

# Requirement Documentation for Coffee Shop Ordering

Created by Team MERC

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# ***Requirements: Priority Table***

This coffee shop ordering system has been designed to fulfill the requirements below; these requirements are divided into sections and each requirement has an explanation of how our system implements it. Also, having a priority on which requirements to pursue.

Table begins:

Color Index:



Must Have



Need to Have



Good to Have

Task Id	Requirements	Description
1.1	"You will set up a record for each new customer."	Customer records can be added through the "Add New Customer" menu.
1.2	"Customer can be looked up with the help of a phone number."	There will be a button on the bottom of the home screen that helps the executives to look at customer information.
1.3	"Customer Information will be stored as the CustomerID, first name, last name, phone number and reward points"	In the "Add New Customer" menu, the User is presented with text fields that can be used to input this information of first name, last name, and phone number. The "Add Customer Record" button stores this information, once filled in, into the database.
1.4	"Users will access the Customer listing for all customer accounts that are recorded."	A transaction cannot be started unless a customer account has been selected.

1.5	"The information for the Customer listing should come from the customer database for already established customers, showing FirstName, LastName, phone number and their reward points."	The customer database will be called to the customer listing.
1.5.1	"User can input information to quickly find a specific customer"	An option input box will allow for the keying in a customer's phone number, so the user can pull up established Customer's information.
2.1	"Your system needs to process payments using either reward points or credit card"	The system processes credit card information and checks the validity of the information. The system will only take reward points for registered customers.
2.2	"You will need to keep track of the type of payment made and the amount."	Payments are recorded based on whether the customer used reward points or a credit card to get the product. This information is then transferred onto the receipt section where it will be printed out.
2.3	"Your system should be able to print out a receipt of the order."	Receipt data is stored throughout the order process by the system, and once the order is finalized the system displays the receipt.
2.3.1	"This receipt should have the last four digits of the credit card if used to purchase."	If the receipt is for a credit card purchase, the last four digits will be displayed on the printed receipt.
2.3.2	"This receipt should have customer information, a list of items ordered, and total, subtotal, and tax due."	The receipt displays these pieces of data starting from the customer information and ending on the total along with the tax.
2.4	Calculate order cost	The Payment Handler keeps a running subtotal of the order's cost. Once the order is finalized, taxes are added in, and a total amount is displayed to the user.
2.4.1	Calculate taxes	Once the order is finalized, the Payment Handler calculates tax using the appropriate tax rate of 0.6.

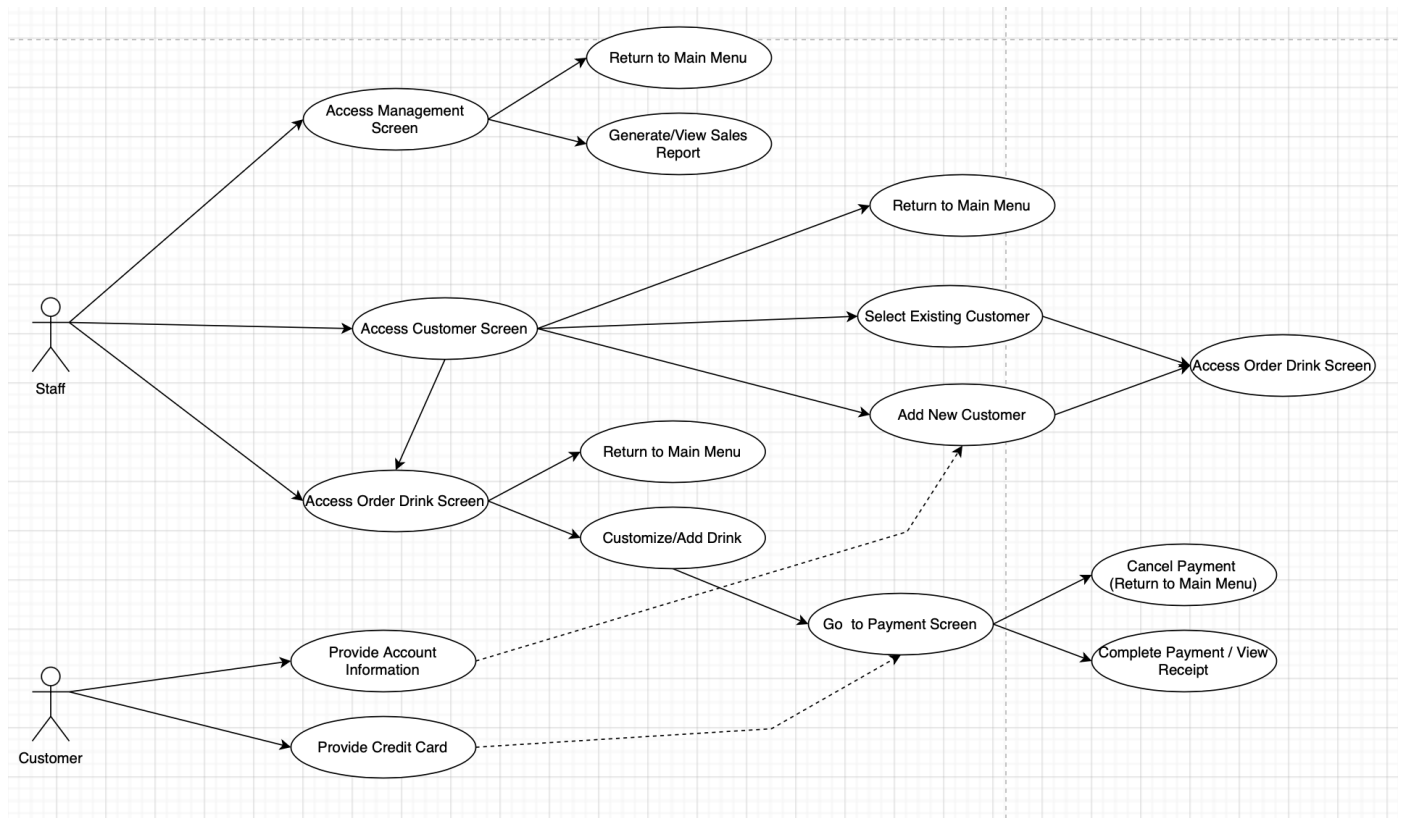
3.1	"Your system should contain the complete menu for order taking purposes"	The system contains the different types of coffees and teas along with various other options to customize your product as well as allowing the customer to choose the number of different products that they want in their final order.
3.2	"Your user needs to have GUI access to the various menu items and be able to quickly enter desired orders."	Original orders and basic orders are listed at the top of the menu and below are additional products that are desired by the customer that can be modified and quantified.
3.3	"The menu needs to have options that are related to the products of the menu."	Products on the menu have a drop-down menu where they can choose the amount as well as how they would like to customize their beverage.
3.4	"The menu shows the number of calories that the beverage contains"	The menu displays, based on the customized or standard beverage, the number of calories the beverage has.
4.1	"The system will be able to keep track of the items in the current order".	As each item is added to the Order, it is stored in the system and displayed graphically as a list in the Order Menu.
4.2	"The system will be able to add and remove items from the current order".	The User can customize the products based on the information they view from the order handler. Alternatively, items in the order can have their quantity increased via an increase quantity (+) button, but the decrease quantity (-) button will never go below 1. Finally, items can be removed by clicking the "Delete" button.
4.3	"The system will be able to cancel an order".	The order can be canceled at any time by clicking a "Cancel Order" or "Home Page" button.
4.3.1	"The user activating a cancel order will require confirmation."	Confirmation will be displayed in a pop-up form that will ask the user for confirmation to cancel their order.
5.1	"The Manager has an option to print out a csv report of transactions"	The report will be able to be printed out, only when the manager enters in a password to view the report.
5.2	"The system will run on Microsoft Windows 8 or newer."	We are developing this system to run on Windows 10 or Windows 11. While it may work on older versions of Windows, support is not guaranteed.

