of crimes and harassment incidents. While law enforcement agencies strive to improve security measures, technology can play a crucial role in enhancing the personal safetyofindividuals, especiallywomen. Inmanycases, timelyinterventioncould prevent unfortunate incidents, but this requires real-time monitoring and communication. Withthe rise of mobile and web-based applications, a technological solution can provide an efficient platform to offer protection by alerting authorities or family members during emergencies.

This project aims to develop a comprehensive system to safeguard women from potential safety threats by leveraging location-based tracking, alert systems, anddataanalysis. The systemallows womento send distress signals to predefined contactsor law enforcement agencies when they feel threatened, accompanied by their real-time location. Additionally, by integrating machine learning algorithms, the system can analyze patterns in locations, times, and activities to predict areas ofpotentialdanger and alert users accordingly.

Thecoreobjectivesofthisproject areto:

- Providereal-time locationtrackingforcontinuousmonitoring.
- Facilitateanemergencyalertsystemthatsendsinstantnotificationstodesignated contacts.
- Allowuserstoreportincidentsthatcanbestoredandanalyzedfor patternrecognition.
- Usepredictiveanalysistowarnusersaboutpotentiallydangerousareas.
- Ensurethesystemisuser-friendly, secure,andreliableforallusers.

This project incorporates Java as the primary programming language for backend development dueto itsscalability,security,andstrong integrationwithvariousAPIs.The front end, built using HTML and CSS, provides a user-friendly interface for seamless interaction. The system also uses a database to store user information, incident reports, and other relevant data to assist in the analysis and prediction of safety threats.

In terms of real-world applications, this system can help reduce the response time of authorities in emergencies, increase user awareness about unsafe areas, and act as a preventive tool for potential threats. Moreover, it fosters a sense of security by empowering women with tools to take control of their safety.This introduction sets the foundation for the detailed discussion of the system's architecture, implementation, and potential impact on society in the subsequent sections of this project report. With continuous technological advancements and the rise of smart cities, such applications can integrateeven further into daily life, contributing to safer public spacesforwomen

- **GlobalRelevance**: Women'ssafetyisauniversalissue,affecting millionsworldwide.This project, though developed for local use, has the potential to be adapted for global usage, integrating country-specific safety protocols, legal frameworks, and emergency services.

- **UserAnonymity and Privacy**: Ensuring that the user's data, especially location information, ishandledsecurelyisparamount.Thesystememploysencryptiontechniquesto protectsensitive dataand maintainsanonymitywhennecessary, preventing anyunauthorized accessor misuseof the user's personal information.

- **CustomizableAlerts**:Thesystemallowsuserstocustomizetheiremergencycontactlist.This flexibility ensures that help can be immediatelydirected to close friends, family, or local authorities, depending on the user's situation and preference.

- **IntegrationwithSocialPlatforms**:Infutureversions,thesystemcould integratewithsocial media platforms, allowing users to broadcast their location or alerts in real-time to a wider community, which could offer additional safety measures.

- **OfflineCapabilities**:Thesystemisdesignedtofunctioneveninsituationswithpoorinternet connectivity by storing the user's last known location and triggering alerts via SMS-based notifications when no internet is available.

- **FeedbackMechanism**:Post-incident,theuser isprovidedwithanoptionto give feedbackon the event or suggest improvements to the system, creating a community-driven effort to continually refine and enhance safety protocols.

- **Community Support**: The system could further be expanded by involving community members who are willing to act as local "safetyofficers," providing on-the-ground assistance in caseofanemergency. Thiswouldcreateasafetynetworkbuilt uponbothtechnologyand human support.

- **Multilingual Interface**: Considering the diverse user base, the system supports multiple languages,ensuringaccessibilityforwomenfromvariousculturaland linguisticbackgrounds.

- **WearableIntegration**:Inthefuture,thesystemcould integratewithwearabledevices suchas smart watches, making it easier for women to send alerts with just a quick tap, even without accessing their mobile phones.

- **Collaborations with Local Authorities**: Partnerships with law enforcement agencies can streamlineresponsetimesduringemergencies.Thesystemcouldbeconfiguredto automatically forward alerts and real-time location data to the nearest police station.

- **Location-basedSafetyRatings**:Thesystemcanprovideuserswithsafetyratingsofspecific areasbasedonhistoricaldataand incident reports,helpingthemmake informeddecisionswhen travelling or visiting unknown locations.

- **Real-TimeSafetyTips**:Asthesystemmonitorstheuser'scurrent location, it canprovide real-time safetytips, suchas suggesting alternative routes ifthe user is nearing a potentially unsafe area.

