



PROJECT REPORT

Walmart - Online Shop Website

Semester: Web Apps Development
Class: SE1301
Group: Group 1
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I. Project Introduction

- Website that allow customers to search products, view product details, add products to cart, place orders and adjust personal information
- Manager can update orders, add and update products, categories, subcategories
- Admin can add, update and delete categories, subcategories, products, add/update users and update orders

1. Proposed System

- Create a system to sells and recommend products
- Help customer add products to cart and place order
- Help admin and manager to manage the shop easily
- Easy to use

2. The scope of the project to be applied

- For all customer
- Accessible by all smart devices with network connection

3. System Name

Walmart – Online Shop Website

4. Deployment Environment

- Hardware: Computer systems (pc, laptop), chip i7, ram 16G
- Software:
 - + Operating system: Windows 10
 - + Database : SQL Server

5. Development Tools

- Draw.io, Visual studio Code, SQL Server, .Net 7.0.

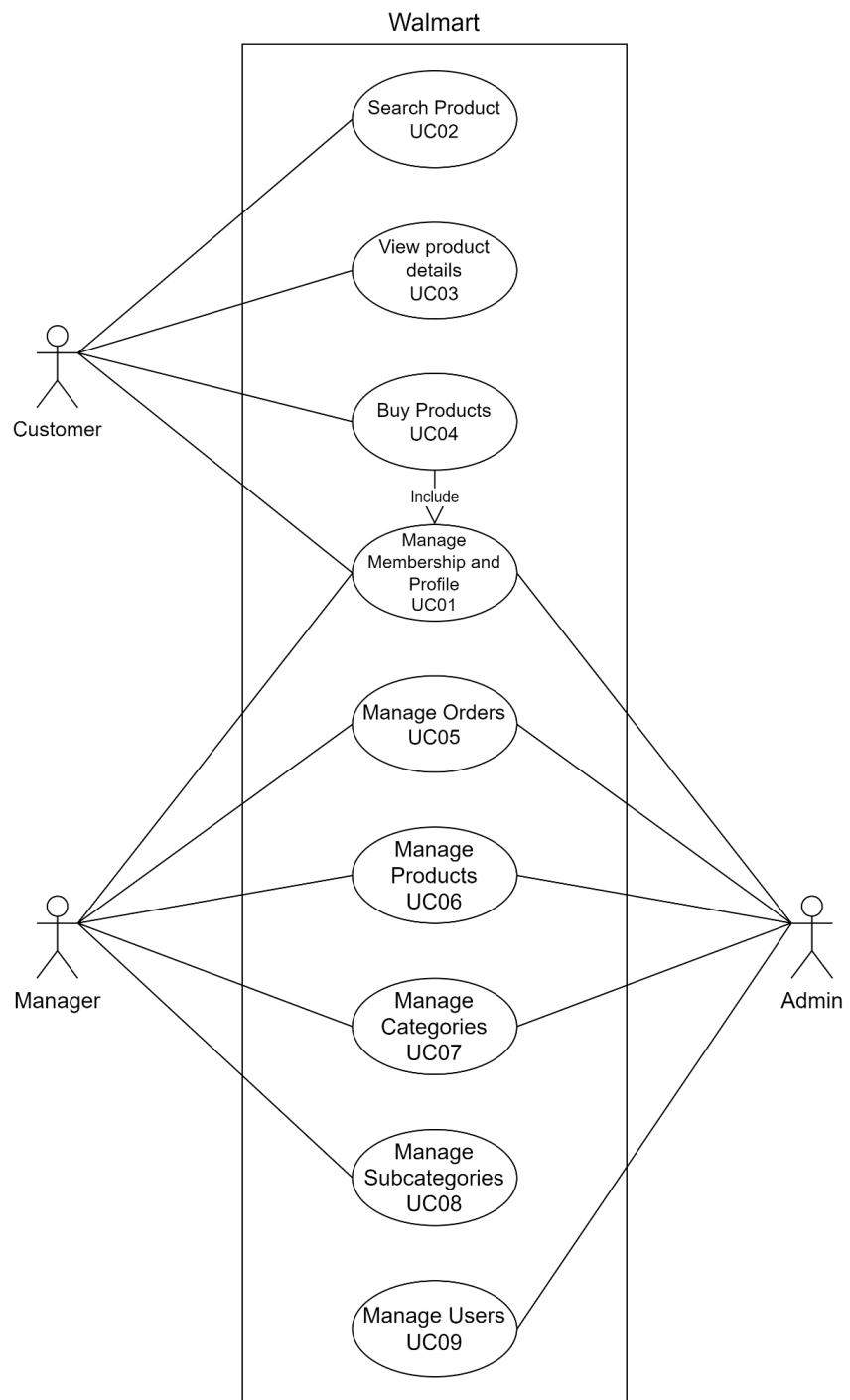
6. Customer Requirements

- Customer:
 - + Login
 - + Create New Account
 - + View Profile
 - + Update Profile
 - + View Purchase History
 - + Search Products
 - + View Product Details
 - + Add products to cart
 - + Place orders
- Manager:
 - + Add, update products, subcategories, categories
 - + Update order status
- Admin:
 - + Add, update user
 - + Add, update, delete products, subcategories, categories
 - + Update order status

