Project Proposal

Project Description

The domain that we're going to model is train tickets purchasing, which means we are going to deal with the data related to train tickets.

The aspects of the train tickets we will be modelling will be about the passengers and the tickets of trains. This includes many things about the passengers and train tickets, such as a given passenger's specific information (e.g., passenger's name, address, age, and a unique id), information about tickets that the given passenger has (e.g., tickets price, payment information, seat number, purchase time and information about the owner), and trip information (train number, arrival/departure time, duration of the trip and station number). There will be different classes of seats and different train rides to choose from. The database will also model the stations along different train rides to deal with transit and seat arrangement needs.

Database Specification

There will be two different classes of users of the system: the passengers, and the staffs of the train company. The passengers are able to purchase train tickets either online or at the ticket windows and choose seats. They can also cancel the reservation with some constraints and be able to select the class of the tickets like economy or business. The passengers have access to view the information of trains provided as well. The train tickets have different discounts towards certain passengers like students and the senior. Passengers can manage their trips conveniently, like change their tickets or seats. They can also update their personal information. The staffs of the train have access to both the passengers' data and themselves'. Only some certain staffs can change the arrival/departure time and arrival/departure station of a specific train. The passenger will be notified when a trip is modified. Other advanced functionalities including frequent-traveller program, which the traveller will earn points upon travelling and use points to redeem tickets.

Application Platform

This project will be done using the UBC CPSC department's Oracle database system. The database would be created and controlled mainly using MySQL database language. To build a User Interface (UI), HTML, PHP and CSS will be employed.