# SOFTWARE REQUIREMENTS SPECIFICATION

## for

## Whole Knockoffs Grocery Store

## March 30, 2020

# Contents

# 1 Introduction

## 1.1 Purpose

This document provides detailed requirements about the product our team is creating for the customer. This document is intended for the customers and the software team designing as a reference on the desired behaviors and requirements of the program.

## 1.2 Scope

The Whole Knockoff Grocery Store (WKGS) program is intended to be a system to allow the Whole Knockoff grocery store to manage employees, track inventory, sell groceries online (using both delivery and in-store pickup), and give discounts to loyal shoppers. The WKGS website will allow customers to quickly see what is available to purchase at the grocery store using a storefront. The customer can select items that they wish to purchase for delivery or in-store pickup. After adding groceries to their virtual shopping cart, the customer can select if they would like the groceries delivered or available for in-store pickup. The customer can then purchase these groceries through the online portal. The website will also act as an employee hub where employees can be assigned work schedules and hours worked can be tracked. The system should also handle the inventory management for the entire store. The inventory should be able to communicate with the store's point of sale systems and website so that correct inventory is maintained when items are purchased. This will allow the store owners to know what items are in-stock and which items might need to be re-ordered.

## 1.3 Definitions, acronyms, and abbreviations

*WKGS*: Whole Knockoff Grocery Store
*POS*: Point of Sale system - Cash registers that are used to scan and sell groceries in-store

## 1.4 References

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Do we need this?

## 1.5 Overview

In section 2, the product will be given an overall description. Section 3 will describe in detail each of the features and their corresponding requirements.

# 2 Overall Description

The Whole Knockoffs grocery store will provide customers and employees alike a painless shopping and grocery store experience. Employees will be met with a seamless delivery and pickup process/system that eliminates the need for coordination among activities and employees. Customers will benefit similarly from the seamless intersection between item selection and delivery, making their shopping experience the easiest part of every customer's day.

Shoppers are will be met with an easy, convenient, user friendly item selection interface from the webpage. Coupling a simple, easy to use item selection interface with shopping cart and wish list capabilities our customer's customers will find the process from shopping list to checkout convenient and simplistic. In addition to the Whole Knockoff's online shopping experience there will be in store self-checkout options and traditional checkout procedures. All items, whether purchased through the web interface or in-store, will be cataloged and will belong to a catalog of items in the database so that store operators can more easily keep track of merchandise needs and the quantities of all items stocked by the store.

## 2.1 Product Perspective

This subsection of the SRS should put the product into perspective with other related products. If the product is independent and totally self-contained, it should be so stated here. If the SRS defines a product that is a component of a larger system, as frequently occurs, then this subsection should relate the requirements of that larger system to functionality of the software and should identify interfaces between that system and the software.A block diagram showing the major components of the larger system, interconnections, and external inter-faces can be helpful. This subsection should also describe how the software operates inside various constraints. For example,these constraints could includea)System interfaces;

b)User interfaces;
c)Hardware interfaces;
d)Software interfaces;
e)Communications interfaces;
f)Memory;
g)Operations;
h)Site adaptation requirements.

< The system is not expected to interface with any other systems outside the store webpage. The employee interface and customer facing portion of the webpage will be seperate but interface together on the same application. Although the webpage is standalone and will not or is not currently expected to be able to manage the needs of multiple stores but may be a necessary requirement for the future of the Whole Knockoffs brand expansion. >

## 2.2 Product Functions

This subsection of the SRS should provide a summary of the major functions that the software will perform.For example, an SRS for an accounting program may use this part to address customer account maintenance,customer statement, and invoice preparation without mentioning the vast amount of detail that each of those functions requires. Sometimes the function summary that is necessary for this part can be taken directly from the section of the higher-level specification (if one exists) that allocates particular functions to the software product. Note that for the sake of clarity

a)The functions should be organized in a way that makes the list of functions understandable to the customer or to anyone else reading the document for the first time.

b)Textual or graphical methods can be used to show the different functions and their relationships.Such a diagram is not intended to show a design of a product, but simply shows the logical relation-ships among variables.

<

- Shopping list creation - the shopping list creation tools will allow customers to build/fill their shopping carts with all of the items the desire to purchase and store the information for later purchase through the webpage or to take the shopping cart/list with them as they browse the store.
- Online checkout - through the webpage will offer the ability to customers to purchase all or some of the items in their cart in addition to selecting the type of delivery/pickup they desire.
- Delivery/pickup of items - functions to alert employees of the desire of the customer as to which preferred delivery method suites their lifestyle most comfortably, alerting employees to the method by which they are to aid the customer in obtaining their goods.

>

## 2.3 User Classes and Characteristics

This subsection of the SRS should describe those general characteristics of the intended users of the product including educational level, experience, and technical expertise. It should not be used to state specific requirements, but rather should provide the reasons why certain specific requirements are later specified in Section 3 of the SRS.

< There are two main user classes, shoppers and employees. These two classes are broken down into paths for shoppers and roles for employees. >

## 2.4 Constraints

This subsection of the SRS should provide a general description of any other items that will limit the developer's options. These include

a)Regulatory policies;
b)Hardware limitations (e.g., signal timing requirements);
c)Interfaces to other applications;
d)Parallel operation;
e)Audit functions;
f)Control functions;
g)Higher-order language requirements;
h)Signal handshake protocols (e.g., XON-XOFF, ACK-NACK);
i)Reliability requirements;
j)Criticality of the application;
k)Safety and security considerations.

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## 2.5 Assumptions and Dependencies

This subsection of the SRS should list each of the factors that affect the requirements stated in the SRS.These factors are not design constraints on the software but are, rather, any changes to them that can affect the requirements in the SRS. For example, an assumption may be that a specific operating system will be available on the hardware designated for the software product. If, in fact, the operating system is not avail-able, the SRS would then have to change accordingly.

