University of British Columbia, Department of Computer Science

CPSC 304

2016 Winter Term 1

Project Part III

Group Name:

The Dempster Cartel

Group Members:

Name	Student Number	Unix ID
Terry Lin	14558143	h3b0b
Essence Lai	29579133	h7x9a
Stephanie Knill	54882113	k0g0b

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 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

The domain that our group modeled was the drug cartel domain, inspired by the popular Netflix show, Narcos: a mockumentry about Pablo Escobar's Medellin Cartel. Specifically we modelled the kind of information that is generally stored about the cocaine drug trade.

The aspects of the drug trade that we modeled was the information relevant to the various transactions and interactions between drug lords, dealers, suppliers and addicts. This included things like transaction records between suppliers and drug lords (SupplyTransaction), transaction records between dealers and addicts (DistributionTransaction), and ratings of dealers by addicts.

There are 3 classes of users for our database: druglords, dealers and addicts. A druglord provide cocaine to his dealers and his dealers give money back in return. Druglords also deal with suppliers directly for cocaine supply. A drug lord can have no suppliers, dealers, and does not oversee any deals (not a very efficient drug lord but it is allowed). Druglords can add themselves and others to the database. Dealers sell cocaine to the addicts and reports to their corresponding drug lord regarding the status (i.e. money and drugs) of the territory. Dealers (and druglords) can add/remove addicts from the database as needed. Every dealer must report to a single druglord and can only belong to one single territory. Dealers can update and remove addicts (perhaps because they have not been paying off their tab).

Drug lords know everything about the supply transactions and distribution transactions, whereas the dealers only know about distribution transactions. Both types of transaction must involve a drug lord. More specifically, supply transaction is a record of the supply deal between a drug lord and a supplier. Distribution transaction is a record of the day-to-day deal between a dealer and an addict that is overseen by a drug lord.

Changes to our final schema

- We added three more tables to our schema: AddictUser, DealerUser, DruglordUser. We did this so we can have the users sign in functionality. It also made sense to connect the user tables to their corresponding personnel tables so when a user signs in, the user is signed is as that personnel as well. This is particularly helpful for functionalities like searching because users should not be able to search by personnel IDs (IDs should be hidden from the user's perspective) and usernames are a good alternative unique identifier.

- We added an additional functionality which is that an addict can give ratings to dealers. Thus, dealers now have an additional column for ratings.

- We have also changed our definition of what "cash" means for an addict. Previously it meant how much money addicts have. Now, it represents a tab that the addict owes to the dealer. We made this change because we felt it wasn't realistic that dealers and druglords would know exactly how much money addicts have at any given time. They would only know how much money the addicts currently owe them.