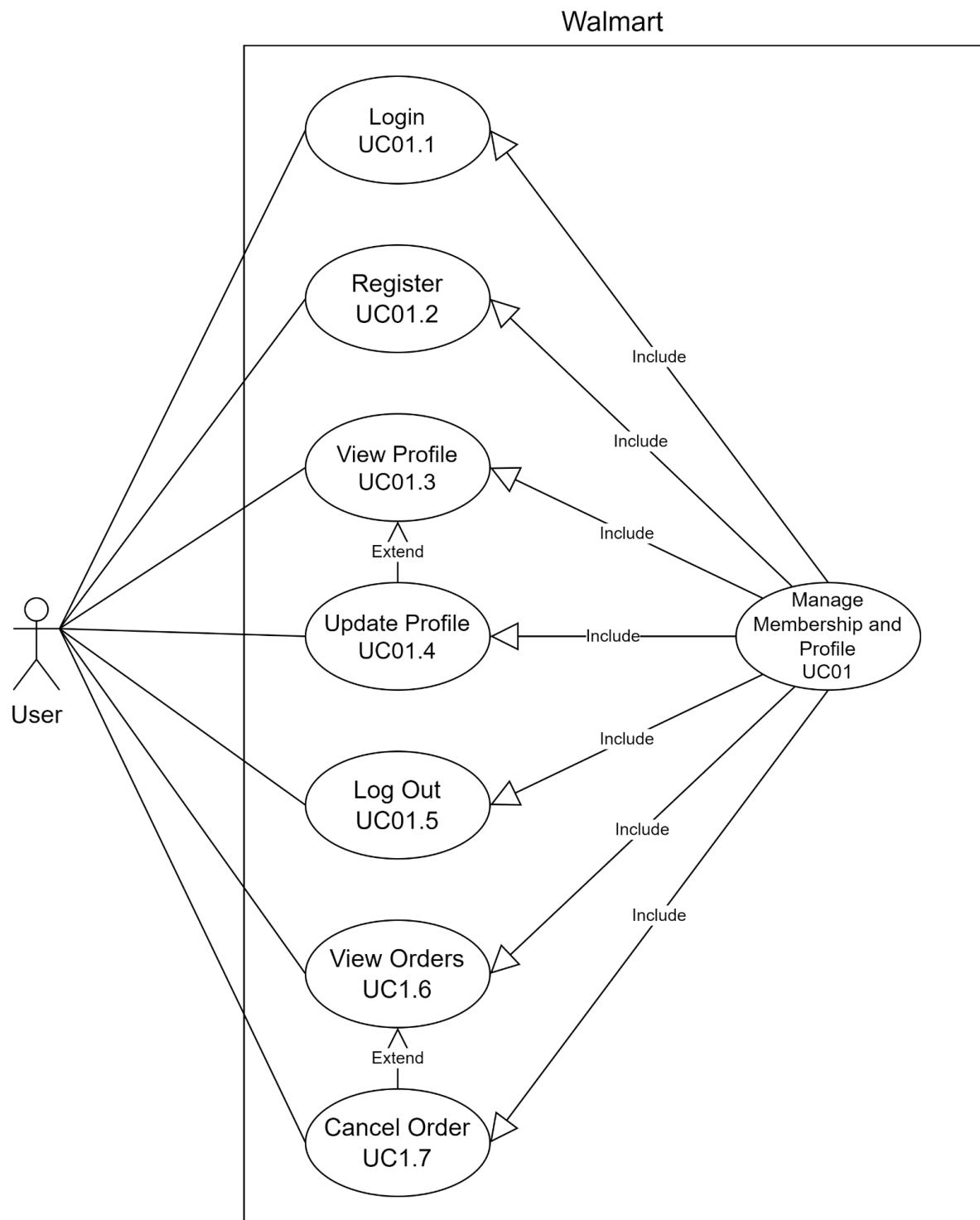
II. Analyze System Requirements

1. Use Case

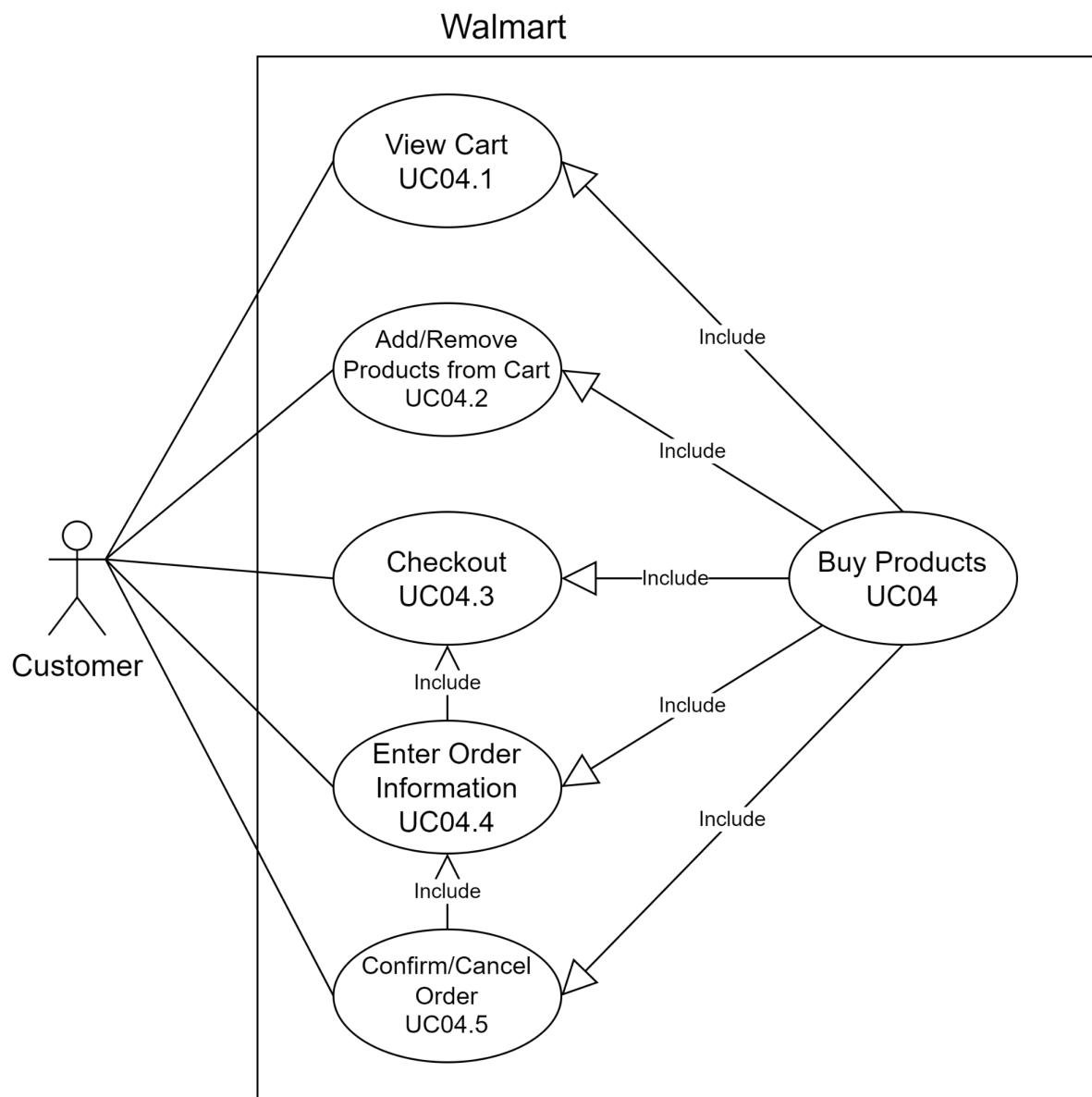
1.1: Total Use Cases



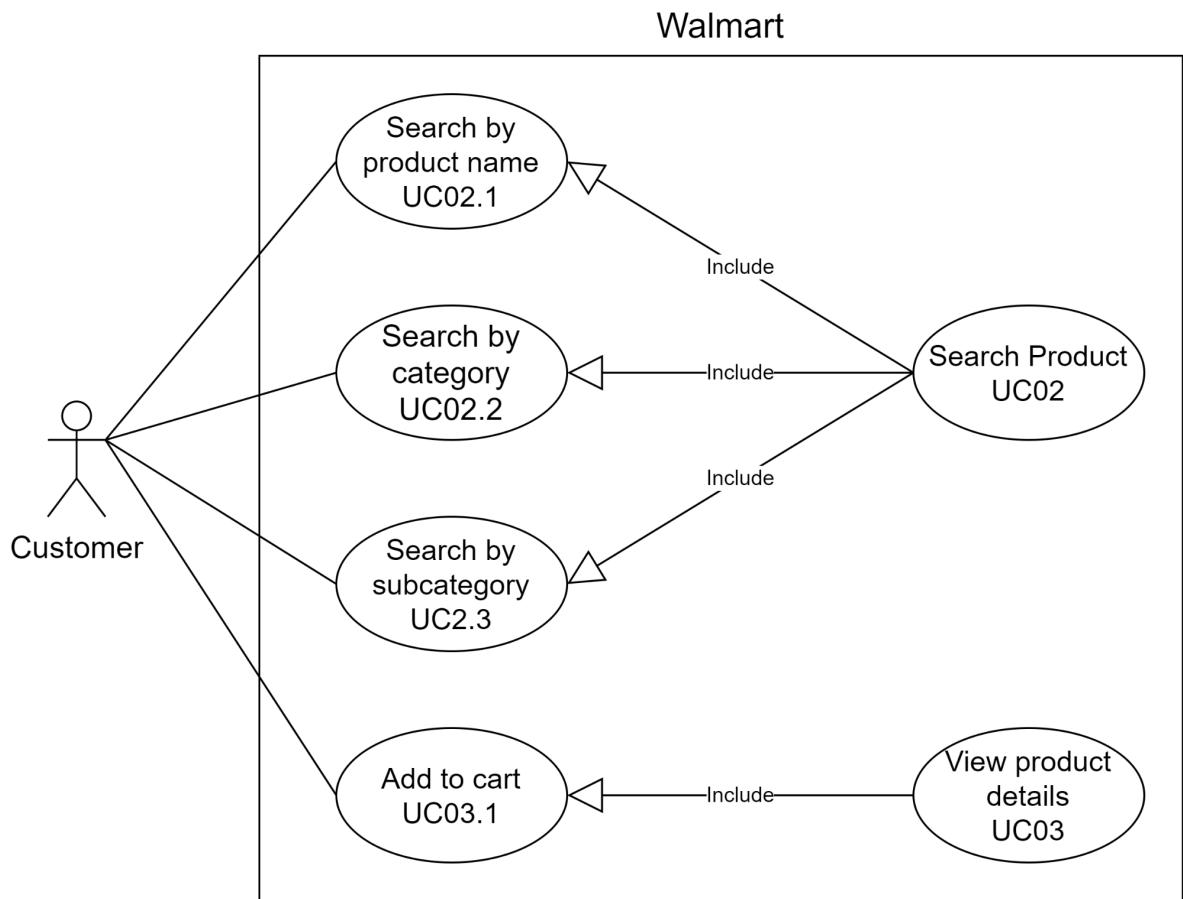
1.2: Manage Membership and Profile Use Case



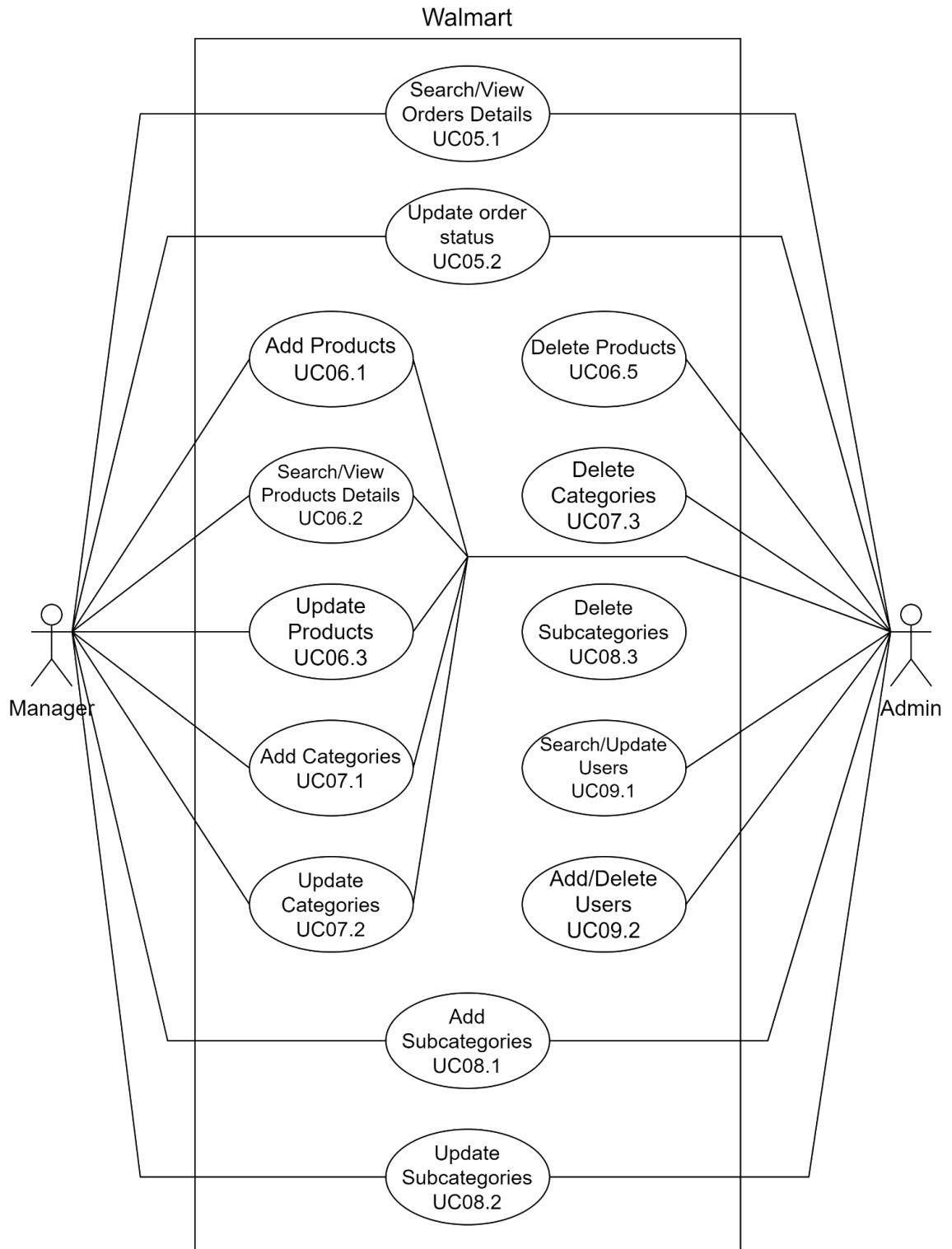
1.3: Buy Products Use Case



1.4: Customer Use Cases Details



1.4. Staff Use Cases Details



2. Use Case Description

2.1: Manage Membership and Profile Description

Title	Content
Use Case Name	Manage Membership and Profile
ID	UC01
Description	Customers manage their account
Actor	Customer, Manager, Admin
Trigger	Customer logs in and manage account
Preconditions	Customer has an account
Postconditions	Customer can manage their account
Main Course	<ul style="list-style-type: none"> 1. Customer select login or create account 2. Customer enters email and password 3. Customer is logged in 4. Customer manage profile
Alternate Course	AC1: Customer doesn't have an account <ul style="list-style-type: none"> 1. System redirect customer to register screen
Exception	Exception 1: Lost database connection <ul style="list-style-type: none"> 1. Show server connection lost message 2. Return to the main page