- **Geofencing**: The systemcan implement geofencing technology, allowing users to set safe zonesforthemselves.Iftheusercrossesthesеboundaries,anautomaticalert canbetriggered.

- **EmergencyCallIntegration**:Withasimplebuttonpress,theappcandirectlyconnectthe user to local emergency services, ensuring immediate communication in critical situations.

- **Scalability**:Thearchitectureofthesystemisbuilt to scale,accommodatinggrowingdatabases of users, safety reports, and incidents without compromising on performance.

- **Volunteer Assistance**: A future version could involve a volunteer network where trained volunteersincloseproximitytotheusercouldofferimmediateassistance duringemergencies before authorities arrive.

- **Continuous Updates**: The systemcan provide users with continuous updatesonthe statusof their alertor incident report,ensuringtheyareawareofanyactionsbeingtakenbyauthoritiesor their emergency contacts.

- **SafeNavigation**:Beyondsafetyalerts,thesystemcanoffernavigationassistance,guiding users through the safest routes, especially when travelling in unfamiliar areas.

- **Self-defenceTipsandResources**:Theappcanoffereducationalresourcessuchasself-defence tutorials or tips to help users prepare for emergency situations and increase their awareness.

- **Mental Health Support**: Post-incident, the app can provide information or connections to mentalhealthsupport services, ensuringthattheemotionalandpsychologicalwell-beingofthe user is addressed after a traumatic experience.

PROJECT DESCRIPTION

The Women Safety Analysis is Protecting Women from Safety Threats project is designed to address the growing concerns around women's safety by providing a software solution that offers real-time data insights, alert notifications, and access to emergency resources. The application analyzes safety-related data, identifies high-risk areas, and offers recommendations, aiming to empower women with actionable safety information. By integrating features like location-based safety alerts, incident reporting, and quick access to emergency contacts, the software provides users with essential tools to make informed decisions in potentially unsafe situations. This project focuses on the development of a user-centric software that leverages data analytics to protect women from potential safety threats. By gathering, processing, and visualizing data on safety conditions across various locations, it enables users to stay aware of risks and access help in emergencies. With a simple yet effective user interface, the software will allow users to report incidents, receive alerts about high-risk zones, and contact local authorities quickly. This project not only aims to protect women but also contributes to creating a safer environment by raising awareness and enabling proactive responses to threats.

Core Features:

- **Location-Based Safety Alerts**: Analyzes data to provide users with real-time safety alerts about nearby areas with potential risks.
- **Incident Reporting**: Allows users to report unsafe situations instantly, contributing to data collection and enabling swift responses.
- **Emergency Contacts and Quick-Access Resources**: Provides a directory of local authorities and support services that users can quickly access in emergencies.
- **Data Visualization**: Uses heatmaps or other visual tools to represent high-risk areas, giving users a quick overview of safer routes and locations.
- **Problem Solved**: Addresses the pressing issue of women's safety by providing an accessible platform for receiving and reporting safety information, making users more aware and proactive in potentially dangerous situations.
- **User Interface Design**: A simple, intuitive interface designed to be easy to navigate, even in emergencies, with minimal steps to access information, report incidents, or contact authorities.
- **Data Security**: Ensures that any collected data is stored securely to protect users' privacy while still enabling meaningful data analysis for safety enhancement.
- **Safety Analysis Approach**: Uses data analytics to monitor patterns, detect trends in high-risk locations, and deliver insights on safer practices.
- **Impact**: The project aims to enhance personal security and promote a culture of awareness, with potential societal benefits in reducing safety incidents by helping individuals make better-informed decisions.
- **Future Enhancements**: Potential to integrate predictive analysis, mobile application versions, and live data sharing with law enforcement agencies for a more robust and scalable safety tool.

This project not only seeks to provide a practical safety resource but also aims to raise awareness about the importance of personal security, contributing to the broader goal of creating safer communities.

PROBLEM DESCRPTION

Women's safety remains a critical issue worldwide, with risks that vary depending on location, time, and other situational factors. Many women lack access to reliable safety resources that could help them navigate or avoid high-risk areas. This gap in accessible and timely information on safety conditions increases vulnerability and reduces situational awareness, especially in urban environments. Thus, there is a need for a solution that not only alerts users to potentially dangerous areas but also provides tools to report incidents, access emergency contacts, and receive preventive guidance.

The objective of this program is to build a simple, user-friendly software application for Women's Safety Analysis. This software will enable users to receive real-time alerts about unsafe areas, report safety incidents, and access emergency contact information with ease. The program will utilize data analytics to assess location-specific risks, deliver preventive information, and offer quick-access resources in a well-organized, intuitive interface designed to help women stay informed and prepared in any situation.

