# Team C#

**Self-Checkout**

**Written Requirements**

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***Revision History***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Authors** | **Description of Change** | **Sections** | **Rev** | **Date** |
| Yousef Roushdy | Initial Content | All | 1.0 | 03/7 |
| Momtaz Afredi | Added content | All | 1.1 | 03/14 |
| Momtaz Afredi | Modified requirements for each user | 3.1.1-3.1.3 | 1.2 | 04/01 |
| Marek  Sautter | Updated Requirements to Fit Current Project | All | 2.0 | 04/04 |
| S. Graham | Rewrite | All |  | 04/13 |
| Jeffrey Iacob | Added RID-015 & Fixed layout | 3 | 2.1 | 04/17 |

## 1 Team Description

|  |  |
| --- | --- |
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**2 Terminology**

The following table defined terms used within this 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 |

## Self-Checkout

* 1. **Overview**

#### The Self-Checkout System implements a virtual checkout system which allows for sale of items. Three users of the system are defined: Manager, Employee and Customer. The store owner manages inventory, while the customer adds items to the virtual cart for purchasing.

* + 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 the Inventory Display Panel (InvView) and on the right their Virtual Cart. The cart will start empty. As the customer selects items in InvView, they will be displayed in the Virtual Cart. A running total box below the cart will update with the total of items about to be purchased.

The Customer will be presented with three possible actions: add an item to the cart, checkout and call for assistance. As a security measure, the customer cannot remove items from the virtual cart without assistance from a store employee. The store employee is required to enter an id and password before removing items. The Employee has the capability to remove items from the customers cart after entering their id and password.

#### 

#### The Store Owner manages inventory by editing the inventory file.

* + 1. **Display**

Purchasable inventory items **shall** be displayed in the InvView. RID-001

If an inventory items **shall** be considered purchasable when the corresponding inventory count is greater than zero. RID-002

Purchased items **shall** be displayed in the Virtual Cart. RID-003

When the customer selects an item for purchase, the following actions are taken:

The item **shall** be added to the Virtual Cart RID-004

The corresponding count of the selected item **shall** be decremented. RID-005

The running total **shall** be updated. RID-006

* + - 1. Checkout

The Checkout button **shall** be displayed when one or more items are in the virtual cart. RID-007

When the Checkout button is selected, the following actions are taken:

Purchase order with a description of the items **shall** be sent to the Store Owner. RID-008

Virtual cart **shall** be emptied. RID-009

Running total **shall** be set to zero. RID-010

* + - 1. Call for Assistance

The “Call for Assistance” button **shall** be displayed when one or more items are in the virtual cart. RID-011

When the “Call For Assistance” button is selected a pop-up window for the employees id and password **shall** be displayed. RID-012

When the correct user name and password are entered, the Virtual Cart **shall** display a delete button for each item. RID-013

When the delete button for an item is selected, the following actions shall be taken:

The item **shall** be removed from the Virtual Cart. RID-014

The total **shall** be updated after removal of item/items. RID-015

The item count in inventory **shall** be incremented. RID-016

The employee **shall** have the capability to log out following log in. RID-017

### Manager

Manager **shall** have a unique login different from the employee’s login. RID-018

Manager **shall** be capable of logging into a separate computer that has access to the files the Self-Checkout System produces. RID-019

### 3.1.3.1 Update Inventory

Manager **shall** be able to update inventory (update count and price as well as add new items or remove existing items). RID-020

The inventory management file **shall** have any number of the following entries: RID-021

#### <string>ItemName,<string>ItemType,<int>ItemId,<int>ItemCount,<Double>ItemPrice

For example, Unpasteurized Milk, DAIRY, 1009, 50, 0.99

If the manager updates items while the system is running, the updated inventory **shall** be displayed upon reset of the system. RID-022

If an item has a count of zero, the item **shall** be accepted, but not displayed. RID-023

If an ItemId appears twice in the inventory file, the following actions are taken:

The system **shall** accept the first entry. RID-024

The system **shall** reject the second entry. RID-025

The manager **shall** be notified. RID-026

### 3.1.3.2 View Inventory

### Manager shall be presented with a command line interface that shows the current inventory after each transaction is made. RID-027

### 3.1.3.3 View Purchases

### Manager shall be presented with a command line interface that shows each transaction made. RID-028