SOFTWARE REQUIREMENTS SPECIFICATION

for

Whole Knockoffs Grocery Store

April 5, 2020

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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 instock 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 instore.

DESC: Description - Explanation of the functional or non-functional requirement.

RAT: Requirements Authoring Tool - This line describes why the feature exists so that an automated tool can assist with classifying each requirement.

DEP: Dependencies - Other requirements that must work correctly for this requirement

to work.

1.4 References

< Placeholder >

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 webbased shopping and grocery store experience. Employees will be met with a 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 item selection interface from the web page. Coupling a simple 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

The inventory system is expected to interface with the store's checkout registers and the store web page. The employee interface and customer facing portion of the webpage will be separate but interface together on the same application. Although the web page 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

- 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 web page or to take the shopping cart/list with them as they browse the store.
- Online checkout through the web page 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

There are two main user classes, shoppers and employees. These two classes are broken down into paths for shoppers and roles for employees. Shopper paths will involve member and guest checkout, will feature shopping cart/wish list functionality and will allow the user to choose much of the shopping process from the site. Employee roles will guard the employees through their in-store duties and through their duties that come down directly from the web page.

2.4 Constraints

There are several constraints to the system, none of these constraints focuses around integration/s of other systems or regulatory policies so far as the development team knows at this time. Reliability requirements could be a major concern for the web page during periods of high traffic to the site and during times of low availability for certain products. Additional logging and/or auditing capabilities may be required for legitimizing transactions on the site, but these requirements have not yet been mentioned by the customer for the either the employee/shopping portions of the site.

2.5 Assumptions and Dependencies

Several future dependencies could change the requirements for the Whole Knockoffs grocery store purchasing/employee site. Integration with other shopping applications could alter the amount of information displayed by the site and how the site handles user paths during their shopping experience. There are few user dependencies for the system given the online/in-person shopping alternatives that Whole Knockoffs will offer to their customers. User login and checkout will not necessary store user information and will not mandate account creation to checkout using the online system.

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.

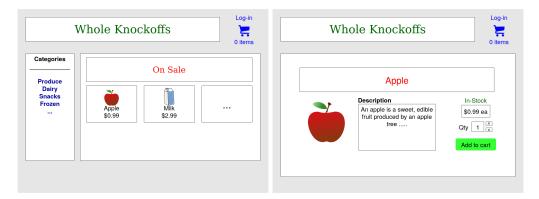


Figure 3.1: Homepage

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.

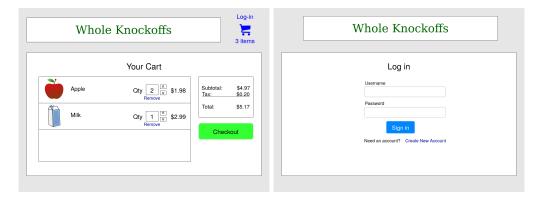


Figure 3.3: Customer Cart

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. After the customer's payment method is approved, The customer will be able to move to select how they would like to obtain their groceries. If the customer wishes to have their groceries delivered, they will be presented with an interface similar to Figure 3.6.



Figure 3.5: Payment Info

Figure 3.6: Delivery Selection Page

If the customer selects pickup to obtain their groceries, they will see an interface similar to Figure 3.7. After the user has finished entering the required information, The user will be presented with an order summary that shows them a confirmation of their order. This interface is shown in Figure 3.8.



Figure 3.7: Pickup Selection Page

Figure 3.8: Order Completion Page

3.1.2 Hardware Interfaces

The website application will be online and is accessible via web portal, no hardware needed.

3.1.3 Software Interfaces

The website application will communicate with a GPS application for delivery locations.

3.1.4 Communications Interfaces

The website application must have accessed communication to a separate inventory system from the Whole Knockoffs Grocery for inventory data; up to date inventory data is dependent on the store's inventory system.