2.2: Login Description

Title	Content
Use Case Name	Login
ID	UC01.1
Description	Users login to the system
Actor	Customer, Manager, Admin
Trigger	User enter email that has an account
Preconditions	User enter email and password
Postconditions	Logged in successfully, redirect according to user's role
Main Course	<ol style="list-style-type: none"> 1. User select login or create account 2. User enter email 3. User enter password 4. Redirect to system screen according to user role
Alternate Course	AC2: User enter email that doesn't have an account <ol style="list-style-type: none"> 1. System prompt user to create an account AC3: User enter wrong password <ol style="list-style-type: none"> 1. System display error 2. System prompt user to re-enter password
Exception	Exception 1: Lost database connection <ol style="list-style-type: none"> 1. Show server connection lost message 2. Return to the login screen

2.3: Register Description

Title	Content
Use Case Name	Register
ID	UC01.2
Description	Customers register a new account
Actor	Customers
Trigger	Customer enters email that doesn't have an account
Preconditions	Customer enters email and informations
Postconditions	Create account successfully
Main Course	<ol style="list-style-type: none"> 1. Customer select login or create account 2. Customer enters email 3. Customer enters first and last name, password 4. Create account successfully, redirect to main page
Alternate Course	<p>AC2: Customer enter email that already has an account</p> <ol style="list-style-type: none"> 1. System prompt customer to login <p>AC3: Customer enter invalid password or password that already exist</p> <ol style="list-style-type: none"> 1. System display error 2. System prompt customer to re-enter password
Exception	<p>Exception 1: Lost database connection</p> <ol style="list-style-type: none"> 1. Show server connection lost message 2. Return to the register screen

2.4: View and Update Profile Description

Title	Content
Use Case Name	View Profile, Update Profile
ID	UC01.3, UC01.4
Description	User view and edit profile
Actor	Customer, manager, admin
Trigger	Select view profile
Preconditions	Logged into account
Postconditions	User can view and update profile
Main Course	<ul style="list-style-type: none"> 1. User select view profile 2. User choose which information to view or update 3. User enter new information and update profile
Alternate Course	AC3: User update password <ul style="list-style-type: none"> 1. User enter old password 2. System validate password 3. User enter new password 4. System update user password
Exception	Exception 1: Lost database connection <ul style="list-style-type: none"> 1. Show server connection lost message 2. Return to the main page screen

2.5: View Orders Description

Title	Content
Use Case Name	View Orders
ID	UC01.6
Description	User view all orders
Actor	Customer
Trigger	Select purchase history
Preconditions	Logged into account
Postconditions	User can view and cancel orders
Main Course	<ol style="list-style-type: none"> 1. User select purchase history 2. User search for order they want to view 3. User select order details to view order details
Alternate Course	AC1: User doesn't have any orders 1. System display user has no orders
Exception	Exception 1: Lost database connection 1. Show server connection lost message 2. Return to the main page screen

2.6: Cancel Orders Description

Title	Content
Use Case Name	Cancel Orders
ID	UC01.6
Description	User cancel orders
Actor	Customer
Trigger	Select cancel order
Preconditions	Logged into account
Postconditions	User can cancel orders
Main Course	<ul style="list-style-type: none"> 1. User search for order they want to cancel 2. User select cancel order 3. System change order status to cancel
Alternate Course	AC2: Order doesn't have pending status <ul style="list-style-type: none"> 1. User can't cancel order
Exception	Exception 1: Lost database connection <ul style="list-style-type: none"> 1. Show server connection lost message 2. Return to the main page screen

2.7: Log Out Description

Title	Content
Use Case Name	Log Out
ID	UC01.5
Description	User log out of account
Actor	Customer, manager, admin
Trigger	Select log out
Preconditions	User is logged in
Postconditions	System log out of user account
Main Course	<ul style="list-style-type: none"> 1. User select log out 2. System log out of user account 3. System redirect to main page
Alternate Course	
Exception	

2.8: Search Product Description

Title	Content
Use Case Name	Search Product
ID	UC02
Description	Customer search for product
Actor	Customer
Trigger	Customer search for products
Preconditions	
Postconditions	System displays products customer search for
Main Course	<ol style="list-style-type: none"> Customer enter product name they want to search for into the search bar System display products similar to the search request
Alternate Course	AC1: Customer search by choosing a category <ol style="list-style-type: none"> Customer choose a category System displays products of chosen category AC1: Customer search by choosing a subcategory <ol style="list-style-type: none"> Customer choose a subcategory System displays products of chosen subcategory
Exception	Exception 1: Lost database connection <ol style="list-style-type: none"> Show server connection lost message Return to the main page screen

2.9: View Product Details Description

Title	Content
Use Case Name	View Product Details
ID	UC03
Description	Customer view product details
Actor	Customer
Trigger	Select a product
Preconditions	
Postconditions	System display product details
Main Course	<ol style="list-style-type: none"> 1. Customer click on a product 2. System display product details and similar products
Alternate Course	
Exception	Exception 1: Lost database connection <ol style="list-style-type: none"> 1. Show server connection lost message 2. Return to the main page

2.10: Add to Cart Description

Title	Content
Use Case Name	Add to Cart
ID	UC03.1
Description	Customer add product to cart
Actor	Customer
Trigger	Customer choose to add product to cart
Preconditions	Customer is logged in
Postconditions	Product is added to cart
Main Course	<ol style="list-style-type: none"> 1. Customer is viewing a product 2. Customer choose to add product to cart 3. System add products to cart
Alternate Course	
Exception	Exception 1: Lost database connection <ol style="list-style-type: none"> 1. Show server connection lost message 2. Return to the main page

2.11: Buy Products Description

Title	Content
Use Case Name	Buy Products
ID	UC04
Description	Customer buy products
Actor	Customer
Trigger	Customer confirms order
Preconditions	Customer is logged in
Postconditions	System create customer order
Main Course	<ol style="list-style-type: none"> 1. Customer view cart 2. Customer continue to checkout 3. Customer enter customer name, phone number, address and payment method 4. Customer confirm order 5. System create customer order
Alternate Course	AC1: Customer update cart before checkout <ol style="list-style-type: none"> 1. Customer view cart 2. Customer add or remove products from cart AC4: Customer cancel order <ol style="list-style-type: none"> 1. Customer choose cancel order 2. System doesn't create customer order
Exception	Exception 1: Customer order more than product quantity in stock <ol style="list-style-type: none"> 1. System display error 2. Customer can't create order

2.12: Manage Orders Description

Title	Content
Use Case Name	Manage Orders
ID	UC05
Description	Manager, admin manage orders
Actor	Manager, admin
Trigger	User select manage order
Preconditions	User is logged in
Postconditions	User can search/view details and update order status
Main Course	<ul style="list-style-type: none"> 1. User select manage orders 2. User search for orders 3. User select view order details 4. System display order details, customer details and items in order 5. User update order status
Alternate Course	
Exception	<p>Exception 1: Order has status canceled or paid</p> <ul style="list-style-type: none"> 1. User can't change order status <p>Exception 2: Order can't be change to the previous status</p>

2.13: Manage Products Description

Title	Content
Use Case Name	Manage Products
ID	UC06
Description	Manager, admin manage products
Actor	Manager, admin
Trigger	User select manage products
Preconditions	User is logged in
Postconditions	User can search/view/add/update/delete products depending on the role
Main Course	<ul style="list-style-type: none"> 1. User select manage products 2. User search and view product details 3. User update product details
Alternate Course	AC1: User is admin role <ul style="list-style-type: none"> 1. User can delete products AC1: User add new products <ul style="list-style-type: none"> 1. User choose add product 2. System create a draft product
Exception	Exception 1: Product has already been in an order <ul style="list-style-type: none"> 1. User can't delete the product

2.14: Manage Categories Description

Title	Content
Use Case Name	Manage Categories
ID	UC07
Description	Manager, admin manage categories
Actor	Manager, admin
Trigger	User select manage categories
Preconditions	User is logged in
Postconditions	User can view/add/edit/delete categories depending on the role
Main Course	<ul style="list-style-type: none"> 1. User select manage categories 2. User add/view categories 3. User select category 4. User update category details
Alternate Course	AC2: User is admin role <ul style="list-style-type: none"> 1. User can delete category
Exception	Exception 1: Category has subcategories in it <ul style="list-style-type: none"> 1. User can't delete that category

2.15: Manage Subcategories Description

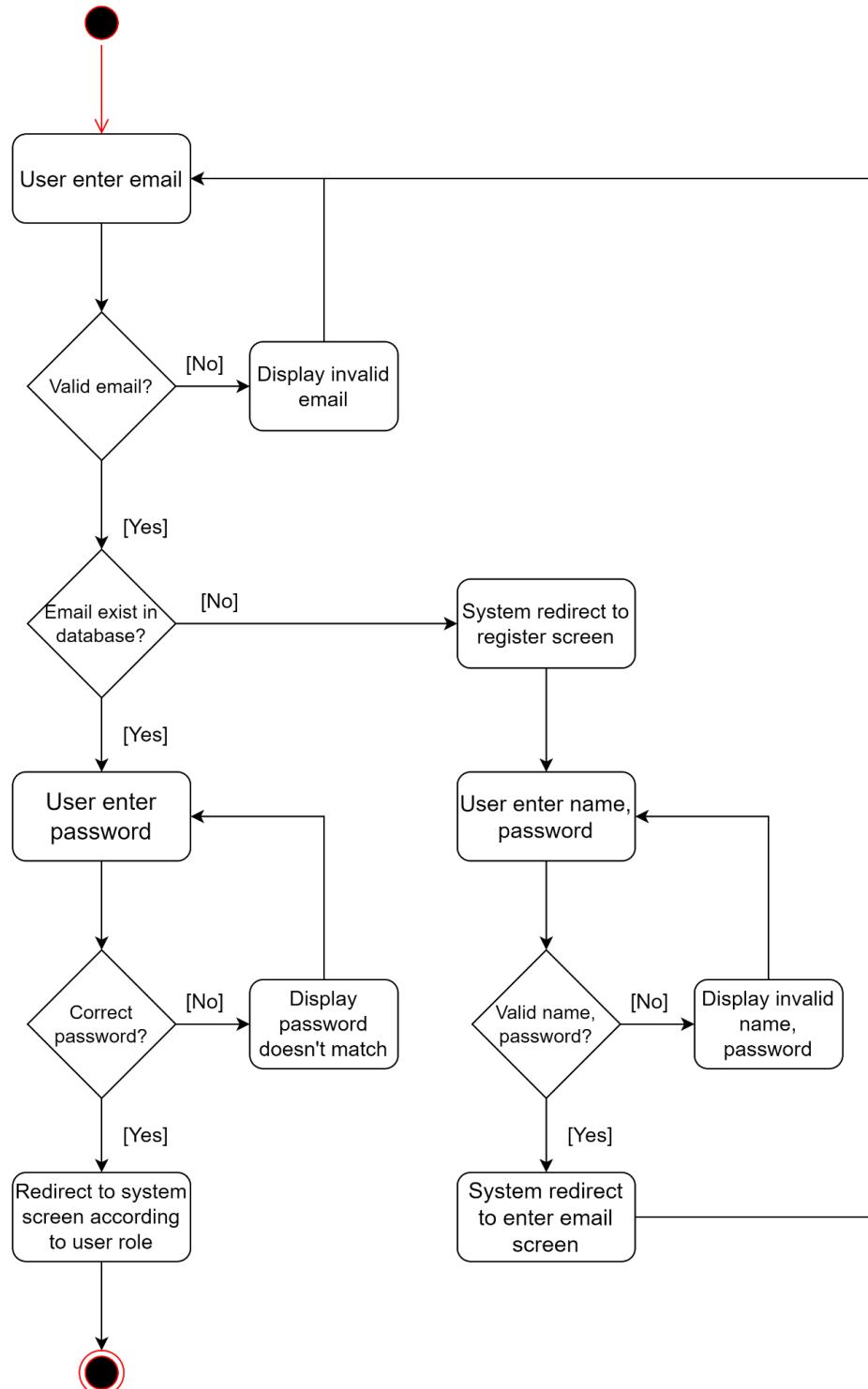
Title	Content
Use Case Name	Manage Subcategories
ID	UC08
Description	Manager, admin manage subcategories
Actor	Manager, admin
Trigger	User select manage subcategories
Preconditions	User is logged in
Postconditions	User can view/add/edit/delete subcategories depending on the role
Main Course	<ul style="list-style-type: none"> 1. User select manage categories 2. User add/view subcategories 3. User select subcategory 4. User update subcategory name
Alternate Course	AC2: User is admin role <ul style="list-style-type: none"> 1. User can delete subcategory
Exception	Exception 1: Subcategory has products in it <ul style="list-style-type: none"> 1. User can't delete that subcategory