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# 3 Specific requirements

## 3.1 External Interface Requirements

### 3.1.1 User Interfaces

When a customer first visits the Whole Knockoffs grocery store website, the user will initially see a page similar to Figure 3.1. This page will show the customer deals that

the store wants to promote. When the customer clicks on an item box, an item details page similar to the one in Figure 3.2 should be shown. From this page, the user can view details about the item, view images of the item, and add the desired quantity to the shopping cart.

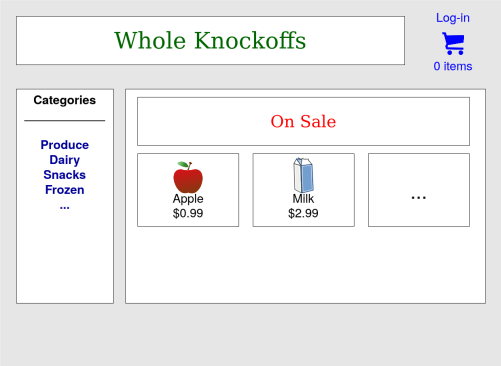


Figure 3.1: Homepage

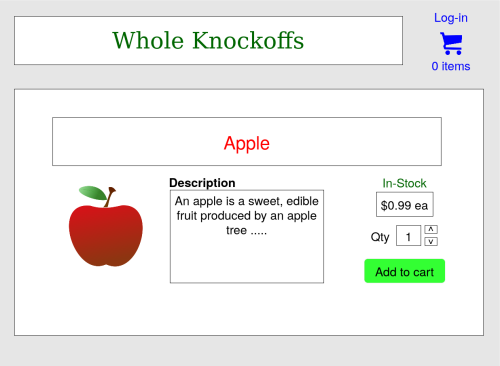


Figure 3.2: Item Page

When the customer clicks on the cart icon, the user can then view a list, the quantity, and the total price for the items that the user selected. Using an interface similar to Figure 3.3, the user can change the quantity and review their order. If the user is not logged in to the system, they will be prompted to login to the page shown in Figure 3.4.

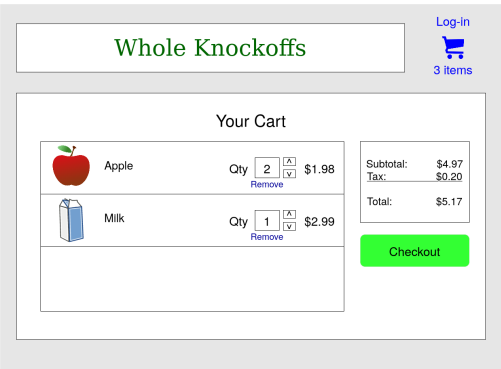


Figure 3.3: Customer Cart

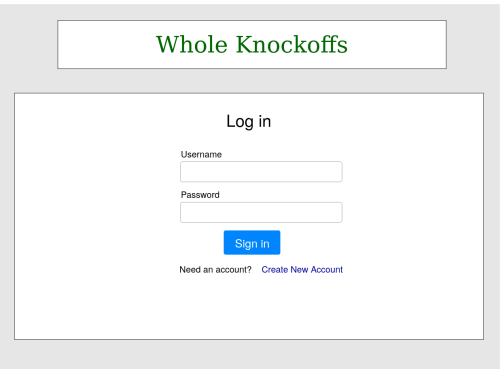


Figure 3.4: Login Page

When the user is logged in, the user will then be presented with the payment screen. If the user does not have any stored page information or the user is a guest, they will be presented with a user interface similar to Figure 3.5.

