

**<Team C#>**  
**<Self-Checkout> Written**  
**Requirements**

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***Revision History***

| <b>Authors</b>    | <b>Description of Change</b>                | <b>Sections</b> | <b>Rev</b> | <b>Date</b> |
|-------------------|---|-----------------|------------|-------------|
| Yousef<br>Roushdy | Initial Content                             | All             | 1.0        | 03/7        |
| Momtaz<br>Afredi  | Added content                               | All             | 1.1        | 03/14       |
| Momtaz<br>Afredi  | Modified requirements for each user         | 3.1.1-3.1.<br>3 | 1.2        | 04/01       |
| Marek<br>Sautter  | Updated Requirements to Fit Current Project | All             | 2.0        | 04/04       |

## 1 Team Description

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## 2 Terminology

The following table defined terms used within this document.

<define key terms used in your document that would not be commonly understood. Any terminology that is key to your system should be defined here. Any term you invented or that have special meaning within the context of your system should be defined here. Remove this blurb before completing document.>

| Term         | Definition   |
|--------------|--|
| Virtual-Cart | The cart that holds your items to calculate totals   |
| Item ID      | Unique identifier for an item in the inventory   |
| InvView      | User menu that presents the inventory of the store, broken down into categories. Note: Only shows item and price |
| InvSearch    | User menu that presents a searchable inventory of the store. Note: Only shows item and price                     |
|              |  |
|              |  |

## 3 Self-Checkout

### 3.1 Overview

*The Self Checkout System allows users to add items to the virtual cart for purchasing.*

#### 3.1.1 Description

*The Self Checkout Program will start by presenting the user with a start button that the user can click to begin adding items to their cart. On the left the user will be presented with an InvView and on the right their Virtual Cart. The cart will start empty but as they double click on items in InvView, they will automatically be added to the cart visually. As the user adds items to the cart, a running total box below the cart will update with the total of items about to be purchased.*

*At the customer level, the only options available on the screen are to add an item to the cart, call an assistant, and checkout. If a user presses Checkout with no items in the cart they will be prompted to add items with a notification. If a user wishes to remove an item from their cart they need to call an assistant by clicking the "HELP" button in the top right corner. The employee will then be prompted to enter their password or passcode on the same system and this will allow them to remove items from their cart. After the items have been removed, the employee reverts control back to the user.*

*While the user is able to interact with the machine and the employee is able to assist. The manager, on another system, is able to view changes to the inventory (whenever an item is checked out). Only the manager is able to add an item to the inventory by opening the inventory.txt file and adding values to the end of the line as follows:*

*<string>ItemName,<string>ItemType,<int>ItemId,<int>ItemQuantity,<Double>ItemPrice  
Unpasteurized Milk,DAIRY,1009,50,0.99*

### 3.1.2 <User>

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#### 3.1.2.1 <Add item to virtual cart>

The user will be able to add their item into the virtual cart in order to proceed to checkout.

Item will be put into virtual cart, **if** and **when**:

- User double clicks item in InvView or searches for item in InvSearch and double clicks it
- The item is still available in the inventory

#### 3.1.2.2 <Checkout>

Total up the price of all items and allow user to “checkout”. This will also deduct the items from the stores overall inventory.

Checkout from virtual cart will occur **if** and **when**:

- The virtual cart contains at least one item

#### 3.1.2.3 <Call for Assistance>

User can call for employee help in order to remove an unwanted item from the virtual cart.

An employee is alerted, **if** and **when**:

- The user calls employee for help

### 3.1.2 <Employee>

#### 3.1.2.1 <Remove and Item>

Employee can remove an item from the virtual cart. Employee must enter a password in a dialog box in order to remove items

An item will be removed from the virtual cart, **if** and **when**:

- The user calls employee for help
- The Virtual Cart has at least one item
- The employee enters correct password

### 3.1.3 <Manager>

Manager must first login **before** any action shall take place.

Manager will be logged into a separate computer that has access to the files the Self Checkout System produces.

#### 3.1.3.1 <Update Inventory>

Manager will be able to update inventory (update individual items quantity and price as well as add new items or remove existing items).

Item will be added into inventory, **if** and **when**:

- The new item's id and name do not conflict with any item already existing in the inventory.

- The new item's format is the same as others (see example above)

Item will be removed from inventory, **when**:

- An item is selected for removal

Update item in inventory will happen, **if** and **when**:

- The existing item's format is the same as others (see example above)

#### 3.1.3.2 <View Inventory>

Manager will be presented with a command line interface that shows the current inventory after each transaction is made.

#### 3.1.3.2 <View Purchases>

Manager will be presented with a command line interface that shows each transaction made.