Furthermore, many incidents go unreported due to the lack of accessible, anonymous reporting channels, which could otherwise contribute valuable data to support collective safety efforts. The software's incident reporting feature aims to encourage users to share information about threats, making it easier to identify and address high-risk areas over time. This creates a community-based approach to safety, where user-generated reports contribute to a safer environment for all.

- **Global Safety Concern**: Women worldwide face safety threats that hinder their freedom, affecting not only their mobility but also their mental and emotional well-being. Despite various measures, there is still a gap in real-time safety resources that women can easily access.
- **Lack of Real-Time Information**: Most safety solutions do not offer real-time insights on high-risk areas, limiting users' ability to make informed decisions based on up-to-date information.
- **Incident Underreporting**: Many unsafe incidents go unreported due to the lack of accessible reporting platforms, which could help improve safety for others by providing data for trend analysis and preventive measures.
- **Inadequate Emergency Resources**: In many situations, women lack immediate access to emergency contacts, making it difficult to seek help when they feel unsafe or are in danger.
- **Need for Proactive Safety Measures**: There is a need for a proactive approach that not only provides alerts for high-risk areas but also educates users on safer practices and provides tools to improve situational awareness.

The software thus not only offers immediate safety support but also paves the way for a future where predictive technology could further reduce risks and improve women's safety in real-time.

TOOL DESCRIPTION

User Interface

The user interface (UI) is designed to be intuitive and easy to use, with minimal steps required to access key features. The main components of the UI include:

1. **Safety Dashboard**: A central hub where users can quickly view the status of nearby locations, including real-time alerts and safety trends.
2. **Map View**: A geographical map displaying high-risk areas using color-coded heatmaps, with clickable locations to access detailed information.
3. **Incident Reporting Form**: A simple form for users to report incidents anonymously, with fields for type of incident, location, and a brief description.
4. **Emergency Contacts Section**: A list of emergency contacts that users can dial directly with a single click, including local authorities, women's helplines, hospitals, and other relevant services.
5. **Safety Tips**: A section dedicated to providing educational resources, such as self-defense tips, emergency preparedness advice, and situational awareness guidelines.
6. **User Settings**: Allows users to customize alert preferences, such as setting preferred notification methods (text, email, or push notifications) and specifying locations of interest for safety monitoring.

Features

- **Real-Time Safety Alerts**: Users receive notifications when they approach high-risk areas, based on reported incidents and known patterns of unsafe locations.
- **Incident Reporting**: Users can anonymously report safety incidents, helping to build a collective safety database. This also allows for the creation of high-risk area maps, based on real-time user input.
- **Location-Based Safety Insights**: The software uses geographic data to provide users with safety ratings for their current or planned locations. Alerts and advice are tailored to their immediate surroundings.
- **Emergency Contact Access**: A quick-access feature for contacting emergency services like police, medical services, or women's helplines directly from the app.
- **Safety Heatmaps**: Visual representations of high-risk areas based on aggregated incident data, allowing users to visually assess safer and riskier zones in real-time.
- **Customizable Alerts**: Users can set location-based and time-based alerts, enabling them to receive notifications about safety risks for specific locations or times of day.
- **Safety Tips and Resources**: A dedicated section offering educational content, such as self-defense techniques, tips for navigating risky environments, and other personal safety strategies.
- **Community-Driven Data**: The app allows users to contribute to a community-driven database by reporting incidents and sharing local safety information, which enhances the collective safety network.
- **Offline Functionality**: Certain features, such as emergency contacts and safety tips, can function offline to ensure accessibility even in areas with poor network coverage.
- **Multi-Language Support**: The software can be configured to support multiple languages, ensuring accessibility for users from diverse backgrounds.women to stay informed and take preventive measures in potentially unsafe situations.

FLOWCHART

Figure 4.1:Flowchart

1. Start

- Thesystembeginswhentheuseropenstheapplicationand logsinusingtheir credentials. If the user is new, they must register an account.

2. UserRegistration/Login

- **DecisionPoint**: Istheuserregistered?
  - If**yes**,proceedtouserlogin.
  - If**no**,theuser must registerbyprovidingpersonalinformationlikename,phone number, and emergency contacts.
- Aftersuccessfulregistrationorlogin,theuser isdirectedtothemaindashboard.

3. Real-TimeLocationTracking

- **Process**:Theusercanactivatelocationsharing,whichsendscontinuouslocation updates to the server.
  - The**GoogleMapsAPI**(or equivalent) fetchesthereal-timeGPS coordinates.
  - The**Location TrackerService**storesthisinformationinthedatabase.