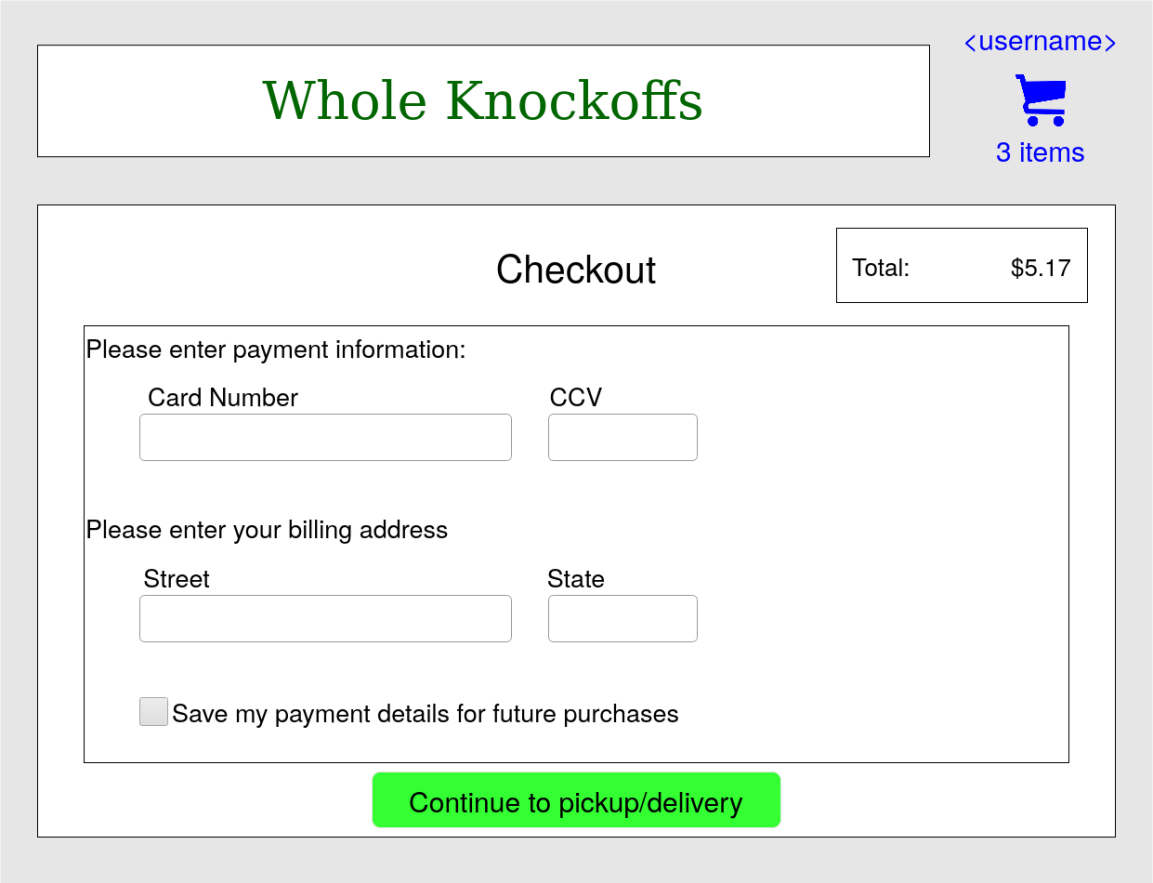


Figure 3.5: Payment Info

<Placeholder for more user interface>

### 3.1.2 Hardware Interfaces

< Placeholder >

### 3.1.3 Software Interfaces

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### 3.1.4 Communications Interfaces

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## 3.2 System Features

### 3.2.1 Online checkout

#### 3.2.1.1 Introduction/Purpose of feature

The checkout feature allows users to pay for their item(s) currently in the Cart list to complete their order. Depending on type of users, the feature should preload required user's information for the checkout process including: home address for delivery, billing address, and payment method. Furthermore, the users can specify payment and delivery options on the checkout page.

#### 3.2.1.2 Stimulus/Response sequence

Existing users/members: When the "Checkout" option is clicked, the system will direct the user to the checkout page. On the checkout page, certain user information should be preloaded to help ease the checkout process. The user will have the option to use saved payment information or a different payment method. In addition, the user can select different delivery options including: in-store pickup or home delivery. If a user chooses home delivery, the system will use the user's saved home address. If the user chooses in-store pickup by car, the system will request car model information. The user will need to click "Complete Order" to process the order. Guest users: When the "Checkout" option is clicked, the system will direct the user to the checkout page. On the checkout page, the user would need to fill in all the required information needed for the checkout process. The user must select the payment method; the system will ask for billing address and payment information. In addition, the user can select different delivery options including: in-store pickup or home delivery. If a user chooses home delivery, the system will request a home address. If the user chooses in-store pickup by car, the system will request car model information. The user will need to click "Complete Order" to process the order.

#### 3.2.1.3 Associated functional requirements

##### 3.2.1.3.1 Functional requirement 3.1

**ID: FR1**
TITLE: Online checkout - Allow everyone to checkout online
DESC: The checkout feature should allow all users to pay for their item(s) currently in the Cart list to complete their order. Depending on type of users, the feature should preload and/or request required user's information for the checkout process including home address for delivery, billing address, and payment method. Furthermore, the users can specify payment and delivery options on the checkout page.
RAT: In order for all users to pay for their online order.

DEP: None

**ID and Name: FR1 Allow everyone to checkout online**

| Created By | Thoai Mai | Date Created | 03/15/2020 |
|---|---|---|---|
| Primary Actor | User | Secondary Actor | Website |

| | |
|---|---|
| Description: | The checkout feature should let guest user complete online order with the required information, including payment and home delivery/in-store pickup options |
| Trigger: | Guest user clicks on option "checkout" |
| Preconditions | None |
| Postconditions | Guest user successfully complete checkout for online orders, Payment received |
| Normal Flow | **Allow everyone to checkout online – Guest User**<br>Guest user selects checkout option<br>Website checks for type of user *Note: prompt for account login? Direct for different req path?*<br>Website established guest user<br>Website validates accurate pricing with additional taxes for total price<br>Website requests guest user the following information: name, payment information, billing address, option for home deliver or in-store pickup<br>Guest user select "Place Order" option<br>Website uses third party checkout system to validate payment transaction<br>If payment is successfully validated and received, website acknowledges "Order Place" message |
| Alternative Flow | None |
| Exceptions | Payment did not successfully validate<br>Guest user did not fill in the required information |
| Priority | High |

| Created By | Thoai Mai | Date Created | 03/15/2020 |
|---|---|---|---|
| Primary Actor | Member User | Secondary Actor | Website |
| Description: | The checkout feature should let member user complete online order with the required information, including payment and home delivery/in-store pickup options | | |
| Trigger: | Member user clicks on option "checkout" | | |
| Preconditions | Logged in as a member | | |
| Postconditions | Member user successfully complete checkout for online orders, Payment received | | |
| Normal Flow | **Allow everyone to checkout online – Member User**<br><br>Member user selects checkout option<br>Website checks for type of user<br>Website established member user<br>Website preloads member information: name and address<br>Website validates accurate pricing with additional taxes for total price<br>Website requests member user the following information: payment information, billing address, option for home deliver or in-store pickup *Note: should website keep payment information for members*?<br>Guest user select "Place Order" option<br>Website uses third party checkout system to validate payment transaction<br>If payment is successfully validated and received, website acknowledges "Order Place" message | | |
| Alternative Flow | None | | |
| Exceptions | Payment did not successfully validate | | |
| Priority | High | | |

### 3.2.2 Account Management System

#### 3.2.2.1 Introduction/Purpose of feature

This feature allows users to create and edit settings for grocery store accounts. New users will use this feature to populate basic account information while setting up their account such as username and password. In addition, this feature allows existing users a convenient way to edit their password, change shipping addresses, manage stored payment information, and change other stored personal details. From the user management profile, users will also be able to see past purchases and orders.

