FIT5136 Software Engineering
Assessment 1: Requirement Analysis
Project Title: Monash Merchant online shopping
Team: group 1

1. Executive Summary

The purpose of this report is to show the plan of an online shopping platform which is developed for Monash merchants supermarket. In this report, we will show the various functions of this online shopping platform, including how to register, shop, check out and more. At the same time, the application usage process will also be shown. The project aims to create an convenient online shopping platform for Monash Merchants' customers.

vision	Through an online shopping platform, Monash Merchants Supermarket has a richer and more convenient sales channels, so as to bring customers a more convenient and diversified shopping experience, and increase the revenue of Monash Merchants Supermarket
goals	Our goal is to increase the number of customers. Customer satisfaction is up 30 percent
outcomes	The supermarket's annual revenue will increase by 20 percent, and it will gain more customers
epic/themes	Online shopping platform provides a brand new sales method for supermarkets, through simple design and diversified functions, to bring customers more convenient shopping experience and more shopping options.
features	1. Customer Management 2. Product Management 3. shopping 4. checkout

2. User Stories and Acceptance Criteria

As a Monash Merchant supermarket online shopping platform, we designed several user stories through the INVEST principle:
The INVEST principle is independent, negotiable, valuable to users, estimable, small, and testable, and provides clear acceptance criteria to verify the correctness and completeness of the implementation.

Functional requirements user story:

As a product manager, I want to be able to add new items to my inventory, including product names, categories, prices, and quantities, so that what's in inventory matches what the system shows.(FR)

AC：

1, the system should provide a user interface accessible to the product manager to add new products to the inventory.
2, When adding a new product, the product manager should be able to enter the following information: product name, product category, product price, product quantity.
3, all fields (product name, category, price, quantity) are required to ensure that the product information is complete.
4, the user provides and verifies all the necessary information, and the system should add the new product to the inventory database.
5, After adding a new product, the user should receive a confirmation message indicating that the addition was successful.
6, after the successful addition, the product should be displayed in the inventory system immediately, and consistent with the information entered by the user.

As a product manager, I want to be able to search for products based on various attributes such as name, category, etc., so that I can quickly locate products and manage inventory efficiently.(FR)

AC：

1， The system should have a search bar displayed on the product management interface.

2， Users should be able to search for products by name.

3， Each result should contain relevant product information such as name, category, attributes, and availability status

4， The search function should provide fast and responsive results, even when dealing with large inventories.

5， Ensure search results dynamically update to reflect real-time inventory changes

As a customer, I want to be able to view my purchase history so that if I have questions about my bill, I can always verify it through my purchase history.(FR)

AC：

Customers log in before consultation

The system records each purchase history.
The system will update the purchase history after each purchase.
Each transaction will be accompanied by the quantity and price of the product at the time of purchase.
There will be professional staff to answer questions for customers who have questions about their purchase records.

As a customer, I want every item to be categorized so that I can more quickly find what I want to buy in the corresponding category. (FR)

AC：

The system will record all items on sale.
The system classifies all products. (supplies area, food area, tool area)
The system will update the remaining quantity of items on sale in a timely manner.
If the purchased quantity is greater than the remaining quantity, the system will issue a prompt.
Hot-selling products and products

As a Customer I want to Login my membership so that I can use exclusive benefits (FR)

AC:
1. Login Functionality:
(1)Implements login functionality as a separate module
(2)Displays login form with email and password fields, and a "Login" button
(3)Validates user credentials and redirects to personal account dashboard upon successful login
(4)Displays error message for invalid credentials and includes "Forgot Password" and "Create Account" links

2. Personal Account Dashboard :
(1)Creates a dedicated "Membership" section within the personal account dashboard
(2)Displays user's current membership tier, points balance, and available benefits
(3)Provides access to membership-related features and information

3. Membership Information :
(1)Displays user's membership tier, benefits, points balance, and points history
(2)Explains how to earn and redeem points and highlights points needed for next tier

4. Exclusive Offers and Promotions :
(1)Showcases exclusive offers, discounts, and promotions based on membership tier
(2)Indicates validity period and terms for each offer

