

Group Name: Convenience Store Personal Scanner

Group Members: Andrew McKernan, Ian Hoole, Jack Gable, Josue Vargas, Logan Santos

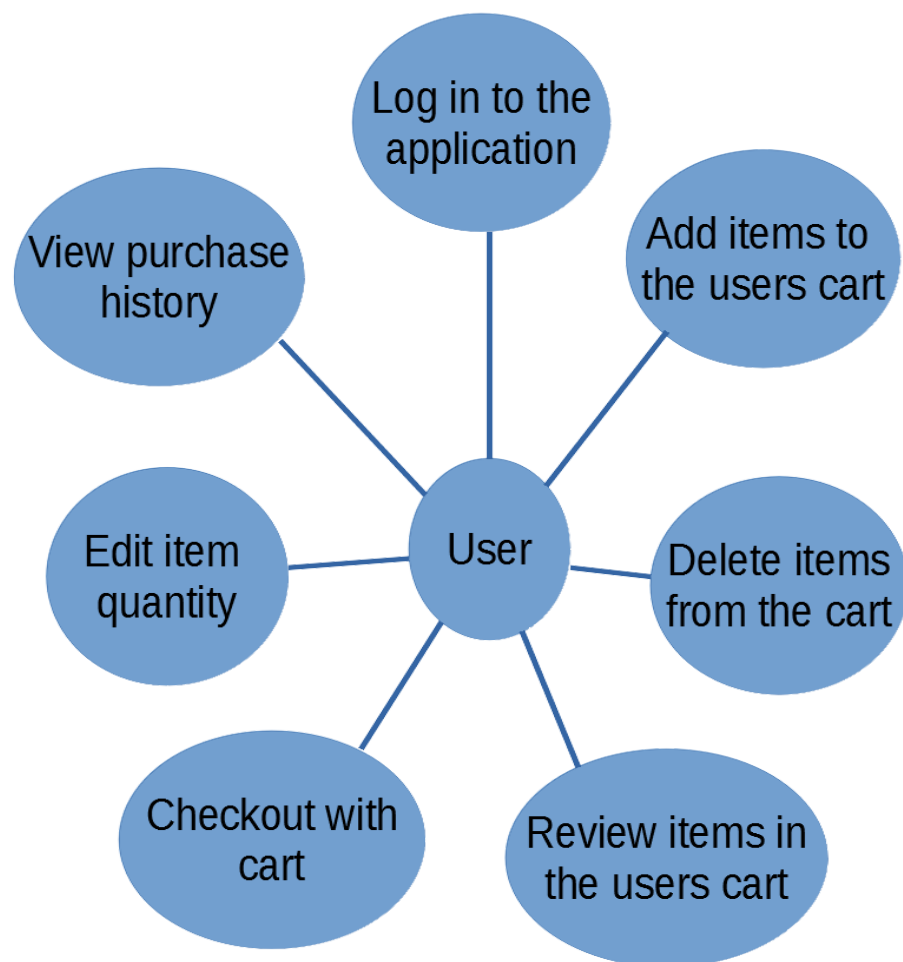
Overview of the problem:

During the era of covid we have seen an increasingly large demand for contactless delivery and pickup services. We aim to create a product that will give an individual the ability to shop in person and checkout without a cashier's assistance. We desire to give the user all of the advantages of an in person shopping experience, while maintaining the convenience of contactless ordering.

Overview of the solution:

Our solution is to create a shopping companion app that allows an individual to scan each item they put into their cart, view and edit their cart, as well as checkout and pay via a mobile app. This solution will allow the user to avoid lines at a grocery store, maintain minimal interaction during a public health crisis such as covid, and avoid any social interaction for those who prefer a more introverted shopping experience.

Usecase Diagram:



Usecase Descriptions:

a. Name	Delete items from a cart									
b. Actors	Users									
c. Goals	Remove an unwanted item from the users shopping cart									
d. Preconditions	User has logged in, user has at least one item in their shopping cart, and the user is not checking out									
e. Summary	Users may accidentally scan an unwanted product, or decide that the products that they did want are no longer as desirable. Therefore, the application must be able to remove any unwanted items from the shopping cart.									
f. Related Cases	Log into application, Add item to cart, View Cart									
g. Steps	<table><tr><td>Select View Cart</td><td>Cart items displayed</td></tr><tr><td>Select item to be deleted</td><td>Item is highlighted</td></tr><tr><td>Select remove</td><td>App asks confirmation</td></tr><tr><td>Confirm selection</td><td>Confirmation box disappears, Item disappears from cart</td></tr></table>		Select View Cart	Cart items displayed	Select item to be deleted	Item is highlighted	Select remove	App asks confirmation	Confirm selection	Confirmation box disappears, Item disappears from cart
Select View Cart	Cart items displayed									
Select item to be deleted	Item is highlighted									
Select remove	App asks confirmation									
Confirm selection	Confirmation box disappears, Item disappears from cart									
h. Postconditions	User's cart no longer has the selected item									
Creator	Ian Hoole									