#### 3.2.2.2 Stimulus/Response sequence

New users: When the "sign up" button is pressed, the system will direct the user to select a username and password to create their account. After the user fills appropriate values into these fields, the user will be able to sign in using the credentials selected. Existing users: When the "log in" button is pressed, the system will direct the user to enter their credentials to sign into the system. Logged-in users: When a user is logged-in and presses the "my account" button, the user will be brought to a page where they can edit their personal details

#### 3.2.2.3 Associated functional requirements

##### 3.2.2.3.1 Functional requirement 3.1

**ID: FR2**
TITLE: Create a new User account
DESC: A user should be able to register through the website. The user must provide user-name, password and e-mail address.
RAT: In order for a user to register an account
DEP: None

**ID and Name: FR2 Create a User new account**

| Created By | Emmanuel .W | Date Created | 03/13/20 |
|---|---|---|---|
| Primary Actor | User | Secondary Actor | Website |

| | |
|---|---|
| Description: | A user should be able to register through the website. The user must provide a name, user-name, password and e-mail address. |
| Trigger: | User Clicks on register |
| Preconditions | None |
| Postconditions | Account is created, User is Logged in |
| Normal Flow | **Create a User new account**<br>User Clicks on Register Enters name, user-name, password and e-mail address.<br>Website confirms it is a unique entry and save the new user details<br>Website Informs User of successful creation<br>Website Logs user in |
| Alternative Flow | None |
| Exceptions | Email Address already exists in the system |
| Priority | High |

##### 3.2.2.3.2 Functional requirement 3.2

**ID: FR3**
TITLE: Create a new Staff account

DESC: An administrator should assign staff roles and permissions and an internal company email address
RAT: In order for a user/staff to register an account
DEP: None

#### 3.2.2.3.3 Functional requirement 3.3

**ID: FR4**
TITLE: Login into Account
DESC: Given that a user/staff has created an account, then the user should be able to log in to his/her account.
RAT: In order to identify a user to shop online and use website/store's features or for staff to access admin platform
DEP: FR2

### 3.2.3 Inventory

#### 3.2.3.1 Introduction/Purpose of feature

The inventory stores information about the type, quantity, price and price of all the items that the grocery store stocks. The inventory feature allows different privileges to manage the store items according to the type of users. This feature will create items summary purchased by day, month and year. The user can assign what items to be on-sale. The feature updates item inventory after each completed consumer purchase.

#### 3.2.3.2 Stimulus/Response sequence

Inventory manager: Following options are available to an inventory manager
User: add/remove/update items from store inventory, assign items to be on-sale, can sort the items by date of purchased.
Existing users/members/guests: The users can only view the availability of store items on the store website.

#### 3.2.3.3 Associated functional requirements

#### 3.2.3.3.1 Functional requirement 3.1

**ID: FR5**
TITLE: Create a grocery item
DESC: An inventory Manager should be able to create a grocery item type, and should add the right classifications that apply to this grocery item.

RAT: In order for a Manager to register a new grocery item
DEP: None

#### 3.2.3.3.2 Functional requirement 3.2

**ID: FR6**

TITLE: Add quantity of grocery item DESC: The quantity of an item in the database should be able to be increased. This allows the store to replenish their inventory when new shipments arrive. RAT: In order to maintain a correct inventory DEP: FR5

#### 3.2.3.3.3 Functional requirement 3.3

**ID: FR7**

TITLE: Decrease quantity of grocery item DESC: The quantity of an item in the database should be able to be decreased. This allows the store to subtract from their inventory when they sell an item. RAT: In order to maintain a correct inventory DEP: FR5

#### 3.2.3.3.4 Functional requirement 3.4

**ID: FR8**

TITLE: Remove grocery items DESC: An inventory manager should be able to remove grocery items and add a reason for the removal eg. when they are expired. RAT: In order to remove grocery items for reasons order than purchase DEP: FR6

### 3.2.4 Storefront System

#### 3.2.4.1 Introduction/Purpose of feature

This feature allows customers on the website to see which items the grocery store has available to purchase as well as the item price and description. From the digital storefront, customers can also add different quantities of products to their shopping list and shopping cart. Products sold by the grocery store are divided into different categories to allow customers to easily browse items of specific types. In addition, a search is available for customers to locate a specific item quickly.

#### 3.2.4.2 Stimulus/Response sequence

On the Storefront homepage/category page: Listing of items available should be displayed for the selected category/ area of the website (e.g. promotions on the homepage and fruit while in the produce category). When a specific item is selected on the page, the customer is brought to that item's description page. From the description page, a quantity of that item can be selected to add to the shopping cart.

#### 3.2.4.3 Associated functional requirements

##### 3.2.4.3.1 Functional requirement 3.1

**ID: FR9**
TITLE: Storefront homepage
DESC: When the user enters the website URL, they shall be brought to a homepage. The homepage shall contain navigation buttons for the user.
RAT: So that a customer can navigate the website.
DEP: None

##### 3.2.4.3.2 Functional requirement 3.2

**ID: FR10**

does this show out of stock items but not allow purchase or hide out of stock items?