(3)Allows users to easily redeem offers and apply discounts during checkout

5. Membership Preferences :

Provides options to manage membership preferences, communication preferences, and personal information

6. Logout Functionality :

(1)Includes a prominent "Logout" button within the personal account dashboard

(2)Implements logout functionality to securely end the user's session and redirects to login or homepage

7. Error Handling and Validation:

(1)Implements error handling for invalid login attempts, expired sessions, and exceptional scenarios

(2) Displays clear error messages and validates user inputs with real-time feedback

FR

As a customer ,I want to have the option of having my goods delivered so that I can receive the goods without leaving my home.(FR)

AC:

The system should display delivery and pick up options at checkout

The system should ask the user to enter address information, including city, dtreet and code, after selecting delivery

The system should choose where to pick up after the user selects pick up

The system should confirm after the customer has filled in the information

Non-Functional requirements user story:

As a customer,I want my information to be encrypted so that my privacy can be kept safe(NFR)

AC:

The system should have the user click the sign up button

The system should let users enter their own email address

The system should allow users to enter their own passwords

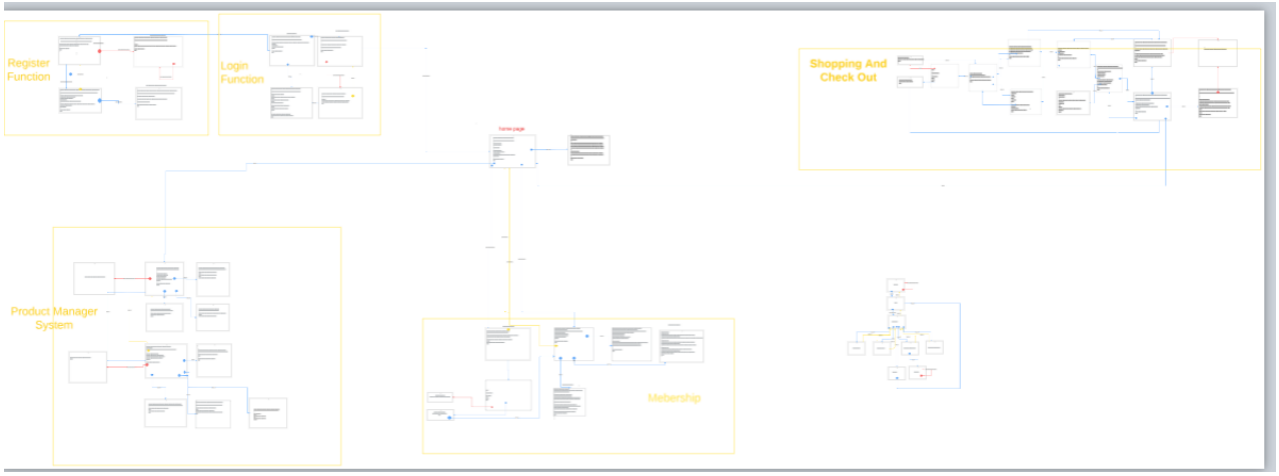
The system should allow users to enter personal information

The system should encrypt this information

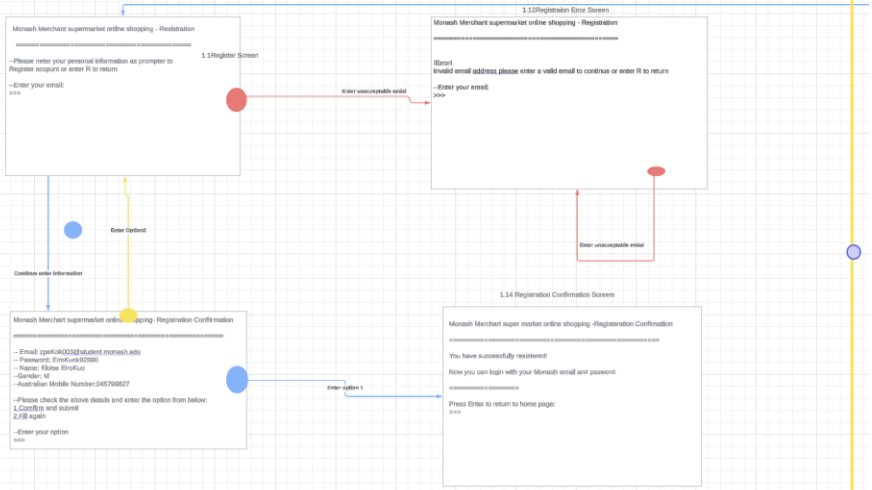
3. UI Prototype

Link to lucidchrat:

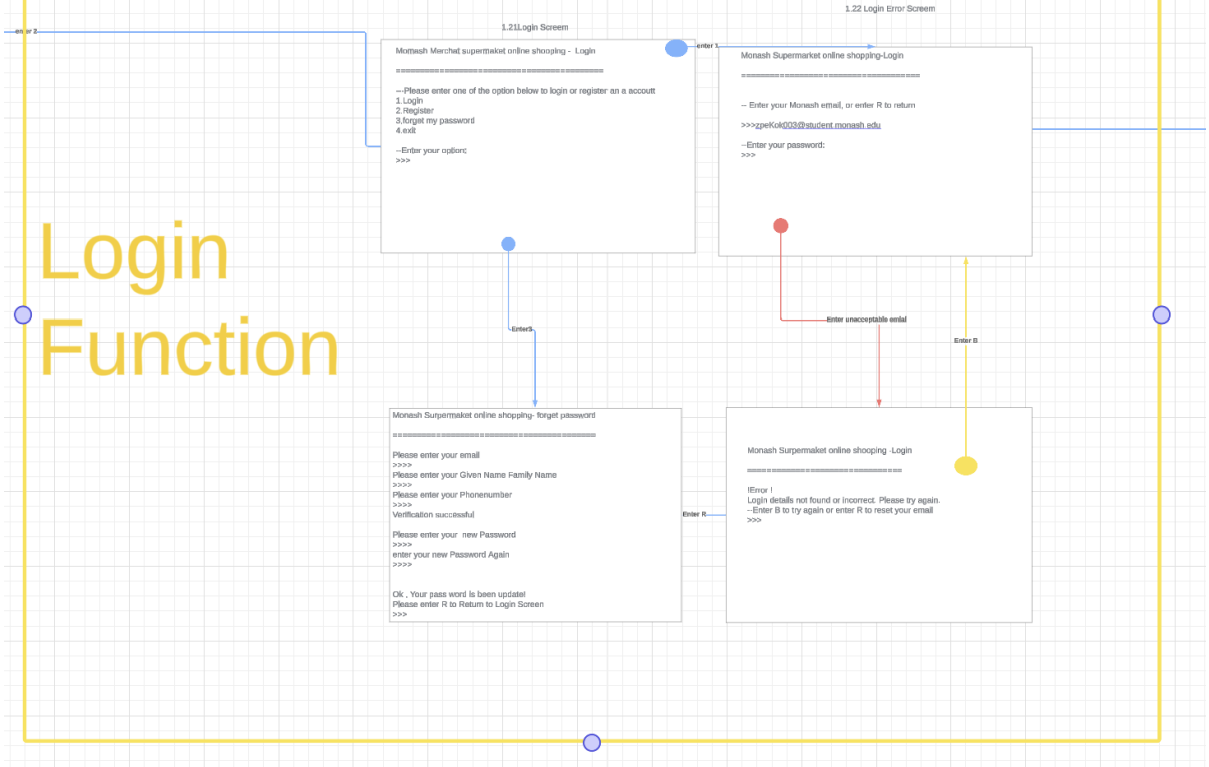
https://lucid.app/lucidchart/4406f03f-897f-47f0-a2ba-bb81b8776501/edit?viewport_loc=-12583%2C-7638%2C28582%2C15136%2CL8om2IA_KawK&invitationId=inv_b455aea3-16f2-4620-9e87-82200e68c01a

