

# CaseX Users Database & Victim, Address, Suspect Entities

## Detailed Database Design Document

### 2.1 Project Description

This preliminary database design document provides the details of the development of the User Database and the Victim, Address, and Suspect entities of the Case Database for CaseX. CaseX is an open source web application and database optimized for the management of physical data. This system is uniquely customized as a data management solution for the Los Angeles Police Department Homicide Library Unit, however it can be used for any enterprise seeking physical data management.

The CaseX system architecture is comprised of a web browser-based user interface (front-end), a server (backend), and MongoDB as the database. The frontend consists of various webpages which allows users to accomplish the three main functions of CaseX. The server backend and database will be designed to allow for concurrent access, efficient query, and data validation.

The full database for CaseX consists of the User Database and the Case Database. The Case entity of the Case Database will be implemented by Eileen Choe and Allen Vartanian, and is outlined in their preliminary database design document. To evenly distribute workload, the User Database as well as the Victim, Address, and Suspect entities of the Case Database will be outlined in this database design document.

### 2.2 Data Dictionary

The data that will be stored in the User Database will be the data that is related to each user: the user's ID number, the full name of the user, the level of access that user is permitted, the user's employee ID number, the dates that the user registered, and the dates that the user last read or modified the data.

We will also be developing the Victim, Suspect, and Address entities of the Case Database. The Victim entity will be all the data that is related to each victim: the victims' names, the sex and ages of the victims, the description of the victims, and the victims' supervised release statuses. The Suspect entity will include all the data that is related to each suspect: the suspects' names, the sex and ages of the suspects, the description of the suspects, and the suspects' supervised release statuses. The Address entity comprises of the data in which the incident occurred: the street number, the street name, the city, and the zip code.

## User Database

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| Attribute name     | Data type   | Can be NULL | Can be multivalued |
|--------------------|---|-------------|--------------------|
| User ID            | Integer   | No          | No                 |
| First name         | String  | No          | No                 |
| Middle name        | String  | Yes         | No                 |
| Last name          | String  | No          | No                 |
| Permission level   | Enumerator (read-only, input-read, administrator) | No          | No                 |
| Employee ID        | Integer   | Yes         | No                 |
| Last time read     | Date  | No          | No                 |
| Last time modified | Date  | No          | No                 |
| Registration date  | Date  | No          | No                 |

## Victim Entity

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| Attribute name                   | Data type   | Can be NULL | Can be multivalued |
|----------------------------------|---|-------------|--------------------|
| Victim Name                      | String  | No          | No                 |
| Victim Sex                       | Enumerator (Male, Female, Transgender, Other, Unknown)                            | No          | No                 |
| Victim Age                       | Integer   | No          | No                 |
| Victim Description               | String  | No          | No                 |
| Victim supervised release status | Enumerator (parole, probation, juvenile probation, outstanding unrelated warrant) | No          | Yes                |

### Suspect Entity \_\_\_\_\_

| Attribute name             | Data type   | Can be NULL | Can be multivalued |
|----------------------------|---|-------------|--------------------|
| Suspect Name               | String  | No          | No                 |
| Suspect Age                | Integer   | No          | No                 |
| Supervised release status  | Enumerator (parole, probation, juvenile probation, outstanding unrelated warrant) | No          | Yes                |
| Juvenile tried as an adult | Boolean   | Yes         | No                 |

### Address Entity \_\_\_\_\_

| Attribute name | Data type | Can be NULL | Can be multivalued |
|----------------|-----------|-------------|--------------------|
| Street Number  | Integer   | No          | No                 |
| Street Name    | String    | No          | No                 |
| City           | String    | No          | No                 |
| Zip Code       | Integer   | No          | No                 |

## 2.3 Finalized Entity-Relationship Diagram