TITLE: Display items in inventory
DESC: When a category is selected, the storefront shall display all items matching the selected category that are in inventory.
RAT: So that a customer can quickly find items.
DEP: FR5

**ID and Name: FR10 Display items in inventory**

| Created By | Matthew M. | Date Created | 03/14/20 |
|---|---|---|---|
| Primary Actor | Storefront | Secondary Actor | Inventory |

| | |
|---|---|
| Description: | A user should be able to register through the website. The user must provide a name, user-name, password and e-mail address. |
| Trigger: | User selects category to filter by |
| Preconditions | Items have category specified in the inventory |
| Postconditions | The storefront displays only items that have the listed category |
| Normal Flow | The customer selects a store category from the homepage of the website<br>The website updates the list of displayed items with the selected category |
| Alternative Flow | None |
| Exceptions | No items with the selected category exist |
| Priority | High |

##### 3.2.4.3.3 Functional requirement 3.3

**ID: FR11**
TITLE: Search for available items
DESC: When a search term is entered in the searchbox, the storefront shall display all items matching the query.
RAT: So that a customer can quickly find items.
DEP: FR5

#### 3.2.4.3.4 Functional requirement 3.4

**ID: FR12**
TITLE: Display item details
DESC: When the customer clicks on an item on the storefront, the item details are displayed. The details include a product description and price
RAT: So that a customer can know what they are buying
DEP: FR10

#### 3.2.4.3.5 Functional requirement 3.5

**ID: FR13**
TITLE: Display sale items to customers
DESC: When a customer logs-in to the website, the homepage shall display sale items for.
RAT: So that a customer can know what they are buying.
DEP: FR4

### 3.2.5 Shopping list/cart

#### 3.2.5.1 Introduction/Purpose of feature

The shopping list/cart feature allows the user to manage their selected item(s). The feature includes information on items' price, availability, and location in the store. In addition, the user can change the quantity of item(s) to be purchased or remove item(s) from the shopping list/cart.

#### 3.2.5.2 Stimulus/Response sequence

Existing users/members/guest: The users can edit item's quantity and remove item from shopping list/cart. When the users are satisfied with their selected items, they can click the "Checkout" option to begin the checkout process. Existing users/members: The users are allowed to save shopping lists to their account.

#### 3.2.5.3 Associated functional requirements

##### 3.2.5.3.1 Functional requirement 3.1

**ID: FR14**

TITLE: Fill your shopping cart

DESC: A user/member (must be logged in and have created an account) should be able to look through our online shopping catalog and select items to place in his/her shopping cart.

RAT: In order for a user to add items to their shopping cart from the catalog of items

DEP: Must be a member

**ID and Name: FR14 Create your shopping cart**

| Created By | Howie Hill | Date Created | 03/15/20 |
|---|---|---|---|
| Primary Actor | User | Secondary Actor | Website |

| | |
|---|---|
| Description: | A user should be able to register login though the website, shop the catalog of online items, and add any in-stock items to his/her shopping cart. |
| Trigger: | User clicks add item to shopping cart |
| Preconditions | logged in as a registered user |
| Postconditions | item/s in the shopping cart |
| Normal Flow | **Compose shopping cart**<br>User Clicks to search the catalog of online items<br>Website shows the items<br>Next to each of the items there is an "add to cart" button<br>Button is clicked and the item is added to the cart<br>now the user can search through all of the items that have been added to the cart and go through his/her catalog of items in the cart |
| Alternative Flow | None |
| Exceptions | Item is out of stock<br>user is not registered/logged in |
| Priority | High |

##### 3.2.5.3.2 Functional requirement 3.2

**ID: FR15**

TITLE: Buy items from the shopping cart

DESC: Proceed to checkout from the shopping cart and buy all items in the shopping cart or a portion of the items in the shopping cart

RAT: Allow user to buy items that have been placed in the shopping cart

DEP: none

### 3.2.6 Employee

#### 3.2.6.1 Introduction/Purpose of feature

The employee feature allows the management of employees' time cards and tasks. Managers will be able to assign different tasks such as delivery, gather online orders, etc. In addition, managers should be able to view and edit employee scheduled work days. The system should track and display information about employee hours worked and display it to managers.

#### 3.2.6.2 Stimulus/Response sequence

Managers: When users logged in as managers, they can assign tasks for employees daily. The manager should be able to view statistics about hours worked Employees: When users logged in as managers, they are able to check-in/check-out on their time card. They will see the tasks assigned for them to be completed.

#### 3.2.6.3 Associated functional requirements

##### 3.2.6.3.1 Functional requirement 3.1

**ID: FR16**
TITLE: Employee login
DESC: All employees shall be able to log-in to the employee page.
RAT: So that employees view their schedules
DEP: none

##### 3.2.6.3.2 Functional requirement 3.2

**ID: FR17**
TITLE: Add or remove employees
DESC: Managers and admins shall be able to add or remove employees from the company.
RAT: So that employees can know their position in the company
DEP: none

##### 3.2.6.3.3 Functional requirement 3.3

**ID: FR18**
TITLE: Employee role
DESC: Employees must have a role such as manager, owner, cashier, etc... The employee role will dictate what features of the website to which the employee will have access.
RAT: So that managers can manage the company
DEP: FR17

#### 3.2.6.3.4 Functional requirement 3.4

**ID: FR19**

TITLE: Manager assign work days

DESC: Managers must be able to assign work days to employees. The manager must be able to set which hours for every day of the week for each employee.