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 Online checkout functional requirement 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	_	=
	der with the required	,	g payment and home
	delivery/in-store picku	* *	
Trigger:	Guest user clicks on op	otion "checkout"	
Preconditions	None		
Postconditions	Guest user successfully	complete checkout for	or online orders, Pay-
	ment received		
Normal Flow	Allow everyone to c	${ m checkout\ online-G}$	luest User
	Guest user selects checkout option		
	Website checks for type of user Note: prompt for account login?		
	Direct for different req path?		
	Website established guest user		
	Website validates accurate pricing with additional taxes for total		
	price		
	Website requests guest user the following information: name, pay-		
	ment information, billing address, option for home deliver or in-		
	store pickup		
	Guest user select "Place Order" option		
	Website uses third party checkout system to validate payment		
	transaction		
	If payment is successfully validated and received, website acknowl-		
	edges "Order Place" m	nessage	
Alternative Flow	None		
Exceptions	Payment did not succe		
	Guest user did not fill	in the required inform	nation
Priority	High		

Created By	Thoai Mai	Date Created	03/15/2020	
Primary Actor	Member User	Secondary Actor	Website	
Description:	The checkout feature s	hould let member use	r complete online or-	
	der with the required	information, including	g payment and home	
	delivery/in-store picku			
Trigger:	Member user clicks on			
Preconditions	Logged in as a member			
Postconditions	Member user successf	ully complete checkou	it for online orders,	
	Payment received			
Normal Flow	Allow everyone to c	${ m checkout\ online-M}$	lember User	
	Mombor ugor galagta ek	neelrout option		
	Member user selects checkout option			
	Website checks for type of user Website established member user			
	Website cstabilished member discrived Website preloads member information: name and address			
	Website validates accurate pricing with additional taxes for total			
	price			
	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?			
	Guest user select "Place Order" option			
	Website uses third party checkout system to validate payment			
	transaction			
	If payment is successfully validated and received, website acknowl-			
	edges "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 Account Management System functional requirement 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 t	he 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			
	User Clicks on Register Enters name, user-name, password and			
	e-mail address.			
	Website confirms it is a unique entry and save the new user details			
	Website Informs User of successful creation			
	Website Logs user in			
Alternative Flow	None			
Exceptions	Email Address already exists in the system			
Priority	High			

3.2.2.3.2 Account Management System functional requirement 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 Account Management System functional requirement 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 Inventory functional requirement 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 Inventory functional requirement 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 Inventory functional requirement 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 Inventory functional requirement 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 store-front, 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 Storefront System functional requirement 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 Storefront System functional requirement 2

ID: FR10

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

1D and Name: FK10 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	ne website. The user		
	must provide a name,	user-name, password a	and e-mail address.		
Trigger:	User selects category t	o 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				
	The website updates the list of displayed items with the selected				
	category				
Alternative Flow	None				
Exceptions	No items with the sele	cted category exist			
Priority	High				

3.2.4.3.3 Storefront System functional requirement 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 Storefront System functional requirement 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 Storefront System functional requirement 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 Shopping list/cart functional requirement 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

D and Name: FR14 Create your snopping 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 thou	gh the website, shop	
	the catalog of online it	ems, and add any in-s	tock items to his/her	
	shopping cart.			
Trigger:	User clicks add item to	shopping cart		
Preconditions	logged in as a registere	ed user		
Postconditions	item/s in the shopping cart			
Normal Flow	Compose shopping cart			
	User Clicks to search the catalog of online items			
	Website shows the items			
	Next to each of the items there is an "add to cart" button			
	Button is clicked and the item is added to the cart			
	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			
	user is not registered/l	ogged in		
Priority	High			

3.2.5.3.2 Shopping list/cart functional requirement 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 Employee functional requirement 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 Employee functional requirement 2

ID: FR17

TITLE: Add or remove employees

DESC: Managers and admins shall be able to add or remove employees from the com-

nany.

RAT: So that employees can know their position in the company

DEP: none

3.2.6.3.3 Employee functional requirement 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 Employee functional requirement 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 abl	e to assign work days	s to employees. The	
	manager must be able	e to set which hours	for every day of the	
	week for each employed	e.		
Trigger:	Manager clicks on a u	ser to assign hours in	the work scheduler	
	portion of the website			
Preconditions	The employee exists ar			
Postconditions	User has hours assigned	ed for the next work	week stored for their	
	account			
Normal Flow	Manager assigns work hours			
			_	
	1. Manager selects a user from a dropdown box			
	2. Manager selects a week from a dropdown box			
	3. The website presents a week view for each of the days of that week			
	4. The manager selects a day from the week view			
	5. The manager selects the start and stop time of the employees			
	shift from a dropdown box			
	6. The manager clicks "Save"			
	7. The website store	es 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 Employee functional requirement 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 Employee functional requirement 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/Pickup System functional requirement 1