4. SendAlert

- **DecisionPoint**: Doestheuserfeelunsafeorisinanemergency?
  - If**yes**,theuser sendsadistressalerttotheir emergencycontacts.
- **Process**:
  1. Thealert systemsendsareal-timealert viaSMS/Email, includingtheuser's current location.
  2. Thesystemlogsthealertinthedatabase.

5. ReportIncident

- **DecisionPoint**:Hasanincidentoccurred?
  - If**yes**,theuserfillsoutaformtoreportthe incident(e.g.,location,time, description).
- **Process**:
  1. Thesystemstorestheincidentreportinthedatabase.
  2. Theincidentdataisusedforfutureanalysisbythe**PredictionModel**.

6. SafetyPrediction(MachineLearning

ThePredictionEnginerunscontinuously,analyzinghistoricaldataofreported incidents, location patterns, and other factors to predict unsafe areas.

- **Process**:
  1. Thesystemchecksforpatternsorclustersofincidentsinspecificareasortimes of day.
  2. Ifapotentiallyunsafezone is identified, usersarenotified inreal-timewhen they enter that zone.
- **DecisionPoint**:Isthecurrentlocationmarkedasunsafe?
  If**yes**,the systemtriggersa proactive alert towarnthe use.

7. NotificationandAlerts

- Aftersendingthealertorreportinganincident,the systemupdatestheemergency contacts with the necessary information.
- **Process**:
  1. Alertsaresenttoemergencycontacts.
  2. Thesystemsendsaconfirmationtotheuserthat thealertwassuccessfullysent.

8. End

- The user logs out, ending the session, but the system continues to run in the background,performinglocationtracking(ifactivated)andmonitoringforsafety threats.

OPERATIONS

The Women Safety Analysis software operates through several key functionalities that work together toenhance user safety. The following are the main operations that the software performs

Storing User Information

- The software allows users to create and store basic personal information, such as their first name, last name, and contact details, which are securely stored in the database.
- Users can set preferences for alert notifications (e.g., receiving SMS or email alerts about high-risk areas).
- The software stores a list of emergency contacts (e.g., police, hospitals, women's helplines, personal contacts) that users can quickly access during an emergency.
- The quick dial feature allows users to directly call emergency numbers with a single tap or click, ensuring fast access to help in critical situations.

Safety Tips and Resources

- Users can access a section of the software that provides safety tips, including advice on self-defense, situational awareness, and emergency preparedness.
- The software also includes links to external resources such as women's safety organizations, helplines, and articles on personal security.

Data Analytics and Insights

- The software uses collected data to generate insights about safety trends, such as common types of incidents, frequently reported high-risk areas, and time-based trends (e.g., higher incidents at night).
- These insights are presented to users via reports or notifications, helping them make informed decisions about which areas to avoid and when to stay alert.

User Customization

- Users can customize the software's alert settings, including the type of notifications they want to receive (SMS, email, push), preferred alert frequency, and regions of interest for safety monitoring.
- Users can also update their personal information and emergency contacts at any time, ensuring the software is always up-to-date with their preferences.

Data Security and Privacy

- All user data, including personal details, reported incidents, and location history, is stored securely using techniques to ensure privacy. The real-time alerts, incident reporting, and resource management are designed to help women stay informed, and connected to help need.

MODULE DESCRIPTION

It sounds like you want to design modular software where each operation is encapsulated within an individual function. Here's a basic outline of this approach

- **Identify Core Operations:** Start by listing all the key operations the software needs to perform. Each operation will later become a separate function.
- **Create Individual Functions:** For each operation, define a single function that performs only that specific task. The function should be as self-contained as possible, taking necessary parameters and returning results directly. This makes it easy to reuse and test each function independently.
- **Design Unified Interface:** Once all functions are defined, combine them into a central interface (e.g., a main module or controller function). This module coordinates calls between functions and manages the overall program flow.
- **Error Handling and Validation:** Ensure each function includes appropriate error handling and validation. This helps the main interface catch issues at the function level.
- **Testing Each Function**: Since each function is independent, testing is easier. Create unit tests for each function, which also makes it easier to debug and optimize individual parts.
- **Documentation:** Provide clear documentation for each function, including its purpose, inputs, outputs, and any dependencies.
- **Scalability:** With this structure, adding new functions is straightforward, as each is isolated from others and can be integrated with minimal disruption.