2.12: Manage Users Description

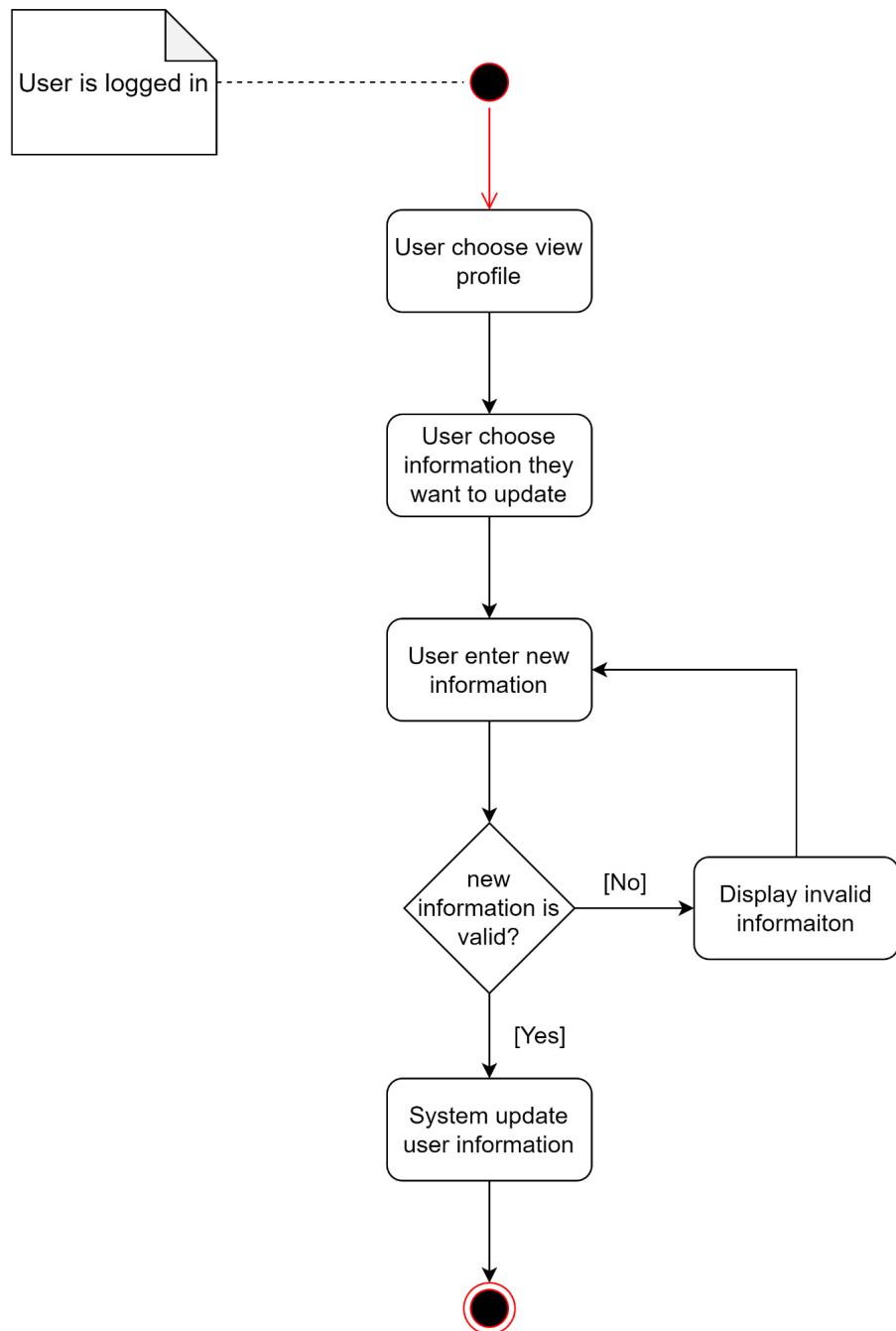
Title	Content
Use Case Name	Manage Users
ID	UC09
Description	Admin manage users
Actor	Admin
Trigger	Admin select manage users
Preconditions	User is logged in
Postconditions	Admin can search/view/add/update user
Main Course	<ul style="list-style-type: none"> 1. Admin select manage users 2. Admin add user 3. Admin enter user information 4. System create new user
Alternate Course	AC1: Admin update user <ul style="list-style-type: none"> 1. Admin choose update user 2. Admin update user information
Exception	Exception 1: Admin can't change user email or password