a. Name	Checkout with cart																	
b. Actors	Users																	
c. Goals	View and pay for the items selected in cart																	
d. Preconditions	User has added at least one item to their cart and has selected check out.																	
e. Summary	Users will need to be able to pay for the items they have scanned without employee assistance or else there would be very limited functionality of this app.																	
f. Related Cases	Add item to cart, Remove item from cart, view cart																	
g. Steps	<table><tr><td>Select checkout</td><td>Shows a list of all items in cart</td></tr><tr><td>Select confirm checkout</td><td>App asks for Credit card info</td></tr><tr><td>Enter User's full name, Credit Card type, credit card number, and security code.</td><td>Populate data on screen</td></tr><tr><td>Select confirm Credit card</td><td>App accepts card and asks user for billing address.</td></tr><tr><td>Enter Billing address and zipcode.</td><td>Populate data on screen</td></tr><tr><td>Select if you want the app to remember your payment information.</td><td>Show users choice</td></tr><tr><td>Select confirm Billing address</td><td>Show cost total on screen</td></tr><tr><td>Select Confirm purchase</td><td>Thank user for purchase</td></tr></table>		Select checkout	Shows a list of all items in cart	Select confirm checkout	App asks for Credit card info	Enter User's full name, Credit Card type, credit card number, and security code.	Populate data on screen	Select confirm Credit card	App accepts card and asks user for billing address.	Enter Billing address and zipcode.	Populate data on screen	Select if you want the app to remember your payment information.	Show users choice	Select confirm Billing address	Show cost total on screen	Select Confirm purchase	Thank user for purchase
Select checkout	Shows a list of all items in cart																	
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Select confirm Billing address	Show cost total on screen																	
Select Confirm purchase	Thank user for purchase																	
h. Postconditions	Clear User's Cart. Add purchase to purchase history																	
Creator	Andrew McKernan																	

a. Name	View Cart								
b. Actors	Users								
c. Goals	View items in cart								
d. Preconditions	User has added at least one item to their cart.								
e. Summary	Users will be able to view items they have put in their cart. Users will also be able to remove items in their cart or checkout.								
f. Related Cases	Add item to cart, Remove item from cart, checkout with cart								
g. Steps	<table border="1"> <tr> <td>Select Cart</td><td>Shows a list of all items in cart</td></tr> <tr> <td></td><td>Shows the remove item from cart button</td></tr> <tr> <td></td><td>Shows Checkout button</td></tr> <tr> <td>Select Exit view cart or Checkout</td><td>Returns to main menu or moves to Checkout</td></tr> </table>	Select Cart	Shows a list of all items in cart		Shows the remove item from cart button		Shows Checkout button	Select Exit view cart or Checkout	Returns to main menu or moves to Checkout
Select Cart	Shows a list of all items in cart								
	Shows the remove item from cart button								
	Shows Checkout button								
Select Exit view cart or Checkout	Returns to main menu or moves to Checkout								
h. Postconditions	None								
Creator	Jack Gable								

a. Name	Add item to cart
b. Actors	Users
c. Goals	Scan an item and add it to the cart
d. Preconditions	User has logged in
e. Summary	The key functionality of this app is to scan items to add to your personal shopping cart
f. Related Cases	Select Quantity
g. Steps	<div> <div> Select Add item Line up the barcode with the box on screen. </div> <div> Open a camera to scan the barcode Detect the barcode and display item information Add item to cart and return to homepage. Show user that item was added correctly </div> </div>
h. Postconditions	Items are successfully added to cart.
Creator	Andrew McKernan

a. Name	View purchase history
b. Actors	Users
c. Goals	View history of past purchases
d. Preconditions	User has logged in
e. Summary	User can view past purchases. Shows what was bought, when it was bought and the price of each item and the entire order.
f. Related Cases	Log into application, Checkout with cart
g. Steps	<div> <div> 1. Click on "account"</div> <div>2. Show user account information</div> </div> <div> <div>3. Click "Purchase History"</div> <div>4. Show user's purchase history</div> </div>

a. Name	Log into the application					
b. Actors	Users					
c. Goals	To allow the user to enter the application					
d. Preconditions	Opening the application					
e. Summary	Users can sign into the application to be able to use the features.					
f. Related Cases	Add item to cart, view cart, checkout with cart, select quantity, remove item from cart, review purchase history.					
g. Steps	<table><tr><td>User opens application from homescreen</td><td>Shows login screen</td></tr><tr><td>User selects and enters in username and password</td><td>Checks credentials to allow login</td></tr></table>		User opens application from homescreen	Shows login screen	User selects and enters in username and password	Checks credentials to allow login
User opens application from homescreen	Shows login screen					
User selects and enters in username and password	Checks credentials to allow login					
h. Postconditions	User successfully logs into the main menu.					
Creator	Logan Santos					

a. Name	Select Item quantity		
b. Actors	Users		
c. Goals	To allow the user to increase or decrease the amount of a specific item they wish to purchase		
d. Preconditions	User has at least one item within their cart and selects view cart.		
e. Summary	It will be convenient if the user is able to select multiples of an item if they do not wish to scan each item individually		
f. Related Cases	Add item to cart, view cart		
g. Steps	<table border="1"> <tr> <td> The user enters view cart The user selects to increase or decrease the number of items in their cart. Return user to view cart </td> <td> Show each item within a cart Add or remove items form the cart. Can not decrease below 0. </td> </tr> </table>	The user enters view cart The user selects to increase or decrease the number of items in their cart. Return user to view cart	Show each item within a cart Add or remove items form the cart. Can not decrease below 0.
The user enters view cart The user selects to increase or decrease the number of items in their cart. Return user to view cart	Show each item within a cart Add or remove items form the cart. Can not decrease below 0.		
h. Postconditions	The quantities of items within the cart has been changed accordingly		
Creator	Andrew McKernan		

Non-functional use case description:

We want to ensure that scanning items is as quick as possible. The user experience will benefit greatly if the barcode detection and processing are as speedy as possible.

We want to ensure that the menuing between actions is both intuitive and explicit. We wish to add feedback for each action the user executes so there is no second guessing whether the action went through. Example: Add item plays an animation and sound to notify the user that the item was added correctly.