UB Campus Safety

Software Engineering: Project Proposal

Group Members:

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Problem Diagnosis

The University of Belize needs a comprehensive and user-friendly Campus Safety App that meets the safety demands of its students, teachers, and staff. While existing safety measures are practical, they lack the convenience, real-time information dissemination, and tailored help a well-designed app may offer. There is an increasing demand for a centralized platform that allows people to respond to crises, acquire vital safety information, and get timely notifications. The app strives to improve the safety and security of all campus community members by providing real-time warnings, location-based help, and unified safety resources, fostering a positive atmosphere for learning, work, and personal well-being.

Goal Statement

The main goals of the UB Campus Safety App project are as follows:
Provide students, instructors, and staff with an easy-to-use platform for accessing emergency assistance. Enable real-time reporting of safety issues, events, and suspicious activity. Facilitate communication between users and campus security officers.
Provide crucial information such as evacuation plans and shelter locations during an emergency. Promote a culture of safety and awareness among the campus community.

Proposed Treatment

The proposed Campus Safety App for the University of Belize will be a comprehensive mobile application designed to meet the diverse safety needs of students, faculty, and staff. The app will include the following key features:

Services

1. Emergency Alerts and Notifications:

- Brief Description: The app will send users timely emergency alerts and notifications regarding any safety-related issues on the UB campus.
- Programming Decision: Write programs to handle real-time communication and push notifications.

2. Virtual Safe Walk:

- Brief Description: Users can request a virtual companion to monitor their journey on the campus map in real time, enhancing personal safety.
- Programming Decision: Develop the algorithms and interface to track users' locations and provide real-time monitoring.

3. Emergency Services Locator:

- Brief Description: The app will help users locate nearby emergency services such as police stations, medical facilities, and emergency call boxes.
- Programming Decision: Integrate mapping APIs and develop custom algorithms for optimal service recommendations.

4. In-App Emergency Assistance:

- Brief Description: Users can quickly call for assistance or report incidents directly through the app, providing a streamlined communication channel for emergencies.
- Programming Decision: Write programs for emergency calls, messages, and incident reporting.

5. Safety Tips and Resources:

- Brief Description: The app will offer safety tips and provide access to educational resources on campus safety.
- Programming Decision: Develop content management systems and interactive features to deliver safety information effectively.

6. Event Check-In and Tracking:

- Brief Description: Users attending campus events can check in and share their location for added security during gatherings.
- Programming Decision: Implement event management features and location-tracking algorithms.

7. Emergency Contacts Repository:

- Brief Description: Users can store and manage their emergency contacts within the app for quick access during critical situations.
- Programming Decision: Write programs to manage and retrieve contact information securely.

8. Incident Reporting and Feedback:

- Brief Description: The app will allow users to report safety concerns and incidents or provide feedback to improve campus safety.
- Programming Decision: Develop reporting forms, data storage, and feedback processing functionalities.

Implementation Plan

We will work as a team to construct and design the 'UB Campus Safety' application, and we have agreed to do so in five essential phases.

Phase 1: Needs Assessment

Duration: 1 week

- Conduct surveys, focus groups, and interviews to identify the specific safety requirements and preferences of the University of Belize community.

Phase 2: Design and Development

Duration: 2 weeks

- Develop wireframes, prototypes, and user interface designs for the Campus Safety App, incorporating feedback from stakeholders to ensure usability and accessibility.

Phase 3: Technical Development

Duration: 3 weeks

- Utilize mobile app development frameworks and technologies to build the functional components of the app, including backend infrastructure for data storage and processing.

Phase 4: Testing and Quality Assurance

Duration: 1 week

- Conduct comprehensive testing procedures to identify and address any bugs, usability issues, or security vulnerabilities in the app.

Phase 5: Deployment and Training

Duration: 1 week

- Release the Campus Safety App on major app stores and conduct training sessions to familiarize users with its features and functionalities.

Programming Description:

The programming aspect of this project involves developing custom algorithms, real-time communication systems, data storage and retrieval mechanisms, and interactive interfaces. It includes writing code for emergency calls, location tracking, incident reporting, and event check-ins. Custom programming is essential to ensure the system's efficiency, security, and seamless integration of various features.

Typical System Customers

The typical system customers include:

- University students and staff
- Campus security and emergency services
- Campus event organizers
- Anyone seeking to enhance their safety on the UB campus
- These customers would benefit from the app's features, ensuring a safer and more secure campus environment.

Conclusion

The proposed Campus Safety App for the University of Belize represents a proactive and innovative approach to enhancing campus safety and security. By providing real-time warnings, location-based assistance, and consolidated safety resources, the app aims to create a safer and more secure environment for all university community members. Thank you for considering this proposed treatment, and we look forward to collaborating with the University of Belize to implement this vital initiative.

Team Profile

Name	Qualifications	Strengths
Tamika Chen	Database Designer/Manager	Organizational Skills, Excellent Experience in Writing Reports
Alex Peraza	Mobile App Developer	Experience in developing real applications, Problem Solving Skills

Raynisha Cornelio	Documentation Specialist/Event Manager	Time Management Skills, Proofreading skills, Excellent Communication Skills Experience in web Design & CSS
Abner Mencia	BackEnd Developer	Excellent Problem-Solving Skills, Presentation Skills
Javier Castellanos	FrontEnd Developer	UI/UX Designing skills