One effective method for developing, maintaining, and scaling programs is to create modular software by specifying distinct functions for every action. This method starts by determining the essential functions and condensing them into a single, clearly defined function. Each function should conform to explicit input-output definitions, manage dependencies flexibly (e.g., through dependency injection), and use consistent naming standards to facilitate cooperation and guarantee clarity. Similar functions can be grouped into classes or modules to improve readability and provide logical boundaries. Other developers may comprehend the purpose, inputs, outputs, and dependencies of each function without having to comb through complicated code thanks to well-written documentation, such as docstrings and annotations. Additionally, modular architecture promotes isolated tests for individual functions as well as tests for integration, making unit and integration testing easier for combined operations. Leveraging configuration files for constants keeps code adaptable, while profiling and caching key functions improves performance without sacrificing modularity. Centralized error logging, edge-case handling, and secure data handling ensure robustness, even in production environments. Altogether, this modular design philosophy results in highly maintainable, scalable software that adapts easily to new features or updates.

CODE IMPLEMENTATION

HTMLCODE

HOMEPAGE

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Women Safety Analytics - Index</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            margin: 0;
            padding: 0;
            height: 100vh;
            display: flex;
            justify-content: center;
            align-items: center;
            background-color: #f2f2f2;
            background-image: url('womens safety.jpg');
        }
        .container {
            position: relative;
            width: 100%;
            height: 100%;
            display: flex;
            justify-content: center;
            align-items: center;
        }
        /* Circular SOS button in the center */
        .sos-button {
            display: flex;
            justify-content: center;
            align-items: center;
            width: 150px;
            height: 150px;
            background-color: green;
            color: white;
            font-size: 24px;
            text-align: center;
            border: black;
            cursor: pointer;
            border-radius: 50%;
            box-shadow: 0px 4px 10px rgba(0, 0, 0, 0.3);
            transition: transform 0.2s;
        }
```

```
.sos-button:hover {
    transform: scale(1.05);
    background-color:red;
}
.profile {
    position: absolute;
    top: 20px;
    left: 20px;
}
.profile img {
    width: 150px;
    height: 150px;
    border-radius: 50%;
    border: 2px solid yellow;
    object-fit: cover;
    color: black;
}
/* Profile container */
.profile {
    width: 07px;                /* Width of profile box */
    height: 07px;
    background-image: url('profile.png'); /* Background image path */
    background-size: cover;        /* Ensures image covers the box */
    background-position: center;   /* Centers the image */
    background-repeat: no-repeat;  /* Prevents the image from repeating */
    border-radius: 50px;           /* Optional rounded corners */
    color: white;
    border: 3px solid black;
    display: flex;
    flex-direction: column;
    align-items: center;
    justify-content:center;
    text-align: center;
    padding: 20px;
    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2); /* Adds shadow for a better look */
}

/* Profile image styling */
.profile img {
    width: 70px;
    height: 70px;
    border-radius: 50%;            /* Makes the image circular */
    border: 2px solid black;       /* Optional border around profile picture */
    margin-bottom: 0px;
}
 /* Styling for the left-side links container */
 .left-link-container {
    position: fixed; /* Keeps the container fixed on the left */
```

```
            top: 50px;       /* Distance from the top of the page */
            left: 10px;      /* Distance from the left edge of the page */
        }

        /* Styling for each individual link */
        .left-link {
            display: block;          /* Places each link on a new line */
            padding: 10px 10px;      /* Adds padding inside the links */
            background-color: #4CAF50; /* Background color */
            color: white;
            text-decoration: none;
            border-radius: 5px;
            font-family: Arial, sans-serif;
            margin-top: 50px;       /* Adds space between the links */
        }

        .left-link:hover {
            background-color: #45a049; /* Hover effect */
        }
    </style>
</head>
<body>
    <div class="container">
        <!-- Profile Image on the top-left -->
        <div class="profile">
            <a href="profile.html">
                <img src="Car.jpeg" alt="Profile Image">
            </a>
            <!-- Left-side links container -->
             <div class="left-link-container">
    <a href="https://go.screenpal.com/watch/cZQDjDVSfQf" class="left-link">Emergency Kit
Working Process</a>
    <a href="https://go.screenpal.com/watch/cZQDjDVSfQn" class="left-link">Camera Working
Process</a>
        </div>
        </div>
        <!-- Circular SOS Button in the center -->
        <button class="sos-button" onclick="handleSOS()">SOS</button>
    </div>

    <script>
        function handleSOS() {
            if (navigator.geolocation) {
                navigator.geolocation.getCurrentPosition(sendLocation, showError);
            } else {
                alert('Geolocation is not supported by this browser.');
            }
        }
```

```
        function sendLocation(position) {
            const latitude = position.coords.latitude;
            const longitude = position.coords.longitude;

