CPSC 304 Project Cover Page

Milestone #: ___1____

Date: ____Oct 6, 2023_____

Group Number: ___10_____

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

Project Description

What is the domain of the application?
The domain of the application is public safety as it relates to publicly reported complaints or incidents. The scope of the project is restricted to complaints and incidents made by the general public, so any incident where someone called 911 or made a complaint online to a municipal department's website (e.g. police department, fire department, etc.). The project will also do basic assignment of incidents to first responders and manage the resources related to those incidents. With that being said, the incidents will be restricted to physical incidents, and does not include virtual incidents (such as crypto scams and cyberbullying).

What aspects of the domain are modeled by the database?
Our project primarily focuses on storing information on each incident/complaint reported by someone. The general public will be able to submit their own complaints to the system, while first responders and other employees will be able to view and assign people to handle incidents. We will be able to keep track of concrete information on the incident, such as location and time, as well as more specific details, such as who the reporter and responders to the incident were. We will implement an IsA relationship for people involved in the incident, other than the reporter of the incident and first responders. We also have a weak entity for equipment which belongs to a department, which may be used to aid in fighting this incident. That said, we have restricted the incidents to in-person incidents which could happen in real time.

Database Specification

What functionality will the database provide?
The primary function of the database is to keep track of reported incidents/complaints by citizens of the city. This is a resource for people reporting incidents, responders to the incidents, as well as the general public. The database administrators are first responders and their associated departments, likely working for the municipality. Each incident report/complaint will be recorded in the database itself, regardless of whether or not it has been resolved yet.

The database itself will have different external views depending on who you are. For example, the general public would not be able to see confidential information regarding the incident reporters, whereas the administrators would have full access to the information regarding each incident. This will be implemented using a login feature where you can login as an administrator or as a guest, where the biggest difference is that an administrator can add to the database of reported incidents. An example query for a member of the general public trying to find all incidents at one location would return all the incidents, but only information on the responders and the department they work for, but nothing regarding the person reporting the incident.

Application Platform

What database will your project use and what is your expected technology stack?
We will use the UBC-provided OracleDB as our DBMS. This will save us time and is directly applicable from the material we learn in class. We will be using JavaScript with Node.js, Express and OracleDB (one of the suggested platforms). We all have some degree of familiarity with JavaScript libraries for creating web applications, so this should not be too challenging for us to approach as a group.

ER Diagram