**Project: 911 User & Responder Tool**

*This project aims to help 911-emergency operator to help locate the caller in seconds. Due to the use of outdated technology, more than 50% of the calls made to the emergency response team fails to locate the caller, and this project provides a solution, saving precious lives.*

This project can be divided into three major parts:

1. **Windows Application** for the 911 Operator to access the caller’s location and information.
2. An **SQL Database** and a **Web API** to help to store information and send the caller’s geographic location, respectively.
3. **Android App** for the user to send the operator information, location when 911 is dialed.

The features of these parts are discussed below in detail:

**Windows Application**

* Ability to retrieve encoded information about the caller from the SQL database.
* Ability to decode the location of the caller
* Show the location of the caller in a GUI map using Google Maps public API
* Should route the call from a mobile phone to the Windows App. So the operator can talk and use the App at the same time. [VoIP]
* Options to deploy Ambulance, Police, Firefighters etc.
* Login info to gain access as a 911 responder

**SQL Database & Web API service**

* Store important information of the user based in the user’s phone number
  + Name
  + Date of Birth
  + Blood Type
  + Medical History
  + Age
  + Gender
* Some kind of API which as capable to connect to the Android device, receive its location and send it to the 911 operator’s Windows application.

**Android App**

* Should be basic and user friendly, so users at any age can use it.
* Large and clear button to dial 911
* Should be able to find the user’s location and send it to the Web API
* Option to add information like Name, DOB, Blood Type, Medical History…
* SMS verification code to verify user’s phone number during setup. [So we know the user calling is not a robot/scam]
* Grant access of the mobile features to the app. E.g. Access to location and the dialer.
* Implement material design but should be quick and responsive, as the app should not waste any time calling 911.
* The app should automatically set the brightness to high [to prevent accidental calls] and place the call on the highest volume or on speaker.

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