            // Send the location data to the server via POST
            const xhr = new XMLHttpRequest();
            xhr.open("POST", "send_sos.php", true);
            xhr.setRequestHeader("Content-Type", "application/x-www-form-urlencoded");
            xhr.onreadystatechange = function () {
                if (xhr.readyState === 4 && xhr.status === 200) {
                    alert('SOS Alert Sent with your live location!');
                }
            };
            xhr.send(`latitude=${latitude}&longitude=${longitude}`);
        }

        function showError(error) {
            switch (error.code) {
                case error.PERMISSION_DENIED:
                    alert("User denied the request for Geolocation.");
                    break;
                case error.POSITION_UNAVAILABLE:
                    alert("Location information is unavailable.");
                    break;
                case error.TIMEOUT:
                    alert("The request to get user location timed out.");
                    break;
                case error.UNKNOWN_ERROR:
                    alert("An unknown error occurred.");
                    break;
            }
        }
    </script>
</body>
</html>
```

Profile:

```
<!DOCTYPEhtml>
<htmllang="en">
<head>
   <metacharset="UTF-8">
   <metaname="viewport"content="width=device-width,initial-scale=1.0">
   <title>UserProfile</title>
   <style>

      h1{
         margin-top:20px;
         color: #444;
      }
      ul{
         list-style-type:none;
         padding: 0;
      }
      ulli{
         margin-bottom:10px;
      }
      /*Profilephotostyle*/
      .profile-photo img {
         width: 150px;
         height: 150px;
         border-radius:50%;
         object-fit: cover;
         margin-bottom:20px;
      }
   </style>
</head>
<body>
      <h1>ProfileOptions</h1>
      <ul>
         <li><ahref="personal.html">PersonalDetails</a></li>
         <li><ahref="family.html">FamilyDetails</a></li>
         <li><ahref="EmergencyContact.html">EmergencyContact</a></li>
      </ul>
</div>
</body>
</html>
```

PersonalDetails:

```
<!DOCTYPEhtml>
<htmllang="en">
<head>
   <metacharset="UTF-8">
   <metaname="viewport"content="width=device-width,initial-scale=1.0">
   <title>PersonalDetails</title>
   <linkrel="stylesheet"href="styles.css">
</head>
<bodyclass="personal-details-page">
   <divclass="container">
      <h1>EnterPersonalDetails</h1>
      <formaction="family.html">
         <inputtype="text"name="name"placeholder="Name"required>
         <inputtype="number"name="age"placeholder="Age"required>
         <inputtype="tel"name="phone_number"placeholder="PhoneNumber"required>
         <inputtype="text"name="gender"placeholder="Gender"required>
         <inputtype="text"name="address"placeholder="Address"required>
         <buttontype="submit">Next</button>
      </form>
</div>
</body>
   </html>
```

FamilyDetails:

```
<!DOCTYPEhtml>
<htmllang="en">
<head>
   <metacharset="UTF-8">
   <metaname="viewport"content="width=device-width,initial-scale=1.0">
   <title>FamilyDetails</title>
   <style>
      body{
         background-color: #f8f9fa;
         font-family:Arial,sans-serif;
      }
      .container {
         width:400px;
         margin: 50px auto;
         background-color:white;
```

```
            border-radius:10px;
            padding: 20px;
            box-shadow:0015pxrgba(0,0, 0,0.2);
        }
        h1{
            text-align:center;
            color: #333;
        }
        input, button {
            width: 100%;
            padding: 10px;
            margin:10px0;
            border:1pxsolid#ddd;
            border-radius: 5px;
        }
        button{
            background-color:#28a745;
            color: white;
            border: none;
            cursor:pointer;
        }
        button:hover{
            background-color:#218838;
        }
    </style>
</head>
<body>
    <divclass="container">
        <h1>FamilyDetails</h1>
        <formaction="EmergencyContact.html">
            <labelfor="name">FamilyMemberName:</label>
            <inputtype="text"id="name"name="name"required>
            <labelfor="age">Age:</label>
            <inputtype="text"id="age"name="age"required>
            <labelfor="phone">PhoneNumber:</label>
            <inputtype="text"id="phone"name="phone"required>
            <labelfor="relation">Relation:</label>
            <inputtype="text"id="relation"name="relation"required>
            <labelfor="address">Address:</label>
            <inputtype="text"id="address"name="address"required>
```

```
            <buttontype="submit">SaveFamilyDetails</button>
        </form>
</div>
</body>
    </html>
```

EmergencyContact:

