CEN 4020: Software Engineering I, Fall 2020
Florida State University
- Group Project Proposal Template –

DEADLINE: Monday, September 21th, 11:59pm on Canvas (only one team member needs to submit)

1. **Project title**
   TripleR

2. **Brief overview of what you are proposing**
   This is a police misconduct reporting platform iOS app for users to share their experiences and encounters with police by recording important details and evidence of these encounters in a secure, encrypted database. The goal of this app is to provide users a "Report" function that requests information essential to accurate local officer misconduct reports such as officer name, description, vehicle number, witness information, and event description so that a report can be filed more accurately in each community. There will also be a "Record" function that captures events like traffic stops on video or audio, depending on the user's needs. Finally, we aim to provide a "Rights" page that lists users' rights when they are stopped or in tense situations with police.

3. **Motivation**
   Due to the civil rights movements over the summer and the rise in prominence of violence against Black communities continued by police, we are motivated to make an app that provides some accountability for police actions and gives citizens of any color the chance to use their voice when they see something wrong or with the potential to go wrong. There is a lack of civilian-led police accountability, or standards that officers' actions are held up to, compared to people in every other service and industry, and this app hopes to bridge that gap.

4. **Features to be implemented and types of users**

   - Essential at Minimum Features:
     - REPORT:
       - Collect and store officer information in database
       - Data entry for witness info if applicable, description of incident, and past user saved reports, location, timestamp of incident
       - Collect user location and timestamp information automatically in app
     - RECORD: record surrounding voice or video in app
     - RIGHTS: page listing user rights in Florida in encounters with police, tips in encounters
     - SETTINGS: asks user to share location, access to files, camera, and location
   - Users:
     - Regular user, anonymity optional. All users of app has access to same and above all features to preserve anonymity and privacy.

5. **Risk / Challenges**

   Challenges:
   - Biting off more than we can chew; first, we will focus on implementing the bare minimum features listed above and add ideas on as time allows.
   - Learning curve with frontend, backend, and database management

- Technology at hand; we all have iOS devices, so we should be able to run XCode.

6. Existing related projects

Callisto:

- Callisto is a sexual assault reporting app aimed at helping campus victims anonymously report sexual assault. It "matches" a user's case with another for repeat offenders. However, the report isn't sent to the right authorities unless this match occurs. It has recently transitioned from a mobile app to a website offering its services 24/7. Ours will be different because the reporting methods between police misconduct and Title IX vary; but we are inspired by the idea to support anonymous timestamped report generation by users, in case they feel secure enough to submit it in the future, or to pursue legal action on their own.

JDoe:

- JDoe is also a sexual assault reporting app, but a mobile app available to college students. It allows anonymous reports at any time the user feels ready to submit information about the incident. If there is a "match" with a previous report, the user is allowed to contact an attorney through the app. This app has two kinds of users: presumably student and attorney. Attorneys are connected with users directly through the app for their cases. It also implements a map around the user showing numbers and locations of other JDoe reports, and finds local resources for law enforcement, counseling, and medical services. Ours will be different because we are generating police misconduct reports; in addition, we will not be providing legal services. Our app will be mainly to securely store this information for the user to send to the police station themselves, or pursue legal action independently. (We will also save the cost on lawyers that way.)

ACLU Mobile Justice App:

- This is a police misconduct that records footage and reports anonymously and sends it to the user's local American Civil Liberties Union (ACLU) chapter. This is the most similar to the app we want to develop. This app isn't available in Florida or all 50 states; we hope to share local Florida resources in our app instead. The app has a record, report, witness function for users to record encounters on video, and once it stops recording, is automatically sent to the ACLU chapter. The report feature collects location, person stopped, officer information, officer actions that are sent to the ACLU as well without saving. Our app will be different because we are generating police misconduct reports, or the bare bones of one for local police misconduct reports. It is up to the user to send it directly to the police station. Otherwise the information will be securely and anonymously stored until the user is ready to send it.

7. Intended platform / programming language

Frontend: iOS (XCode) / Swift
Backend: Flask / Python
Database: Mongodb / Python

8. Third-party libraries / APIs to be used

Web framework: Flask
Database: Mongodb
Hardware: tested on own iPhones
APIs:

- CocoaPods: GoogleReverseGeoCode

**Disclaimer: more APIs/services to be added with added functionalities

9. Team members, expertise, project responsibilities, and team organization

Communication: via Zoom meetings (held every Wednesday) and GroupMe

Team Organization: cooperation based on interests/skills; tasks assigned by interests but shared by all through learning process.

Team Members:

- William Tsaur (FSU ID: wt18)
    - Expertise: iOS 13 app development with XCode, Swift, C++, C, Firebase, Machine Learning with CoreML, Augmented Reality with ARKit (1 and 2), Networking and APIs
    - Tasks Assigned:
        - Frontend iOS development in Swift, Xcode
        - Backend
- Melissa Ma (FSU ID: mm16bn)
    - Expertise:
        - Languages: Python, C++, C, C#, Java
        - Mobile Programming: iOS development in XCode (Swift)
        - Databases: MySQL
    - Tasks Assigned:
        - Frontend iOS development in Swift, XCode
        - Databases in Mongodb, Python
- Rachael Scott (FSU ID: ras16k)
    - Expertise:
        - Languages: C, C++, C# (learning)
        - Database Management SQL, Oracle
        - SWE Agile Development Experience
    - Tasks Assigned:
        - Frontend iOS in XCode, User Interface
        - Database: MongoDB
- Orlando Lewis (FSU ID: ol18d)
    - Expertise:
        - Languages: Python, C++, C, C#, Java, JavaScript, Nodejs, PHP, HTML5
        - API Development
        - Web Development
        - Architecture
        - Program Management
    - Tasks Assigned:
        - Backend : API development using Python and Flask
        - Databases in Mongodb connected using Python

** Disclaimer: all work is shared between group members.