3. Activity Diagram:

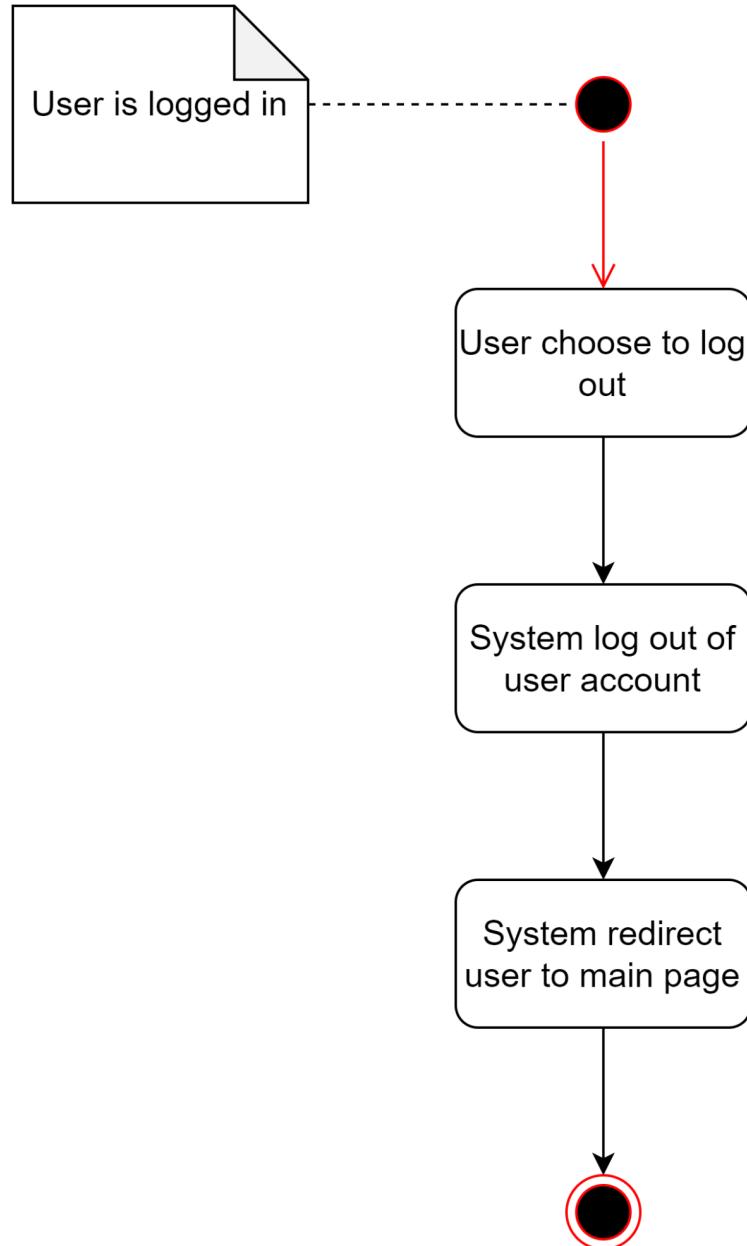
3.1: Login and register



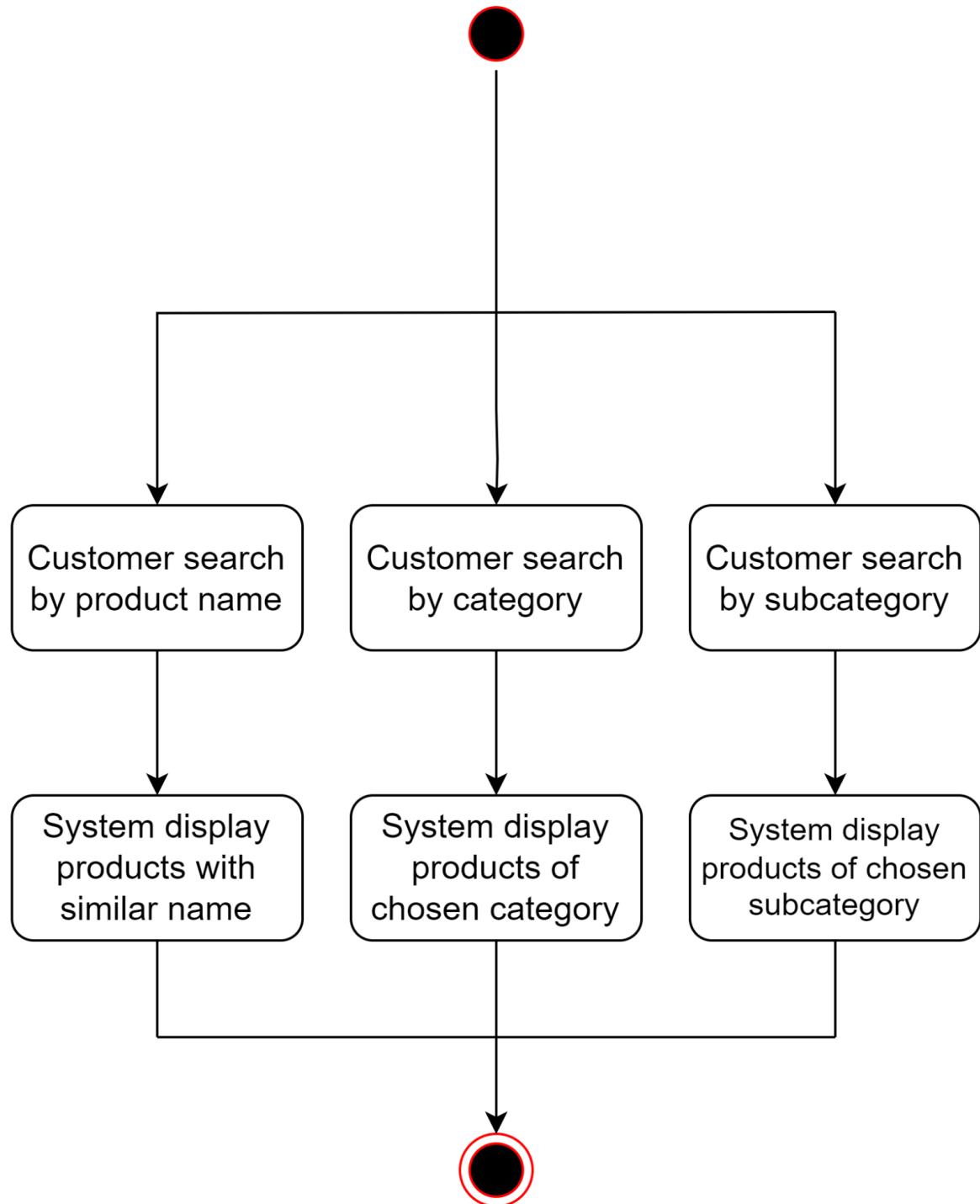
3.2: View and Update Profile



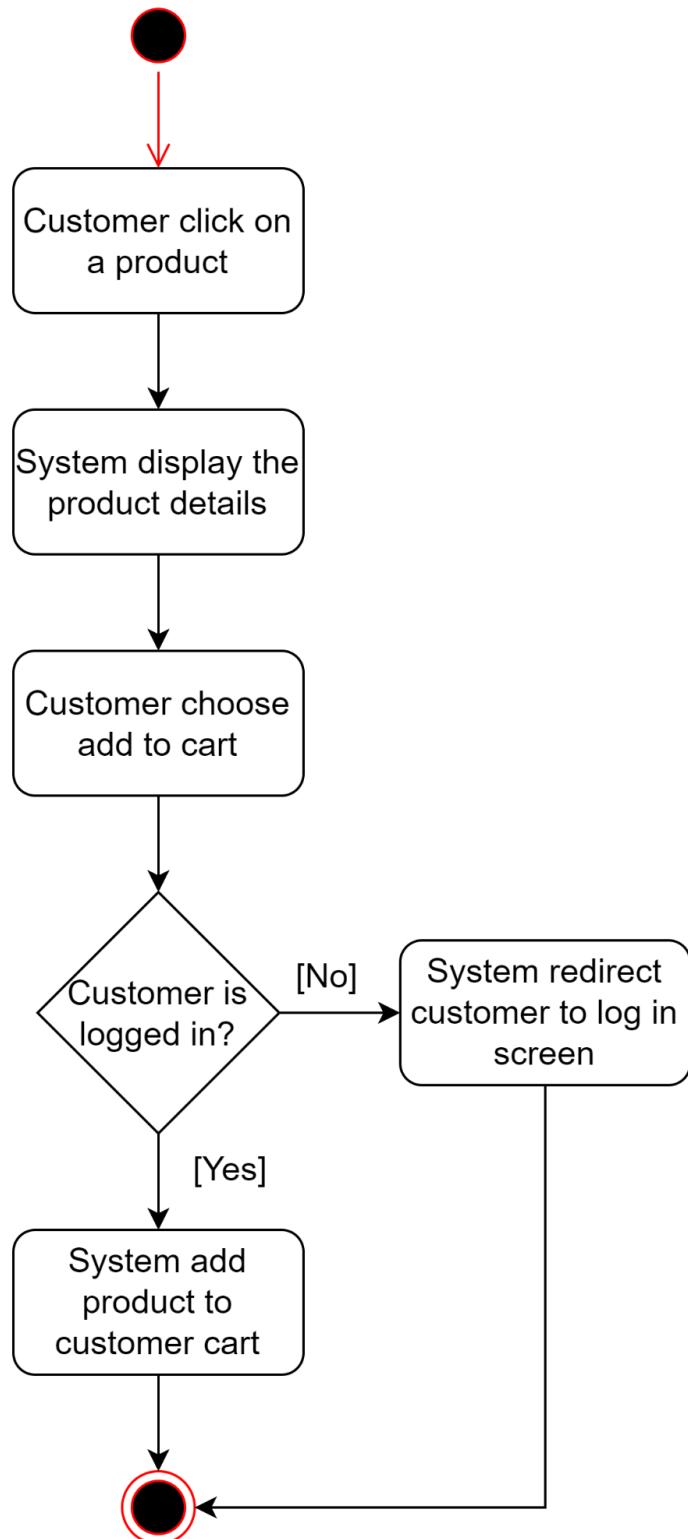
3.3: Log Out



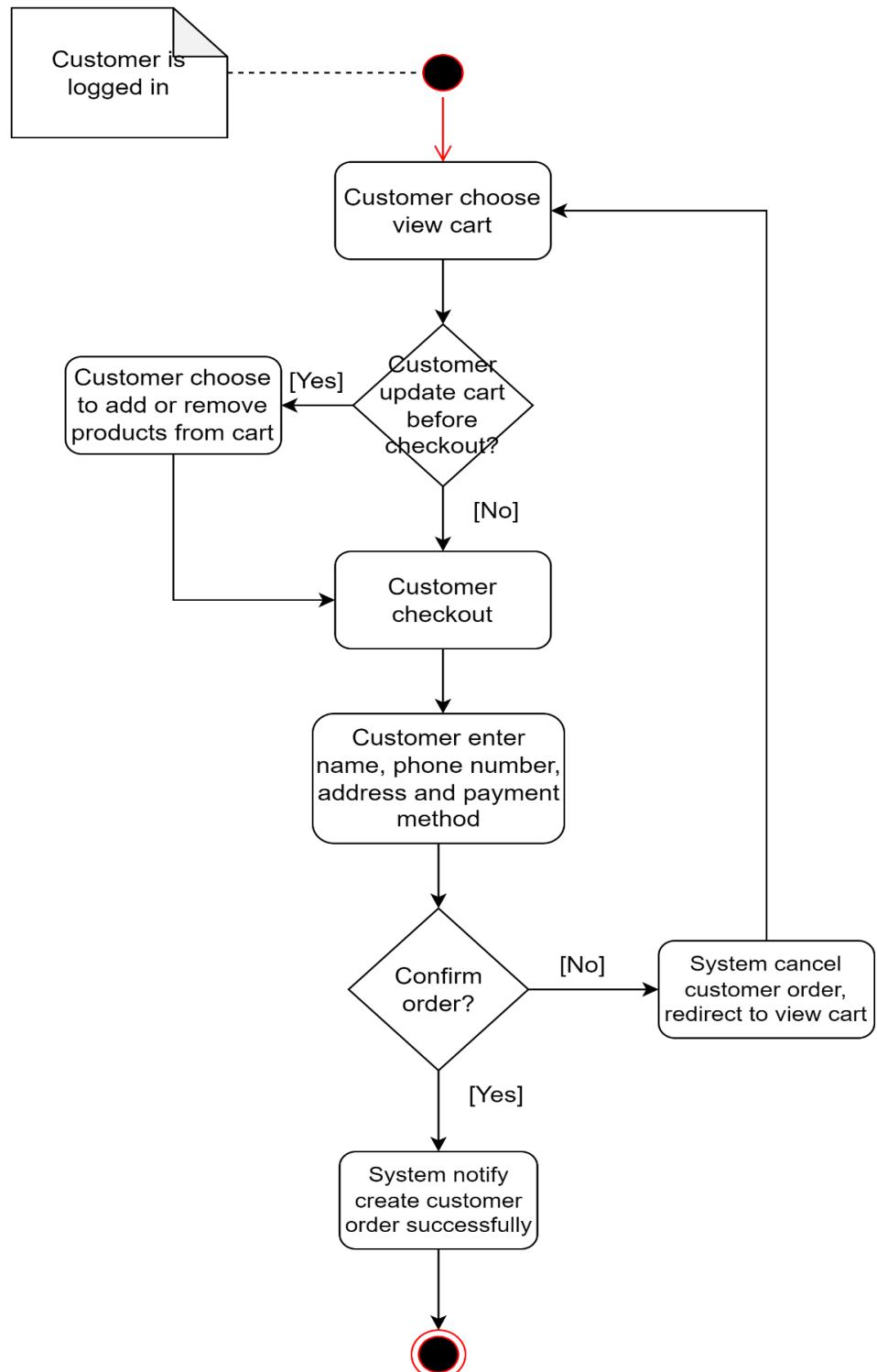
3.4: Search Product



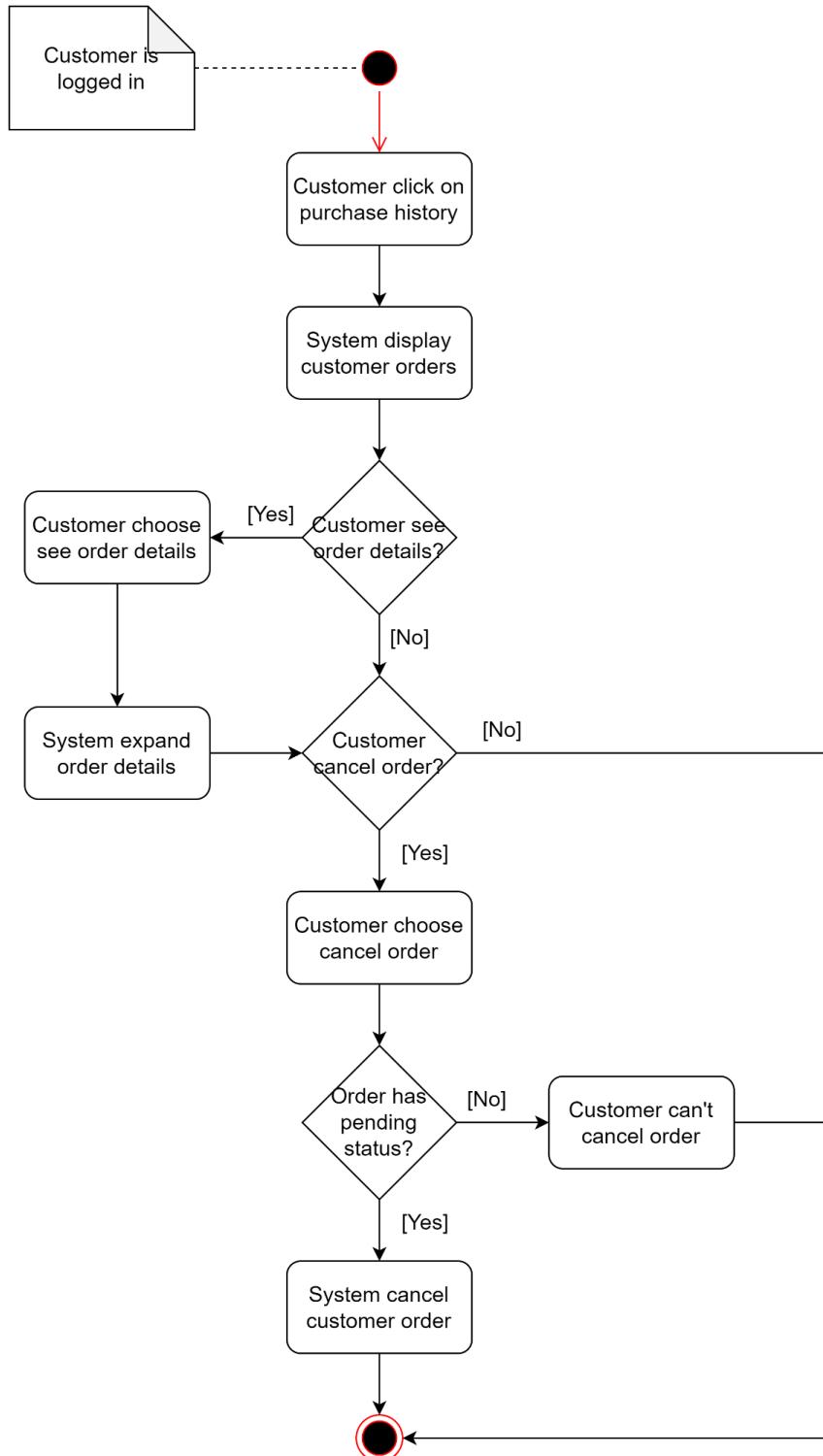
3.5: View Product Details and Add to Cart



