Ryerson University

Department of Electrical, Computer, & Biomedical Engineering
Faculty of Engineering & Architectural Science

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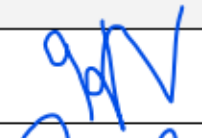
Vo	Hoang	500976404	9	
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Grocery Store DBMS

Grocery stores can easily be classified as one of the most essential places to visit since it provides the local population access to food and materials in a quick and convenient manner. With the rapid modernization of technology it is only natural that Grocery stores would follow suit. Today the average consumer has the option of using different payment options such as credit/debit, cash and reward points given to a registered customer, in addition to the numerous delivery options the consumer can select.

The first entity of the database will be **customers**. Each **registered customer** would be required to provide their name, address as well as an email address and phone number in order to make an online purchase and choose delivery options. Doing this will give registered customers access to the reward system, in which customers earn points and rewards through in-store and online purchases; **non-registered customers** will not have access to this feature; sensitive information will not be displayed once the transaction is done.

A grocery store will have an active **manager, supervisors as well as employees; each person working will be assigned an employee number, job description, weekly schedule and pay. Information such as the person's name, address and SIN will be filled out by the employee.** The manager's pay is based on a salary whilst a supervisor and employee is time dependent; the manager will be able to access and modify these values accordingly.

As for the items within the grocery store, each of the items will be **categorized with respect to the item's nature** and will be assigned a **unique name and product id, quantity, weight, availability and price.** These values can be modified by the employees responsible for ordering items from different manufacturers; the quantity will depend on how much of one item is being taken out and put back into stock.

The final entity in the database will be **Transactions**. Keeping a record of transactions is important for returns/refunds and for income reporting and tax purposes. The attributes of a transaction will include the **type of transaction**, the **subtotal**, the **taxes,** the **total**, and the **rewards points** earned. None of these attributes will be able to be changed by any managers, supervisors, or employees. The transactions are not able to be deleted either. However, all employees will have the ability to reverse a transaction.