

CSCI 335 – Database Project (20%)

Crime Reporting System

The objective of the project “Crime Reporting System” is to provide a facility for the residents and police to report and respond to crimes reported. For that reason, the database should be composed of following information:

- **Residents** are identified by Social Security Number, and has a full name (first, middle and last), contact number, address (city, street and apartment), gender and date of birth.
- Residents can **report** a crime happening around to the police station.
- A **Crime Report** is identified by an ID, the date and time of witness, the location (city, street, apartment), description, Set of Images Captured, status and the policeman who **received** the report.
- **Crimes** are **categorized** by categories and have a degree of affection. Each **category** has a code and name.
- **Policemen** are identified by their Social Security Number, and has a full name (first, middle and last), contact number, and address (city, street and apartment), joining date and salary.
- After receiving a crime report the police station has to **perform** **one or more response actions**. Each response is defined by name, target, description, date and time of action, status and the **policeman responsible of it**.

You can add any assumption and suggestion if needed.

Steps to be done

Step 1: Data Modeling - Create an ER diagram,

Step 2: Map ER diagram into a relational model,

Later: Step 3: Put the tables in the 3rd normal form,

Step 4: Create your tables and fill them with few records of logical data,

Step 5: SQL Queries (mentioned Below),

Step 6: Five Complex SQL Queries: Write additional five complex queries (such as intersection, union, difference, join aggregate, ...etc.) you find useful for your application. Avoid using simple and easy queries.

SQL Queries

- Insert a new Category having the following info: code is **PUBLIC**, name is **Social Security Threat**
- Update the name of the policeman whose ssn is 112233.
- List the names of residents in Beirut City.
- List the name of policemen who joined after 1/1/2021 ordered alphabetically.
- List the ID and status of the crimes reported to the Policeman named "John Smith".
- List the number of pending crimes.
- The ID of crimes that were reported to "John Smith" or had an action done by "John Smith".
- The total number of crimes in each city.
- The name of residents who have reported more than two crimes.
- The number of responses for each crime witnessed today.
- The number of crimes in each category
- The ID of crimes