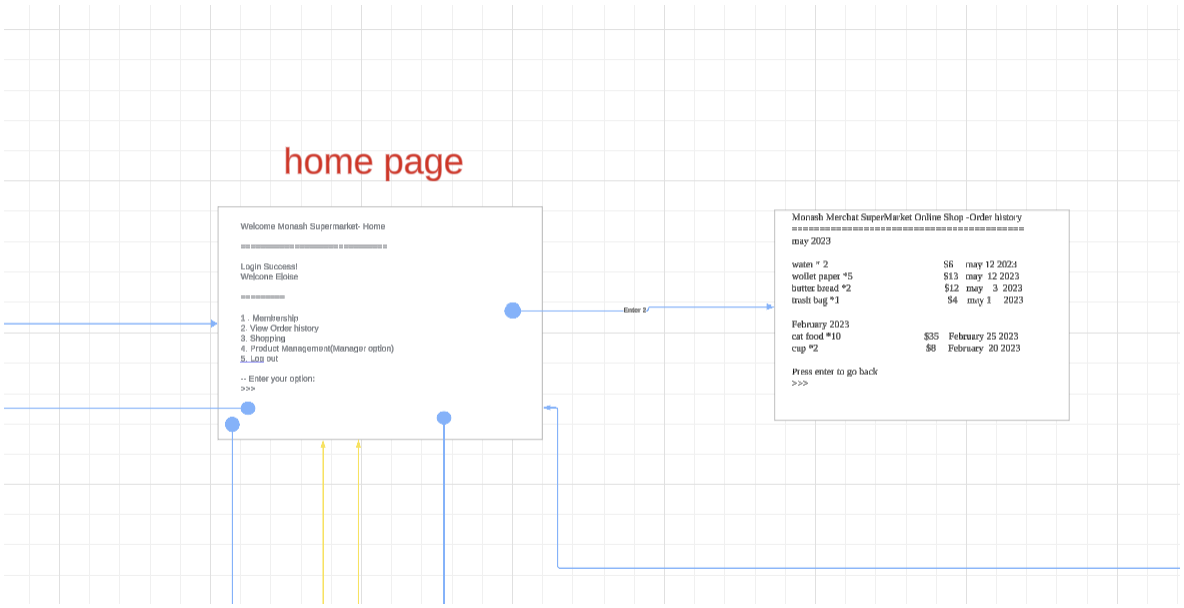


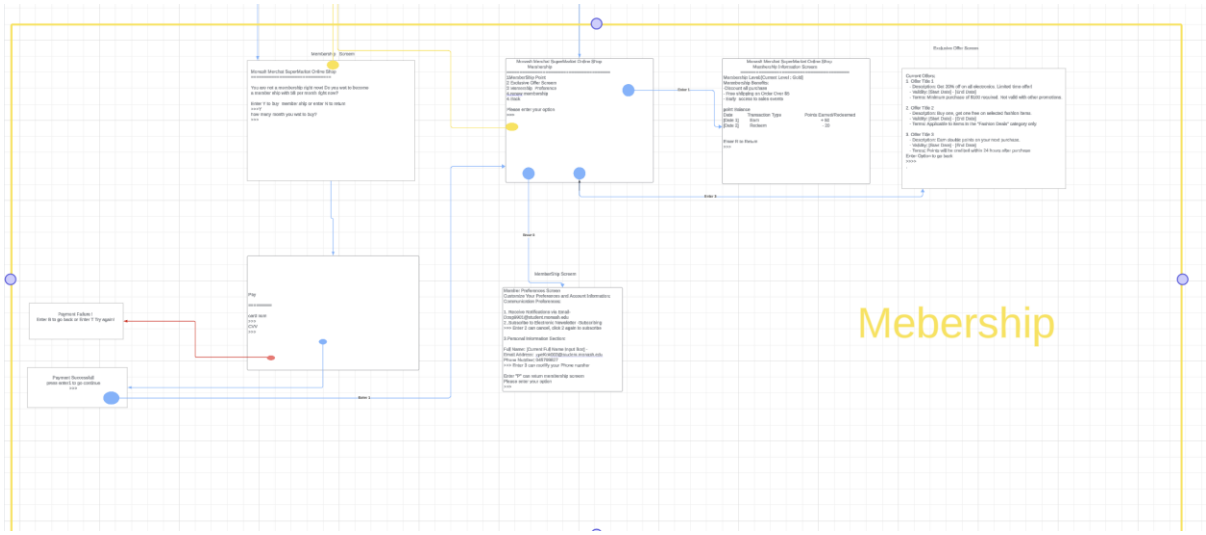
Register Function

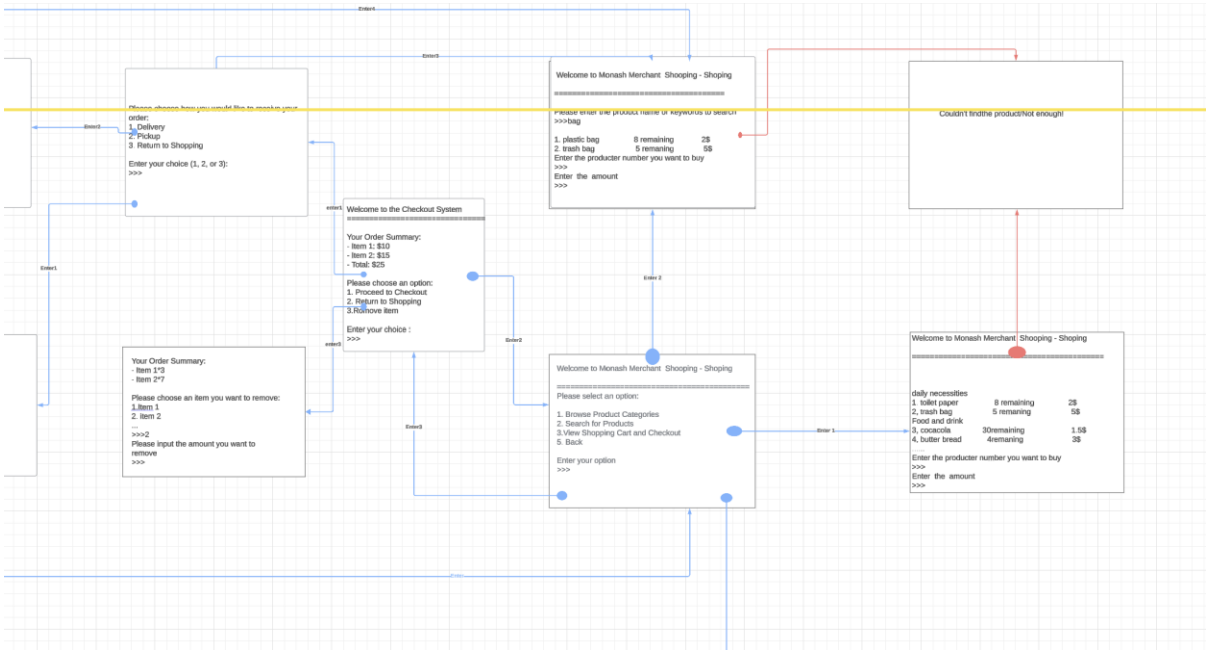


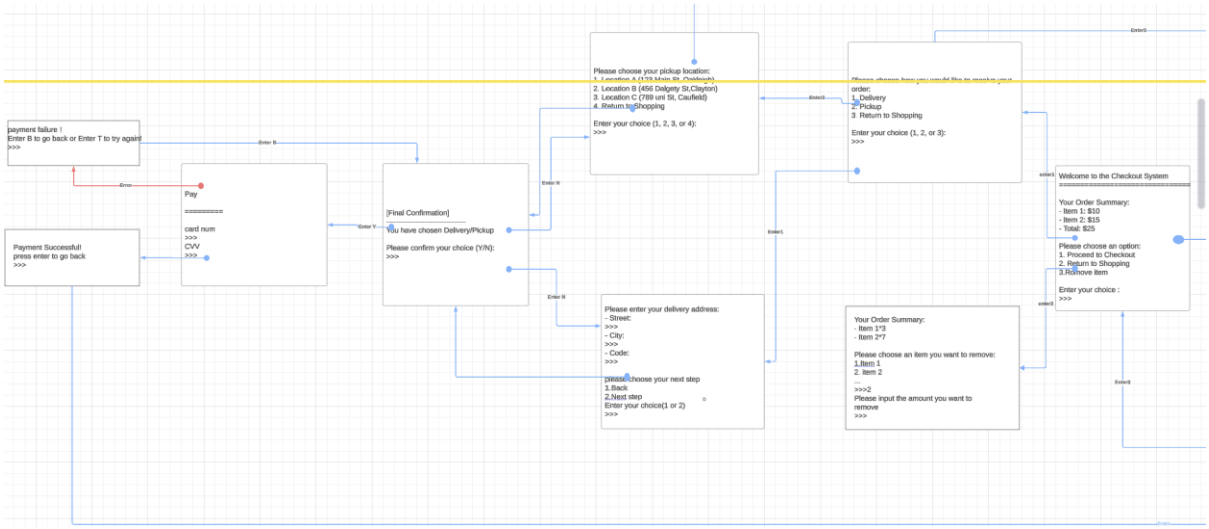
Login Function




home page
Welcome Monash Supermarket- Home
Login Success!
Welcome Eloise
1. Membership
2. View Order history
3. Shopping
4. Product Management(Manager option)
5. Log out
-- Enter your option:
>>>
Enter 2
Monash Merchat SuperMarket Online Shop -Order history
may 2023
water * 2 $6 may 12 2024
wollet paper *5 $13 may 12 2023
butter,bread *2 $12 may 3 2023
trasht bag *1 $4 may 1 2023
February 2023
cat food *10 $35 February 25 2023
cup *2 $8 February 20 2023
Press enter to go back
>>>


Mebership


Welcome to the Checkout System
Your Order Summary:
- Item 1: $10
- Item 2: $15
- Total: $25
Please choose an option:
1. Proceed to Checkout
2. Return to Shopping
3.Remove item
Enter your choice :
>>>
Your Order Summary:
- Item 1*3
- Item 2*7