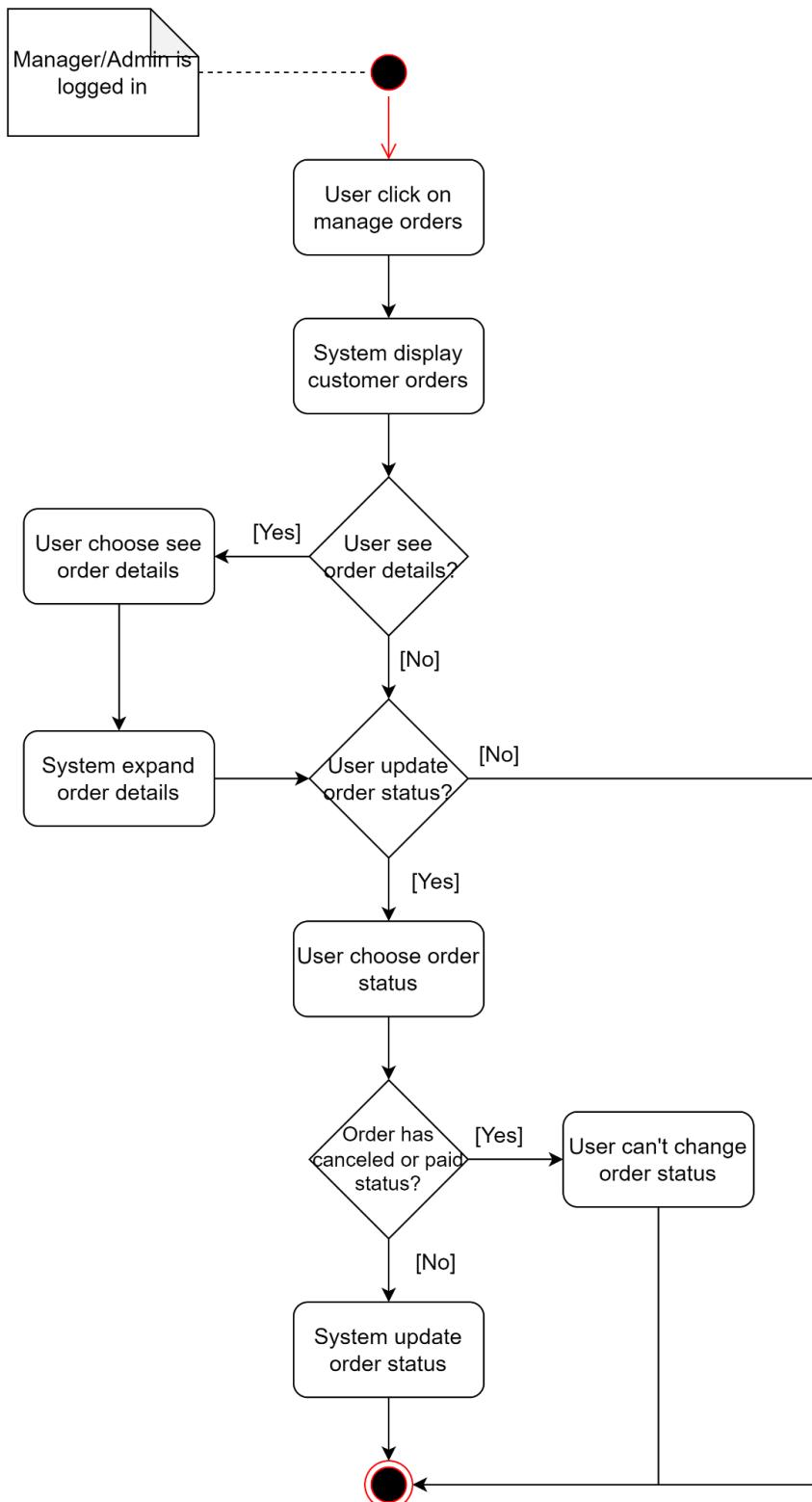
3.6: Buy Products



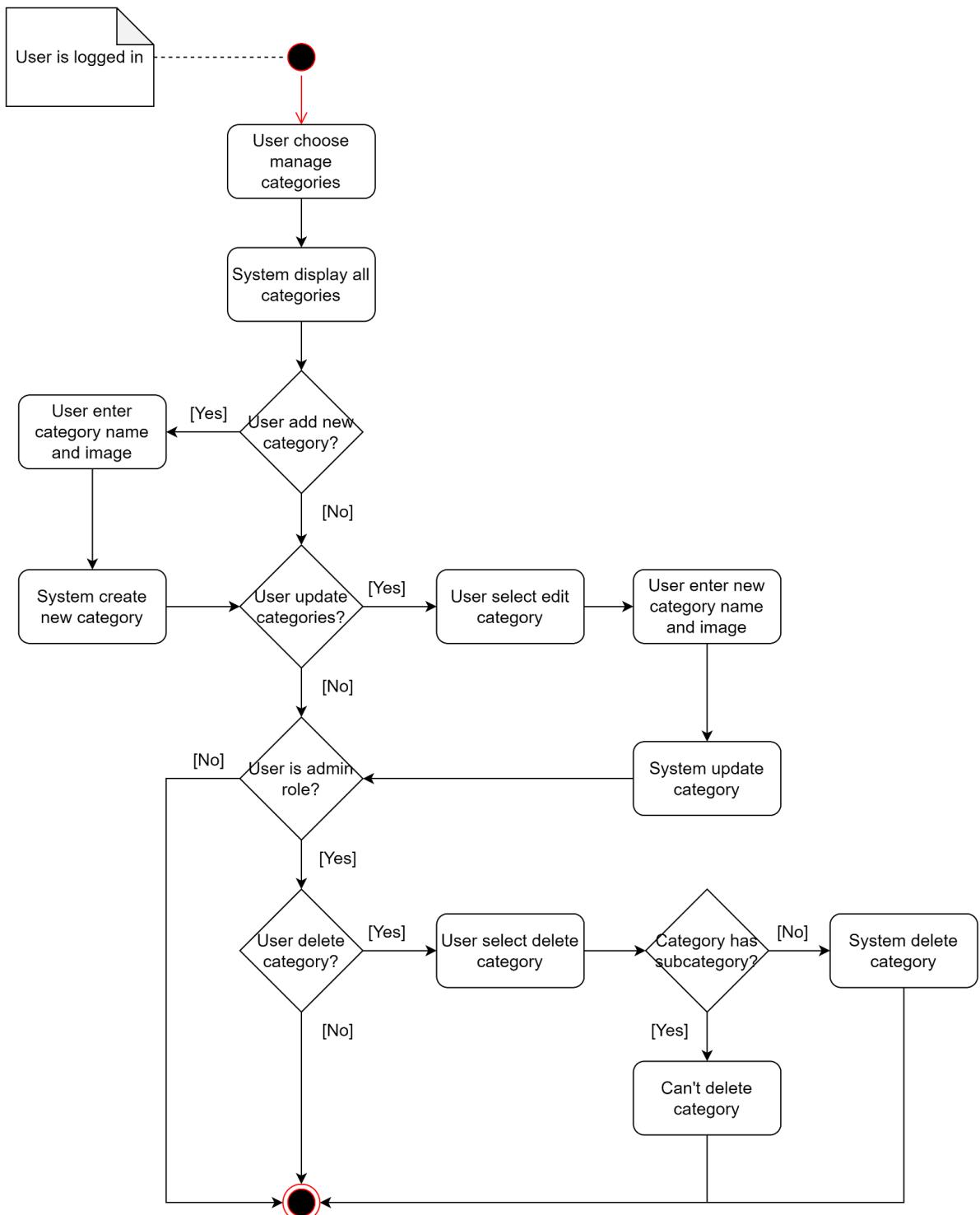
3.7: Cancel Order



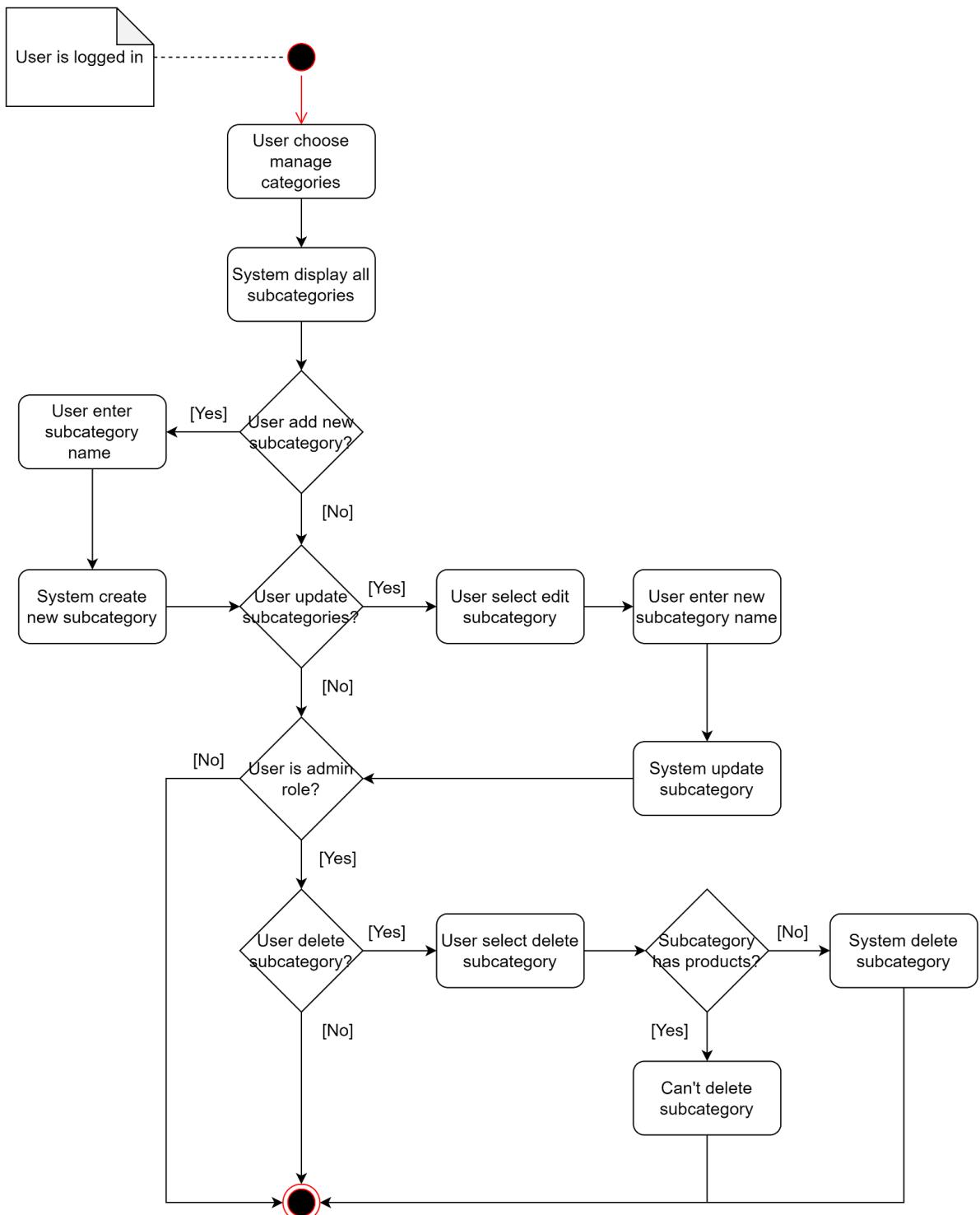
3.8: Manage Orders