ID: FR22

ID and Name: FR22 Delivery address validation

Denvery address varidation					
Created By	Thoai M.	Date Created	03/23/2020		
Primary Actor	Guest/Member	Secondary Actor	Website		
	user				
Description:	The website shall che	ck for user's choice of	f delivery or in-store		
	pickup for payment pr	ocessed online order a	nd validate for deliv-		
	ery address.				
Trigger:	User clicks on option '	'Place Order"			
Preconditions	Payment was successfu	ılly received			
Postconditions	Website obtains delive	ry address			
	Online order complete	\mathbf{S}			
Normal Flow	Delivery address va	lidation			
	 System shall check for delivery address information if delivery option was selected by user If delivery address is missing, the website shall prompt user for delivery address and option to have online order as instore pickup User fills in delivery address or select in-store pickup option User clicks the "Submit" option If delivery address found, the website shall add delivery address information to the complete online order If user picks in-store pickup, the website shall direct user to FR25 response sequence. 				
Alternative Flow	None				
Exceptions	Payment did not succe	· ·			
	User did not fill in del	ivery address informat	tion		
Priority	High				

3.2.7.3.2 Delivery/Pickup System functional requirement 2 ID: FR23

ID and Name: FR23 Receive online order for delivery

Created By	Thoai M.	Date Created	03/23/2020
Primary Actor	Employee	Secondary Actor	Website
Description:	After order is complet order details	e, the website shall	notify employee with
Trigger:	User clicks on option "		
	User clicks on option "		
Preconditions	Payment was successfu	•	
	Website obtains all req	•	ion
	Online order successful	lly processed	
Postconditions	Delivery driver employee is notified to deliver order		
Normal Flow	Receive Online Ord	er For Delivery	
	details 2. The website shall the store 3. Employee comple delivery 4. Employee clicks	notify delivery driver	d to be collected from nd package items for
Alternative Flow	None		
Exceptions	No employee found		
Priority	High		

3.2.7.3.3 Delivery/Pickup System $\,$ functional requirement 3 $\,$ ID: FR24

ID and Name: FR24 User selects pickup time

Created By	Thoai M.	Date Created	03/23/2020
Primary Actor	Member/Guest	Secondary Actor	Website
Description:	The website shall chee		
	payment processed onl	ine order and validate	for pickup time.
Trigger:	User clicks on option "	Place Order"	
Preconditions	Payment was successfu	lly processed	
	Website obtains all req	uired user's informati	on
Postconditions	Website obtains user's	desired in-store picku	p time
	Online order completes	3	
Normal Flow	User select pickup t	ime	
	lected 2. The website shall order 3. User shall input dimit" 4. The website shall collected in store 5. The website shall mated time when	l check if the in-store l prompt for user des lesired time to pick up ll use input time to p by employee l display a message t the order is ready for	order and click "Sub- prioritize order to be to the user with esti-
Alternative Flow	None		
Exceptions	No employee found		
Priority	High		

3.2.7.3.4 Delivery/Pickup System functional requirement 4 ${\rm ID:\ FR}25$

ID and Name: FR25 Receive online order for in-store pickup

Created By	Thoai M.	Date Created	03/23/2020		
Primary Actor	Employee	Secondary Actor	Website		
Description:	The website shall che	The website shall check for user's choice of in-store pickup for			
	payment processed onl	ine order and validate	for pickup time.		
Trigger:	User clicks on option '	'Submit" in FR24			
Preconditions	Payment was successfu	ılly received			
	Website obtains all rec	•	on		
	Online order successful	lly processed			
Postconditions	User receives order rea				
Normal Flow	details 2. The website shall the store 3. Employee comple in-store pickup 4. Employee clicks 5. The website shall for in-store pickup	l notify an employee versities item (s) needed etes item collection as "Order ready"	with the online order d to be collected from nd package items for		
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.

3.3.2 Mobile Useability

The website shall be mobile friendly.

3.3.3 Website Useability

The website's storefront shall use a legible font with a font size 12 pt or larger to promote consumer's usabilities.

3.3.4 Payment Security

The website shall protect consumer's personal data, which shall provide the consumer peace of mind and trust when using the website.

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.

3.4.2 Storepage Load Time

The website storefront shall load swiftly; the website should not take longer than 5 seconds to load. The average loading speed for each page should be 3 seconds with high speed internet connection.