5.3

“Buttons when pressed will display a splattering of coffee beans for aesthetics”

Every time a button is clicked, then a short display of coffee beans splattering is going to appear around the button clicked.

### USE- CASE DIAGRAM:



# *Use Case Flow of Events*

## 1. Flow of Events for the [Access Customer Screen] Use Case

1. Preconditions: The user presses the “Customer List” button on the main screen.
2. Main Flow: This use case begins when an employee opens the list of all customers. The information is displayed for each existing customer. The user can select an existing customer profile, an anonymous profile, or create a new customer.
3. Sub-Flows
  1. [Create New Customer Account] The user clicks the “Add New Customer” button. The “Add Customer” screen appears and asks for the customer’s information. The user inputs the information and creates a new customer account. This then starts the [Access Order Drink Screen] Flow.
  2. [Access Order Drink Screen] - See Flow 2

## 2. Flow of Events for the [Access Order Drink Screen] Use Case

1. Preconditions: The user might have selected a customer from the [Access Customer Screen] Flow or pressed the “Order Drink” button from the main menu.
2. Main Flow: This use case begins when an employee opens the Order Drink Screen from the main menu, or from selecting a customer in Flow 1. The drink menu is displayed on the left, and the current shopping cart is displayed on the right with the associated prices.
3. Sub-Flows

1. [Customize Drink] The user selects a drink to add to the cart. The user can also select customizations to add to the drink and they are added to the cart.
2. [Go to Payment Screen] The user presses “Complete Order” and the “Payment Screen” appears. The user then gets card information from the customer and completes the payment.
  1. [Complete Payment] After payment is completed, the “Receipt Screen” appears. It displays the payment information and the list of items ordered.

#### 4. Alternate Flows

1. The user can cancel during this (or any) Sub-Flow. This will return the user to the main screen.
2. If the customer is both not anonymous and has enough rewards points, they can choose to pay with rewards points instead of their credit card.

### 3. Flow of Events for the [Access Management Screen] Use Case

1. Preconditions: The user selects the “Management Tools” button on the main screen.
2. Main Flow: The list of the day’s transactions is displayed.
3. Sub-Flows
  1. [Generate Sales Report] The user presses the “Generate Sales Report” button and the program outputs a .CSV format file with a list of all transactions for the day.
4. Alternate Flows
  1. The user can press the “Cancel” button to return to the main screen without generating a sales report.



## ***Decision Tables***

Decision table for order handling conditions:

Conditions:				
Type of user	Anonymous	Anonymous	Existing	Existing
Actions:				
valid credit card		x		x
Reward points=total	-	-	x	
Outcome:				
Order handling	Unacceptable	Acceptable	Acceptable	Acceptable

This decision table is to determine if a customer(user) can successfully submit an order using different payment methods and the type of customer they are categorized as.

Decision table for different customer page navigation:

Conditions:			
Customer Type	Anonymous	Existing	New User
Actions:			
Go to Customer Listing	-	x	x
Go to Register screen	-		x
Outcome:			
Navigate to Order Screen	x	x	x

This decision table is to determine the type of customer and their navigation through the different types of screens they will have access to according to the type of customer that they selected.