RAT: So that employees can know which days to work

DEP: FR18

**ID and Name: FR19 Manager assigns work days**

| Created By | Matthew M. | Date Created | 03/123/2020 |
|---|---|---|---|
| Primary Actor | Manager(user) | Secondary Actor | Website |

| | |
|---|---|
| Description: | Managers must be able to assign work days to employees. The manager must be able to set which hours for every day of the week for each employee. |
| Trigger: | Manager clicks on a user to assign hours in the work scheduler portion of the website |
| Preconditions | The employee exists and is able to be assigned work hours |
| Postconditions | User has hours assigned for the next work week stored for their account |
| Normal Flow | **Manager assigns work hours**<br><br>1. Manager selects a user from a dropdown box<br>2. Manager selects a week from a dropdown box<br>3. The website presents a week view for each of the days of that week<br>4. The manager selects a day from the week view<br>5. The manager selects the start and stop time of the employees shift from a dropdown box<br>6. The manager clicks "Save"<br>7. The website stores the configuration to the employee's profile |
| Alternative Flow | None |
| Exceptions | Employee is already working in the selected timeframe |
| Priority | Low |

#### 3.2.6.3.5 Functional requirement 3.5

**ID: FR20**

TITLE: Employee view assignments

DESC: Employees must have a page where they can view their assigned schedule for the week. The schedule will show which days they will work and what hours they must work.

RAT: So that employees can know which days to work

DEP: FR19

#### 3.2.6.3.6 Functional requirement 3.6

**ID: FR21**
TITLE: Employee clock-in/clock-out
DESC: Employees must have a page where they clock in or out for their work day. If an employee is not currently clocked in, they will be presented with an option to clock in. If an employee is clocked in, they must be presented with an option to clock out.
RAT: So that managers can know how long an employee worked
DEP: FR17

### 3.2.7 Delivery/Pickup System

#### 3.2.7.1 Introduction/Purpose of feature

This feature shall allow customers to select where they want to obtain their groceries purchased online; either in-store pickup or delivery. This system shall assign an employee to prepare an online order received and notify the delivery employee or customer when an online order is ready.

#### 3.2.7.2 Stimulus/Response sequence

Delivery: If the user selects delivery during checkout, the system will check if the user has an address on file. If the user does not have an address, the system will prompt them to add one. After confirming the customer address and the customer completes a delivery order, an employee will be notified using the website about which groceries have to be collected from the store. After the employee completes the grocery collection, a driver will be notified of where to pickup the groceries and the location to deliver the groceries. Pickup: If the user selects pickup, the system will ask the customer what time they wish to pickup the groceries. After the order is completed, an employee will be assigned to collect the groceries and place the completed order in a designated spot. When the employee is notified that the customer is ready to pickup the order, the employee will bring the groceries to the customer.

#### 3.2.7.3 Associated functional requirements

#### 3.2.7.3.1 Delivery option – Delivery address validation

**ID: FR22**

| Created By | Thoai M. | Date Created | 03/23/2020 |
|---|---|---|---|
| Primary Actor | Guest/Member user | Secondary Actor | Website |

| | |
|---|---|
| Description: | The website shall check for user's choice of delivery or in-store pickup for payment processed online order and validate for delivery address. |
| Trigger: | User clicks on option "Place Order" |
| Preconditions | Payment was successfully received |
| Postconditions | Website obtains delivery address<br>Online order completes |
| Normal Flow | **Delivery address validation**<br><br>1. System shall check for delivery address information if delivery option was selected by user<br>2. If delivery address is missing, the website shall prompt user for delivery address and option to have online order as in-store pickup<br>3. User fills in delivery address or select in-store pickup option<br>4. User clicks the "Submit" option<br>5. If delivery address found, the website shall add delivery address information to the complete online order<br>6. If user picks in-store pickup, the website shall direct user to FR25 response sequence. |
| Alternative Flow | None |
| Exceptions | Payment did not successfully validate<br>User did not fill in delivery address information |
| Priority | High |

#### 3.2.7.3.2 Delivery option – Receive online order for delivery

**ID: FR23**

| Created By | Thoai M. | Date Created | 03/23/2020 |
|---|---|---|---|
| Primary Actor | Employee | Secondary Actor | Website |

| | |
|---|---|
| Description: | After order is complete, the website shall notify employee with order details |
| Trigger: | User clicks on option “Place Order”<br>User clicks on option “Submit” in FR22 |
| Preconditions | Payment was successfully received<br>Website obtains all required user’s information<br>Online order successfully processed |
| Postconditions | Delivery driver employee is notified to deliver order |
| Normal Flow | **Receive Online Order For Delivery**<br>1. The website shall notify an employee with the online order details<br>2. The website shall list the item(s) needed to be collected from the store<br>3. Employee completes item collection and package items for delivery<br>4. Employee clicks “Order ready”<br>5. The website will notify delivery driver employee of readied order with delivery address |
| Alternative Flow | None |
| Exceptions | No employee found |
| Priority | High |

#### 3.2.7.3.3 In-store pickup option – User selects pickup time

**ID: FR24**

| Created By | Thoai M. | Date Created | 03/23/2020 |
|---|---|---|---|
| Primary Actor | Member/Guest | Secondary Actor | Website |
| Description: | The website shall check for user's choice of in-store pickup for payment processed online order and validate for pickup time. | | |
| Trigger: | User clicks on option "Place Order" | | |
| Preconditions | Payment was successfully processed<br>Website obtains all required user's information | | |
| Postconditions | Website obtains user's desired in-store pickup time<br>Online order completes | | |
| Normal Flow | **User select pickup time**<br>1. The website shall check if the in-store pickup option is selected<br>2. The website shall prompt for user desired time to pick up order<br>3. User shall input desired time to pick up order and click "Submit"<br>4. The website shall use input time to prioritize order to be collected in store by employee<br>5. The website shall display a message to the user with estimated time when the order is ready for in-store pickup | | |
| Alternative Flow | None | | |
| Exceptions | No employee found | | |
| Priority | High | | |

