

Capstone Project Testing

Introduction

1. Target Audience: the target audience for this project is municipal law enforcement, particularly watch officers who monitor electronic dashboards, internal computer systems, receiving and processing alerts and log data.

The target audience has a moderate-to-high comfort level with technology due to working on the watch floor of a police station where they regularly utilize information technology systems, receive and interpret digital data and reports.
2. Changes to initial objectives/approach/solution/deliverables: the changes to initial approach include utilizing containerized services for the web application, instead of running stand-alone services. This allows to minimize setup and start time of the web application, while using a dedicated Docker container for each service.

The changes to deliverables constituted adding additional functionality to run analysis of accuracy of predictions performed through PyTorch LSTM. This accuracy analysis feature allows users to see the accuracy of the last made geographical location prediction provided in feet for each tracked object.
3. The prototype has been reviewed by law enforcement officers at the Los Angeles Police Department (LAPD) Central Division Station. The officers' first names are Griselda and Lissa. Lissa is a specially designated officer assigned to DART (Domestic Abuse Response Team). Griselda is a watch command officer.

4. What are the main tasks you would like your client to be able to complete while testing? The main tasks sought to be accomplished during testing include: for users to be able to view the map and location of a tracked object (tracked individual) in real time, for users to be able to view the alert when a tracked object crossed or was flagged as about to cross into the restricted geofence zone (i.e. individual in the zone restricted by a protective order), for users to be able to view a list of tracked objects (individuals) and view associated threat level, and for users to be able to view reports on each object history.

Client-based testing

Testing was conducted on site at Los Angeles Police Department (LAPD) Central Division Station. The feedback received from testing was positive, with many follow up questions from the reviewers, such as asking for ideas on how the integration of existing LAPD alert codes and dispatch call types could be possibly implemented within the application. The testers were interested in the alert and location tracking capabilities of the application. The testers were able to complete all the intended tasks while reviewing the prototype. The testers did not get stuck during the testing process, verbal guidance was provided. Prior to the testing, the audience was introduced to the Bill “SB 871” filed in California State legislature in March 2026, which includes Section 6329 that stipulates “a violation of court-ordered geographic exclusion zones or proximity restrictions shall be immediately transmitted to local law enforcement”, among other measures.

In the remaining timeframe, the improvement of the project will include finalizing the side menu options for report types, testing the full app setup using Docker containers in the cloud-based server and making adjustments to the UI design. The long-term improvements include plans to add the ability to send notifications to notify a designated list of recipients via a mobile application or text message.