```
    <!DOCTYPEhtml>
    <htmllang="en">
    <head>
        <metacharset="UTF-8">
        <metaname="viewport"content="width=device-width,initial-scale=1.0">
        <title>EmergencyContactForm</title>
        <style>
            body{
                background-color: #007bff;
                font-family:Arial,sans-serif;
            }
            .container {
                width:400px;
                margin: 50px auto;
                background-color:white;
                border-radius: 10px;
                padding: 20px;
                box-shadow:0015pxrgba(0,0, 0,0.2);
            }
            h1{
                text-align:center;
                color: #333;
            }
            input, button {
                width: 100%;
                padding: 10px;
                margin:10px0;
                border:1pxsolid#ddd;
                border-radius: 5px;
            }
            button{
                background-color:#dc3545;
                color: white;
```

```
            border: none;
            cursor:pointer;
        }
        button:hover {
            background-color:#c82333;
        }
    </style>
</head>
<body>
    <divclass="container">
        <h1>EmergencyContact</h1>
        <formaction="Homepage.html">
            <labelfor="name">Contact Name:</label>
            <inputtype="text"id="name"name="name"required>

            <labelfor="phone">PhoneNumber:</label>
            <inputtype="text"id="phone"name="phone"required>

            <labelfor="relation">Relation:</label>
            <inputtype="text"id="relation"name="relation"required>

            <labelfor="address">Address:</label>
            <inputtype="text"id="address"name="address"required>