#### 3.2.7.3.4 In-store pickup option – Receive online order for in-store pickup

**ID: FR25**

| Created By | Thoai M. | Date Created | 03/23/2020 |
|---|---|---|---|
| Primary Actor | Employee | Secondary Actor | Website |

| | |
|---|---|
| Description: | The website shall check for user's choice of in-store pickup for payment processed online order and validate for pickup time. |
| Trigger: | User clicks on option "Submit" in FR24 |
| Preconditions | Payment was successfully received<br>Website obtains all required user's information<br>Online order successfully processed |
| Postconditions | User receives order ready to be pickup in store notification |
| Normal Flow | **Receive online order for in-store pickup**<br>1. The website shall notify an employee with the online order details<br>2. The website shall list the item(s) needed to be collected from the store<br>3. Employee completes item collection and package items for in-store pickup<br>4. Employee clicks "Order ready"<br>5. The website shall notify user that their online order is ready for in-store pickup |
| Alternative Flow | None |
| Exceptions | No employee found |
| Priority | High |

## 3.3 Non-functional requirements

### 3.3.1 Login Security

System shall transmit user credentials in an encrypted form. This will prevent attackers from easily viewing the customer's credentials as they are transmitted.

< Placeholder >

## 3.4 Performance requirements

### 3.4.1 Inventory query response time

When a query is made of the inventory database, the system should not take more than 500 milliseconds to respond. This is to ensure that requests are handled quickly and the system does not become backlogged with requests. < Placeholder >

## 3.5 Design constraints

< Placeholder >

## 3.6 Software quality attributes

< Placeholder >

# 4 Appendixes

## 4.1 Appendix A: User Stories

- Feature: Grocery Storefront
  - As the store owner
  - I want customers to be able to quickly see what items are available for purchase
  - So that customers can quickly and easily purchase groceries.
- Feature: In-store pickup
  - As the store owner
  - I want customers to be able to pickup groceries in-store
  - So that I can sell more groceries

test

- Feature: In-store pickup
  - As a customer
  - I want to be able to pickup groceries in-store
  - So that I can conveniently get my groceries
- Feature: Add update item count
  - As an inventory manager
  - I want to be able to update the item quantity
  - So that I can track new items when the shelves are restocked
- Feature: View Schedules
  - As an employee
  - I want to be able to see my assigned schedule
  - So that I will know which days to go to work.
- Feature: Assign employee schedules

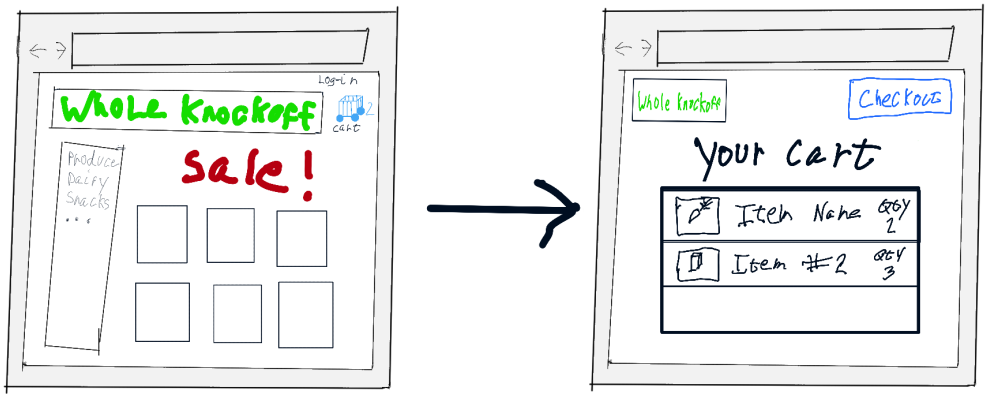
    - As an employer
    - I want to be able to assign hours to work for each employee for the week
    - So that the employees will know when they are supposed to work
- Feature: Track employee hours worked
    - As an employer
    - I want to be able to see the hours worked for each employee
    - So that I can know how much each employee needs to be paid
- Feature: Create a new account on online website
    - As a new consumer
    - I want to become a member
    - So that I can start shopping online with convenient and utilizing website/store's features and earn reward points
- Feature: Login into grocery's website
    - As a member
    - I want to order grocery online
    - So that I can pick-up my online order in-store to save time
- Feature: Create an online shopping list
    - As a member
    - I want to check for item's availability at the store
    - So that I can decide whether to go to the store
- Feature: Order grocery online to be delivered to resident
    - As a member or guest
    - I want to order grocery online and have it delivered to my home
    - So that I don't need to leave my house and save time
- Feature: Gathering summaries of consumer orders
    - As an Online Orders Manager
    - I want to see consumer orders in an easy to read organized format
    - So that I can assign online orders to store employees to complete the orders in a timely manner
- Feature: Options to add item into cart or shopping list

    - As a member or guest
    - I want to have the options to decide if the item will be in the cart or shopping list
    - So that I can make the purchase at a later time
- Feature: Display Customer Shopping list to delivery/pickup employees
    - As a delivery/pickup employee
    - I want to see the customer's shopping list assigned to me
    - So that I can start shopping for the customer's order
- Feature: User Confirmation System
    - As a pickup employee
    - I want to see the customer's details
    - So that I can confirm the customer's identity and handover the pickup order
- Feature: Show Delivery Details and route to delivery employee
    - As a delivery employee
    - I want to see the customer address, contact details and best route to the address
    - So that I can deliver the order to the customer
- Feature: Display Customer Rewards
    - As a registered customer
    - I want to see the reward points accrued over time
    - So that I can claim the rewards and make purchases
- Feature: Self Checkout Manager
    - As the checkout system
    - I want to scan grocery items
    - So that I calculate prices, collect user payment and dispense a receipt
- Feature: See which items are in stock
    - As a customer
    - I want to see which items are in stock
    - So that I can know which items are available for me to buy
- Feature: Maintain accurate inventory

