

CS480 – Course project

Summer
2020

Database: State corruption

Description:

The database contains the reports of alleged and confirmed entities engaged in state corruption. Each report will have a unique ID and the data about the entity and its engagement in the corruption; each will contain detailed actions, dates, locations and names of all the people involved in the allegation as well as the state of the investigation (concluded guilty, inconclusive, ongoing etc..). The database contains four tables, state, person, crime and conviction. The state table includes the zip code, city and the department the alleged crime is being reported about. The state is related to the person table which contains the SSN, name, age, occupation and the role in the crime. The person table is involved in the crime table, which has an ID for every crime, the type of crime, evidence, date, location and a description. Finally, we have the conviction table which takes the foreign keys SSN and ID, has its own CID as a crime id and stores information about the status of the case and the verdict.

Project Part 2 – CRUD (Create, read, update, and delete)

Deadline: July 18, 2020

List of entities:

1. Person
2. Crime
3. Conviction

Based on the Demo (Part 1), implement the following functionality using Java and SQL with necessary GUI interfaces.

1. Insert/delete/update/read a **person**
2. Insert/delete/update/read a **crime** (except the ID, the ID is created automatically by the system)
3. Insert/delete/update/read a **conviction** (except the CID, the CID is created by the system, automatically)

Project Part 3 – Queries

Deadline: August 1, 2020

Based on the Demo, implement the following functionality using Java and SQL with necessary GUI interfaces.

Simple Queries:

1. Display the number of conviction grouped by result
2. Find all crime IDs and the type of crime they represent
3. Find all people who had a role of bribe

Non-trivial Queries:

1. List all the convicted people
2. Show all people involved in corruption
3. List all convicted individuals of a specific age range
4. List all people convicted by a specific case status
5. List all people of a specific role for every crime