

## **COE 528 Final Project Report**

### **Description of Use-Case**

- Entry Condition
- Special Requirements
- Exit Conditions
- Exceptions
- Name of Use-Case
- Actors
- Flow of Events

### **Use Case Example: Buying a book through the redeeming points feature**

The customer would be the actor that would be participating in this use case example. The owner would not be a participating actor in this use case example as the owner can not purchase books.

### **Entry Conditions**

The entry condition for the customer to buy and redeem a book through points, would firstly be to be logged in to the bookstore through the GUI. Then the customer would have the ability to buy a book through the redeem points feature.

### **Flow of Events**

Firstly, the owner must register the customer and then the customer has the ability to login and purchase books through the bookstore application. Additionally, the owner would login to the bookstore application and would select the customer option in the user interface, now the owner can add the customer so that the customer can login to the bookstore application. Subsequently to the event of the owner adding the customer's username and password to the bookstore application, it is confirmed that the customer is now registered. The customer now has the ability to log in and choose books to redeem points and buy.

### **Exit Conditions**

The exit condition for this use example would be the screen for checkout and logging out. To complete this step, the customer must reach the checkout screen and select the button to log out. When logging out the customer would be taken to the login screen of the book store application and prompted to put their credentials to login to use the bookstore application. Furthermore, the functionality for the checkout screen is to prompt the customer of the bookstore application of their transaction cost, points, logout, points after the purchase and the status of the customer when the purchase is completed.

## **Exceptions**

An exception from the use case of buying a book through redeeming points would be in the case of the owner putting negative values in the customer's points and this would occur manually.

## **Special Requirements**

In the event of the book being purchased by the customer, this would reflect in the book inventory that is available for other customers to purchase as the respective book that has been purchased by the customer will not show in the inventory. This occurs as there are no multiple copies of each book.

## **State Design Pattern**

For the statuses of the customer in respect to their points, it has been labeled with gold and silver.