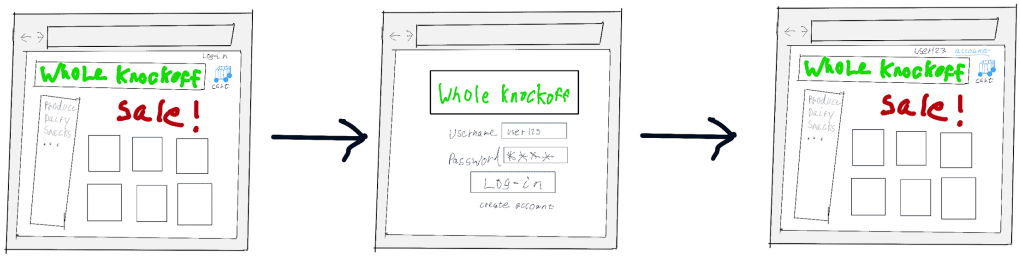
    - As an inventory manager
    - I want the inventory system to keep track of the number of each item sold
    - So that an accurate inventory is maintained
- Feature: See available items to purchase
    - As a customer
    - I want to see a listing of available items
    - So that I can make decisions on which items to buy
- Feature: List available items by category
    - As a customer
    - I want to be able to sort available items by category
    - So that I can quickly find the items that I want
- Feature: Virtual shopping cart
    - As a customer
    - I want to be able to add and remove items from a virtual shopping cart
    - So that I can keep track of the items that I wish to purchase for delivery or pickup
- Feature: Pay online
    - As the store owner
    - I want to accept payment on the website for online and in-store orders
    - So that I can make a profit

## 4.2 Appendix B: Diagrams

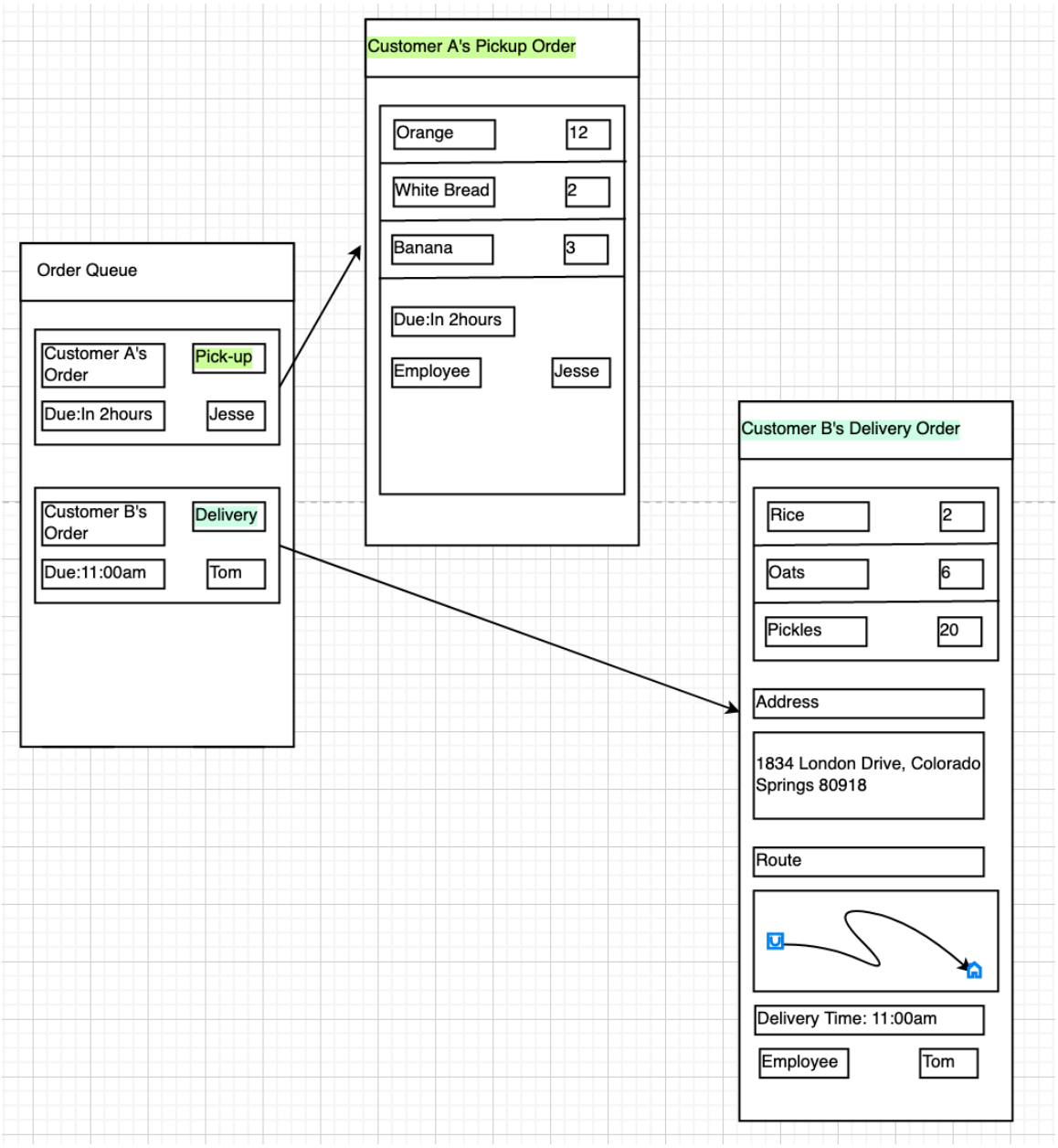
Shopping Cart:




User Log-in:




Employee Order Queue:




Options to add item into cart or shopping list:


## 4.3 Appendix C:

< Placeholder >