3.5 Design constraints

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3.6 Software quality attributes

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4 Appendixes

4.1 Appendix A: User Stories

- Feature: Grocery Storefront
 - As the store owner
 - $\circ\,$ 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
- 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
 - \circ As an inventory manager
 - I want to be able to update the item quantity
 - o So that I can track new items when the shelves are restocked
- Feature: View Schedules
 - As an employee
 - $\circ\,$ I want to be able to see my assigned schedule
 - o So that I will know which days to go to work.
- Feature: Assign employee schedules
 - As an employer

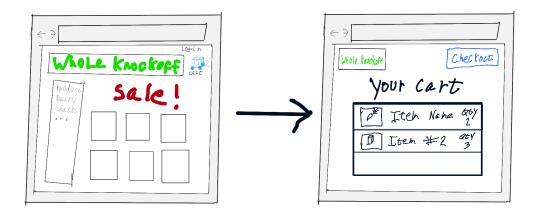
- o I want to be able to assign hours to work for each employee for the week
- So that the employees will know when they are supposed to work
- Feature: Track employee hours worked
 - As an employer
 - I want to be able to see the hours worked for each employee
 - o So that I can know how much each employee needs to be paid
- Feature: Create a new account on online website
 - As a new consumer
 - o 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
 - o So that I can pick-up my online order in-store to save time
- Feature: Create an online shopping list
 - As a member
 - o 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
 - o I want to order grocery online and have it delivered to my home
 - o 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
 - $\circ\,$ 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
 - o So that I calculate prices, collect user payment and dispense a receipt
- Feature: See which items are in stock
 - As a customer
 - o 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

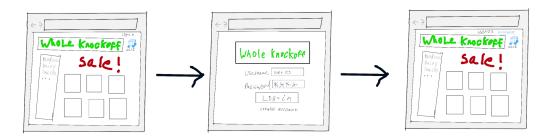
- I want the inventory system to keep track of the number of each item sold
- So that an accurate inventory is maintained
- Feature: See available items to purchase
 - As a customer
 - I want to see a listing of available items
 - So that I can make decisions on which items to buy
- Feature: List available 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
 - o I want to be able to add and remove items from a virtual shopping cart
 - $\circ\,$ 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
 - o So that I can make a profit

4.2 Appendix B: Diagrams

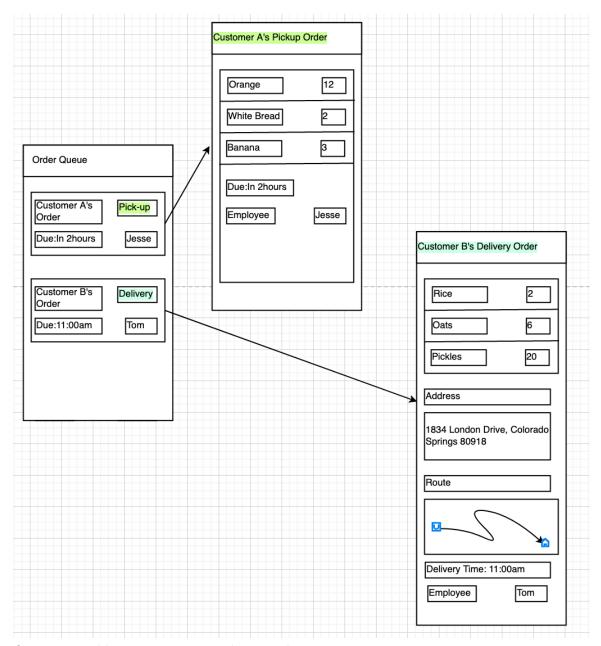
Shopping Cart:



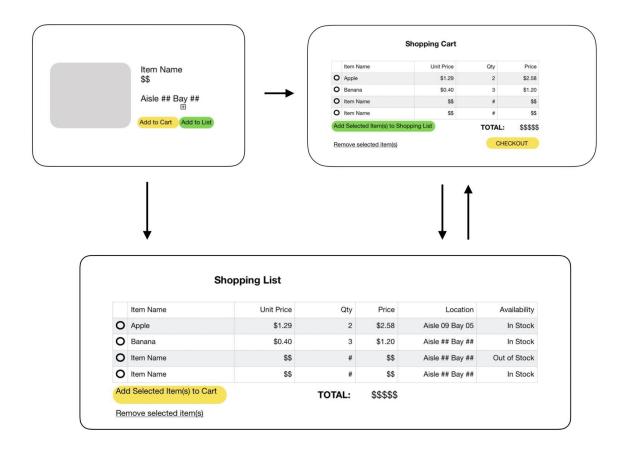
User Log-in:



Employee Order Queue:



Options to add item into cart or shopping list:



4.3 Appendix C:

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