            <buttontype="submit">SaveContact</button>
        </form>
</div>
</body>
</html>
```

RESULTS

OUTPUT AND SCREENSHOTS:

Figure8.1:HomePage

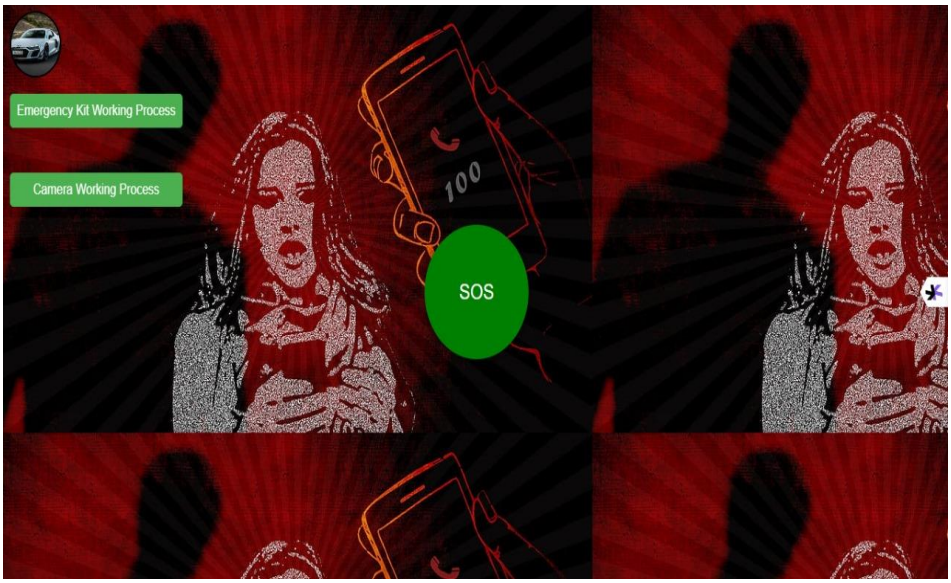
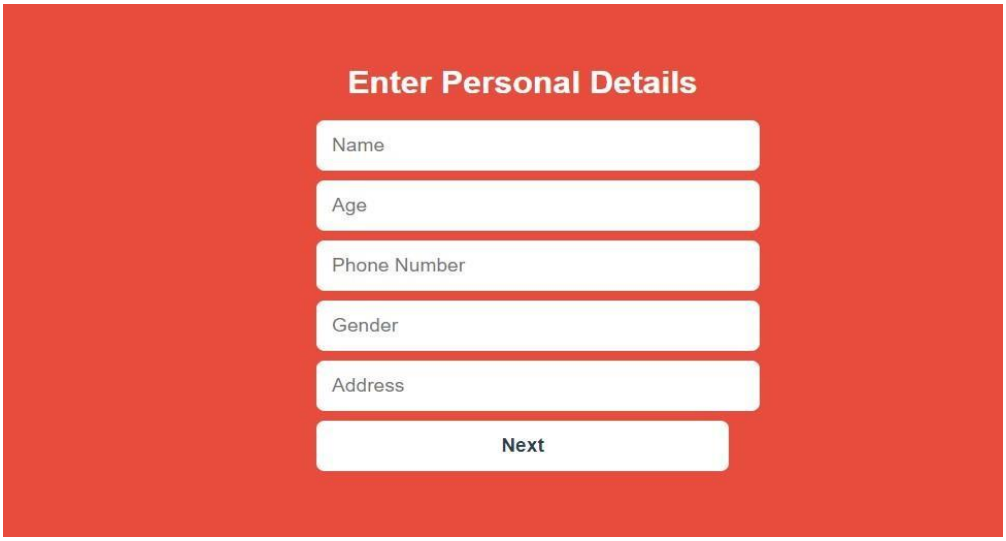


Figure8.2:PersonalDetails



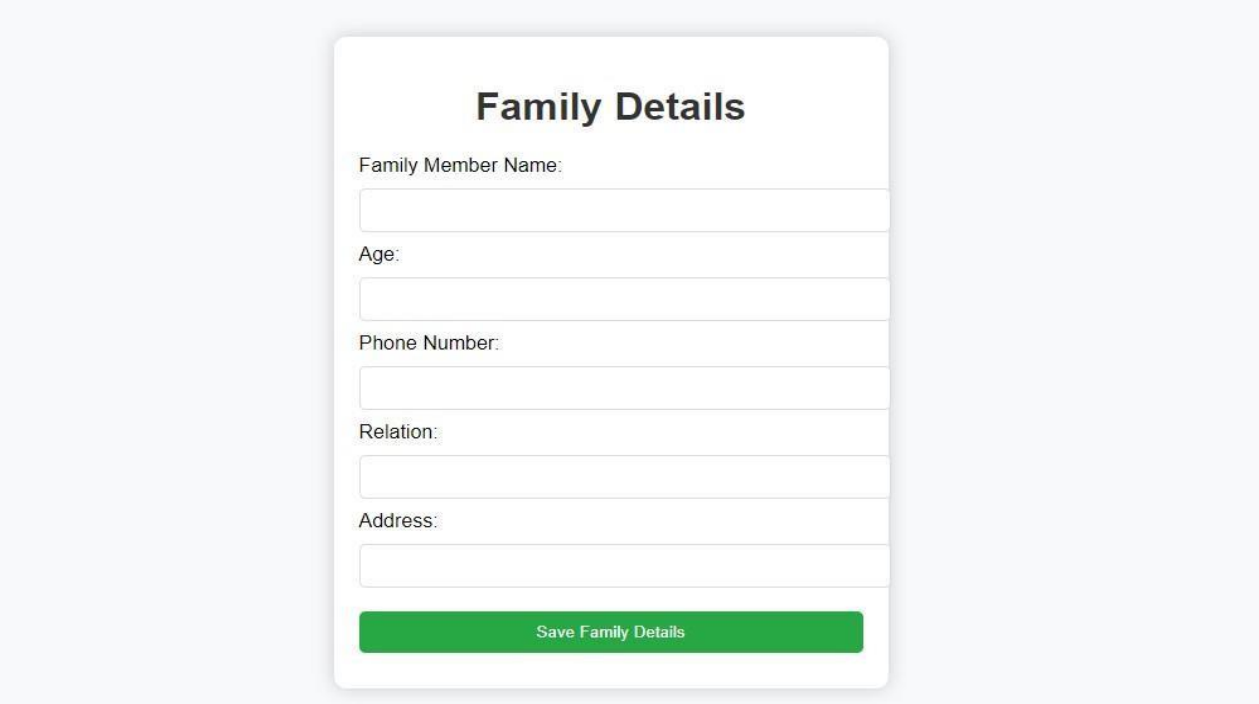


Figure8.3:FamilyDetails

Figure8.4:EmergencyContact

CONCLUSION

Inconclusion, the **“Women'sSafetyAnalysisSystem”** isdesignedto enhance thesafety and well-being of women by providing a comprehensive platform for reporting emergencies, analyzing safety data, and facilitating timely responses from authorities.The UML Class Diagram presented in this report delineates the system's architecture, outlining the key classes—User, Emergency Report, Safety Analysis, Admin, and Authorities and their respective attributes and methods.

The interactions between these classes demonstrate how the system functions cohesively to empower users to report incidents, analyze trends, and ensure that appropriate authorities are alerted in real-time. This not only fosters a sense of security but also contributes to a broader understanding of safety issues affecting women in various communities.

By effectively leveraging technology to collect and analyze data, the Women's Safety Analysis System serves as a vital tool for improving personal safety and fostering a proactive approach to addressing women's safety concerns. The system's user-friendly interface, coupled with robust backend functionalities, positions it as a valuable resource for individuals, community leaders, and law enforcement agencies alike.

This report emphasizes the importance of creating a supportive environment where women can feel safe and secure. As we move forward, continuous enhancements and updates to the system will be essential to adapt to the evolving safety landscape and to meet the needs of users effectively. Overall, the Women's Safety Analysis System represents a significant step towards promoting safety and empowerment for women in society.

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