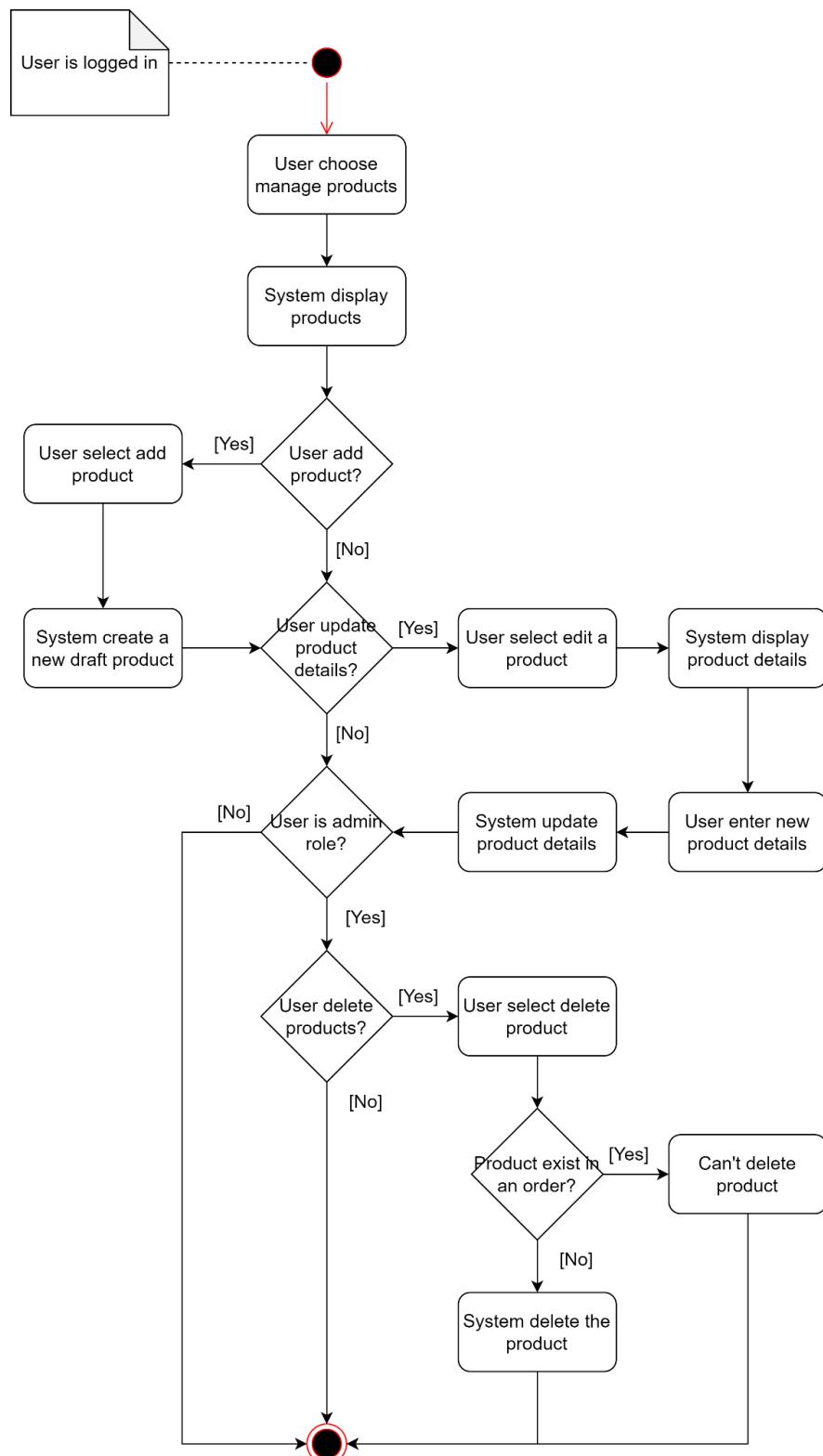
3.9: Manage Categories



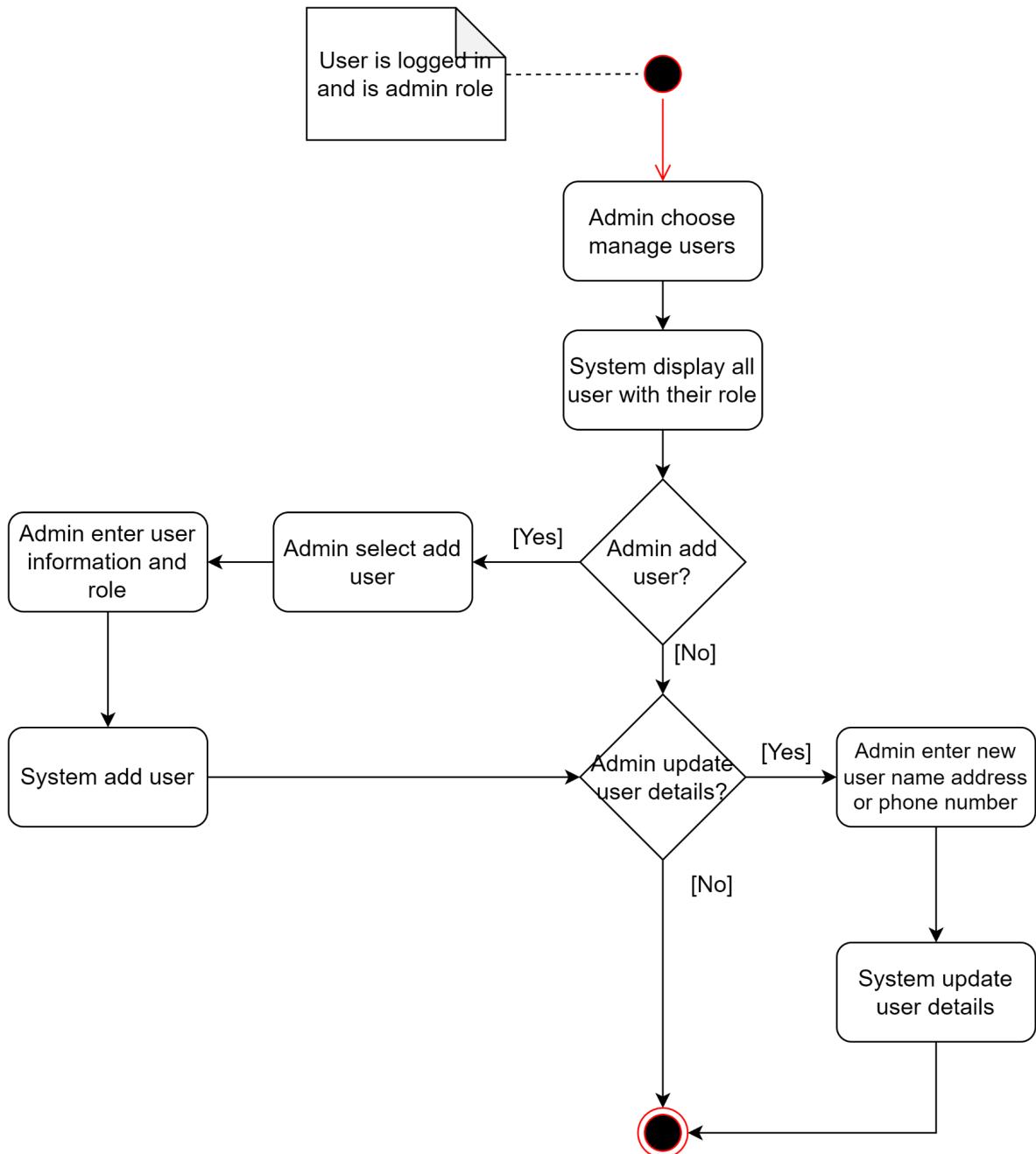
3.11: Manage Subcategories



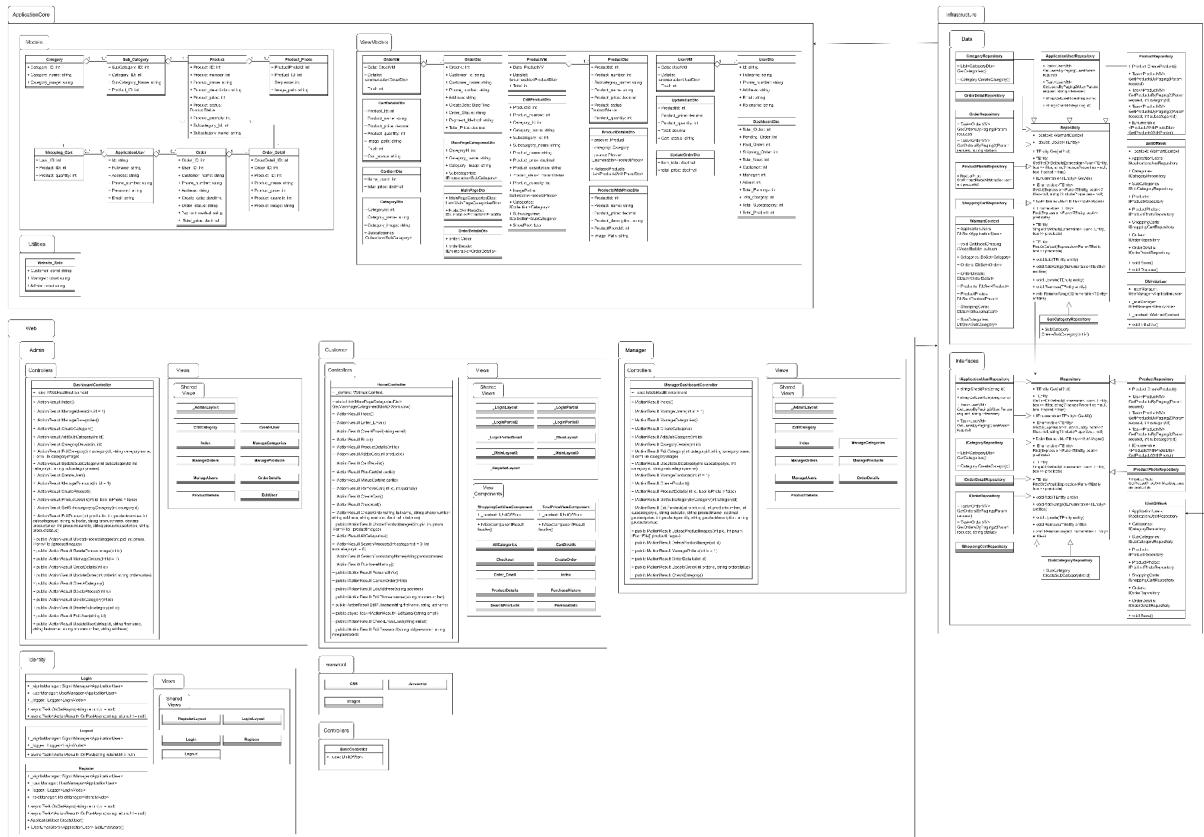
