Matthew Alexander – Project Portfolio

PROJECT: Police Records System

Overview

The Addressbook is morphed to a police records database with two types of users, Police Officers (PO) & Headquarter Personnel (HQP). Users have their own access levels with HQP having higher authorization compared to PO. Police officers can screen civilians during duty with their respective NRIC, their criminal history and status would be shown to the police officers. POs can also request for backup when needed, HQP would dispatch other POs at their discretion based on estimated time of arrival. Refer to Quick Start guide to get started.

Summary

- **Role:** Developer
- **Responsibilities:** Integration
- **Major enhancements:**
    - **Edit Command**
        - What it does: Allows HQP to update a civilian's postal code, offense list, wanted status.
        - Justification: Individual data in Police Records System would need to be updated as people change addresses, commit crimes, serve their sentence.
        - Highlights: Due to each NRIC being assigned to a specific individual for their whole lives, they cannot be changed.
    - **Request Command**
        - What it does: Allows PO to request backup to HQP's inbox. HQP would then be able to view request messages with the PO's id, case, urgency and his/her location.
        - Justification: POs may not be able to handle a case alone especially when it involves multiple criminals or dangerous scenarios. He/she would then need backup to take handle the scenario.
        - Highlights: HQP can view the requests with most urgent based on case.
    - **Dispatch Command**
        - **What it does**: Allows HQP to dispatch backup according to the dispatchers' requests. HQP can dispatch other 'free' POs to help the POs who requested for backup. PO who requested backup is then given a return message with ETA & Google Maps URL to pinpoint the location of

the backup personnel. For PO who is being dispatched, he also given an ETA & Google Maps URL to pinpoint the requester.

- **Justification**: After POs request backup, HQP should be able to dispatch backup to help them in their case. Hence, location of the requester and backup officer along with ETA are crucial. Location is important, so backup officer knows where to travel to & ETA is crucial so that the requester knows how much time he/she needs to hold off the suspects on his own before backup arrives.
- **Highlights:** ETA is real time with Google Maps Distance API. Location is displayed in a Google Maps URL to allow PO to navigate.

- **Minor enhancements:**
  - Able to delete a person from a record without listing beforehand
- **Code contributed:** [Functional code] [Test code]
- **Other contributions:**
  - Project management:
    - Guided team for proper coding standards and practices
    - Refactored teammates code
  - Community:
    - PRs reviewed (with non-trivial review comments): #140, #94, #93, #66, #44, #25
  - Tools:
    - Integrated a third-party REST API (Google Maps API) to the project
    - Integrated a third-party library (HttpClient Apache) to the project as a Http Client to communicate with Google Maps REST API
    - Integrated a third-party library (Commons IO) to convert buffer data into String
    - Integrated a third-party library (JSON Org) to parse Google Maps API data

Contributions to the User Guide

For the **User Guide,** I added the commands that were relevant for me which included **Edit Command, Request Command & Dispatch Command.**

Contributions to the Developer Guide

For the Developer Guide, I added the commands that were relevant for me which included **Edit Command, Request Command & Dispatch Command.**