Please choose an item you want to remove:
1.Item 1
2. Item 2
...
>>>2
Please input the amount you want to remove
>>>
Welcome to Monash Merchant Shooping - Shoping
Please enter the product name or keywords to search
>>>bag
1. plastic bag 8 remaining 2$
2. trash bag 5 remaining 5$
Enter the producter number you want to buy
>>>
Enter the amount
>>>
Couldn't findthe productNot enough!
Welcome to Monash Merchant Shooping - Shoping
Please select an option:
1. Browse Product Categories
2. Search for Products
3.View Shopping Cart and Checkout
5. Back
Enter your option
>>>
Welcome to Monash Merchant Shooping - Shoping
daily necessities
1. toilet paper 8 remaining 2$
2. trash bag 5 remaining 5$
Food and drink
3. cocacola 30remaining 1.5$
4. butter bread 4remaining 3$
Enter the producter number you want to buy
>>>
Enter the amount
>>>



Please choose your pickup location:
2. Location B (456 Dalgety St,Clayton)
3. Location C (789 uni St, Caufield)
4. Return to Shopping
Enter your choice (1, 2, 3, or 4):
>>>
order:
1. Delivery
2. Pickup
3. Return to Shopping
Enter your choice (1, 2, or 3):
>>>
Enter3
Enter2
payment failure !
Enter B to go back or Enter T to try again!
>>>
Enter B
Error
Pay
==========
card num
>>>
CVV
>>>
Enter Y
[Final Confirmation]
You have chosen Delivery/Pickup
Please confirm your choice (Y/N):
>>>
Enter N
Enter N
Enter1
Welcome to the Checkout System
==========
Your Order Summary:
- Item 1: $10
- Item 2: $15
- Total: $25
Please choose an option:
1. Proceed to Checkout
2. Return to Shopping
3.Remove item
Enter your choice :
>>>
enter1
enter3
Payment Successful!
press enter to go back
>>>
Please enter your delivery address:
- Street:
>>>
- City:
>>>
- Code:
>>>
please choose your next step
1.Back
2.Next step
Enter your choice(1 or 2)
>>>
Your Order Summary:
- Item 1*3
- Item 2*7
Please choose an item you want to remove:
1.Item 1
2. item 2
...
>>>2
Please input the amount you want to remove
>>>
Enter3