

## Milestone 1 - Project Proposal - Group 86

Jennifer Chan

Victor Cheng

XinYue Wang

The domain that we are going to model is a food delivery app, and we will focus on users of this food delivery app. There will be three different classes of users of the system: the customers, the restaurants, and the drivers. The database will be used to store and easily access information about the customers, drivers, and restaurants that use the app. Our group discussed our choice of application domain with the TA, and she approved it. It follows that our application domain should be suitable as a CPSC 304 project.

Customers will be able to place orders, buy gift cards, and use coupons. Only one coupon can be used per order, and a coupon can be used by a customer only once. As for gift cards, only one gift card can be applied to an order at a time, but a gift card may be used for multiple orders if its balance permits it. A gift card can only be used by one customer; that is, the balance of a gift card cannot be transferred to another customer. Customers will be able to update their personal information, like their address, name, and phone number. They will also be able to top up their account balance using any valid payment method. As customers continue to place orders, they will gain reward points; with enough reward points, they will upgrade their reward tier.

Drivers will be able to access information about an order, such as the delivery address, restaurant address, and the name and phone number of the customer who placed the order. Drivers can also register one or more vehicles into the app, including information like vehicle ID and vehicle type (motorcycle, car, bicycle, etc.). Drivers are not required to own a vehicle (they may deliver their orders by walking).

Restaurants will be able to access information about orders that are placed for their restaurant, such as the list of menu items ordered and the order number. A restaurant can receive anywhere from zero to multiple orders, but an order must be associated with one restaurant. Once the restaurant is finished preparing an order, they will hand that order off to a driver who will deliver the order to the specified delivery address. A driver may deliver zero to multiple orders, but an order must be delivered by a driver (no pickup option available).

The database will also contain information about each restaurant's menu. A menu contains the list of food items offered by the restaurant, along with their prices. The food items in the menu are divided into categories such as 'Breakfast', 'Sides', and 'Beverages,' and those categories are disjoint and they cover all the items on the menu. Each menu belongs to one restaurant, and a restaurant may have many menus (a one-to-many relationship). In addition, the menu is a weak entity that depends on the restaurant.

This project will be done using the CPSC department's Oracle database system, using Java and JDBC. We do not anticipate using any special software or hardware.