Department of Computer Science

CSI481 - Assignment Part 2

Logical Modeling and Application Programs (individual assignment)

(Due Friday 27 October 2023)

The purpose of the exercise is to design and build a relational database together with some application programs that interact with the database. It hopefully will complement the lectures by providing practical experience.

Using the conceptual model from the first part of the assignment (provided) do the following:

Logical Design

Translate the UML design into a logical schema for implementation in a Relational DBMS such as MySQL or ORACLE (or any other available DBMS that you find suitable for such an application). You will need to consider the storage parameters offered by that particular to create a database. You also need to detail the attributes for each entity and specify their types.

Application programs

Use Java to produce application programs that interact with the database to perform the following tasks:

1. Add a new policy holder.
2. List the last names of policy holders and the policies they have, together with their details, e.g. insurance products in that policy, reinsurers, broker who sold the policy, etc.
3. Given a claim number or a policy holder, determine the policies related to the claim/holder.
4. Add a new product.

You will be given credit for design and code that ensures integrity of the database is preserved. Program tests will include both legal and illegal data.

Submission

Submit the logical model as a pdf file, *logical.pdf* with your full name and ID No. The database system will be marked through demonstrations.