3.12: Manage Products



3.13: Manage Users



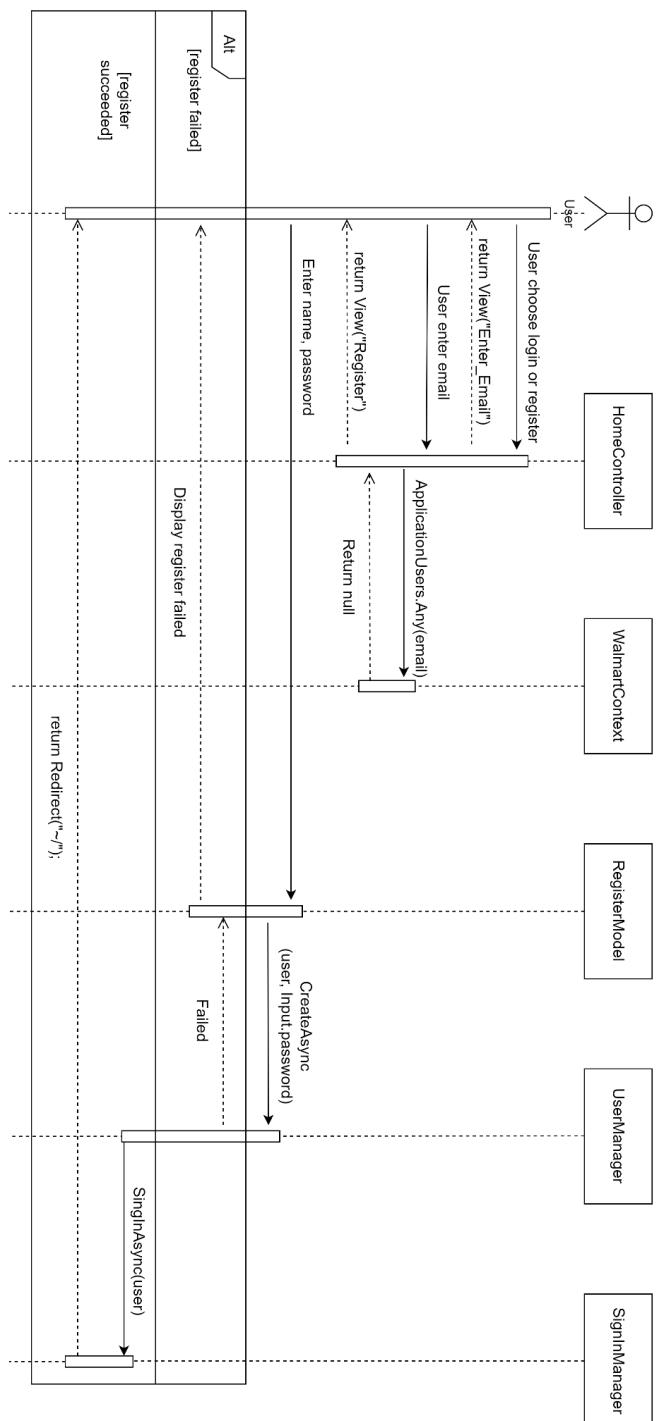
4. Class Diagram



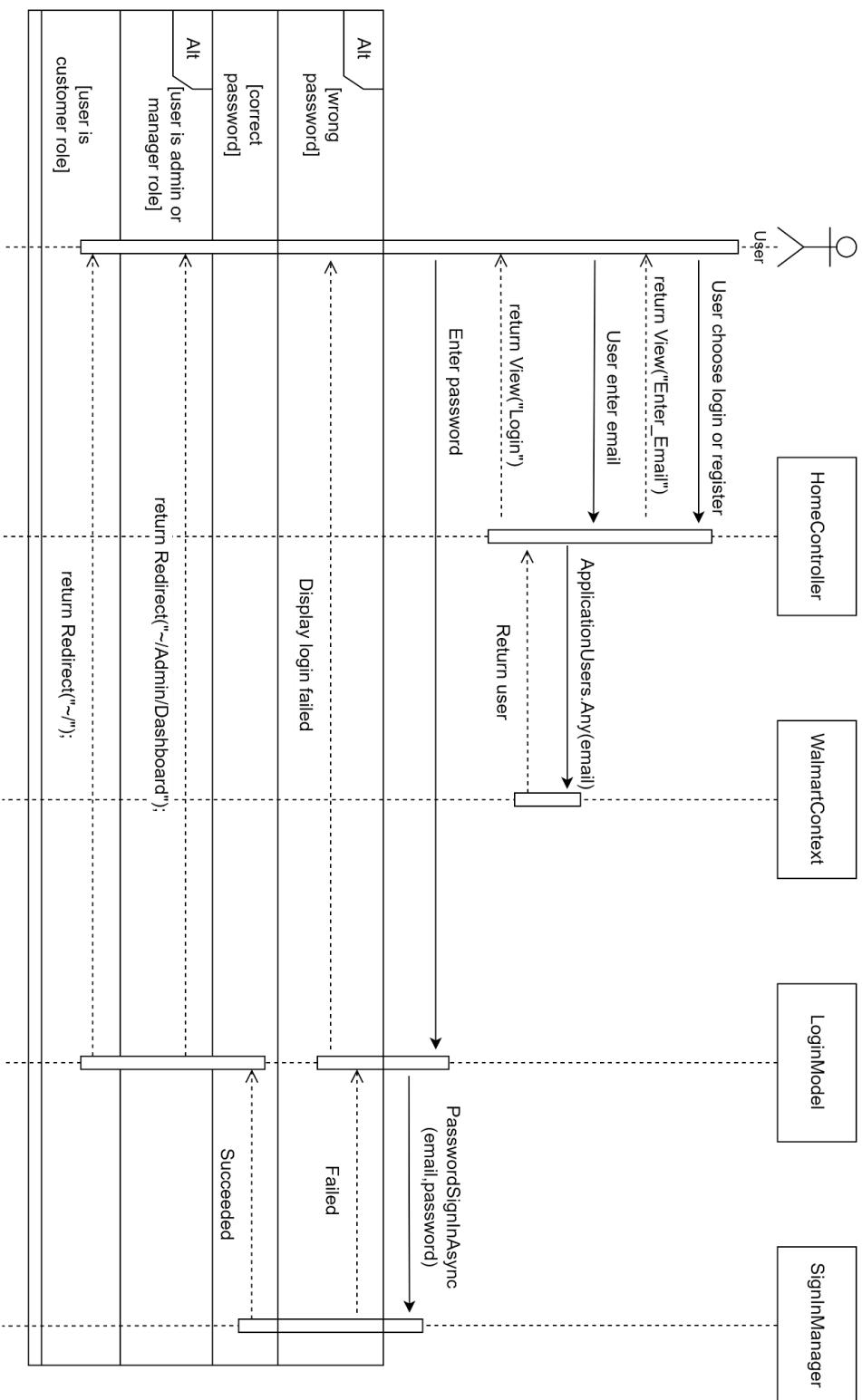
III. Design Details

1. Sequence Diagram:

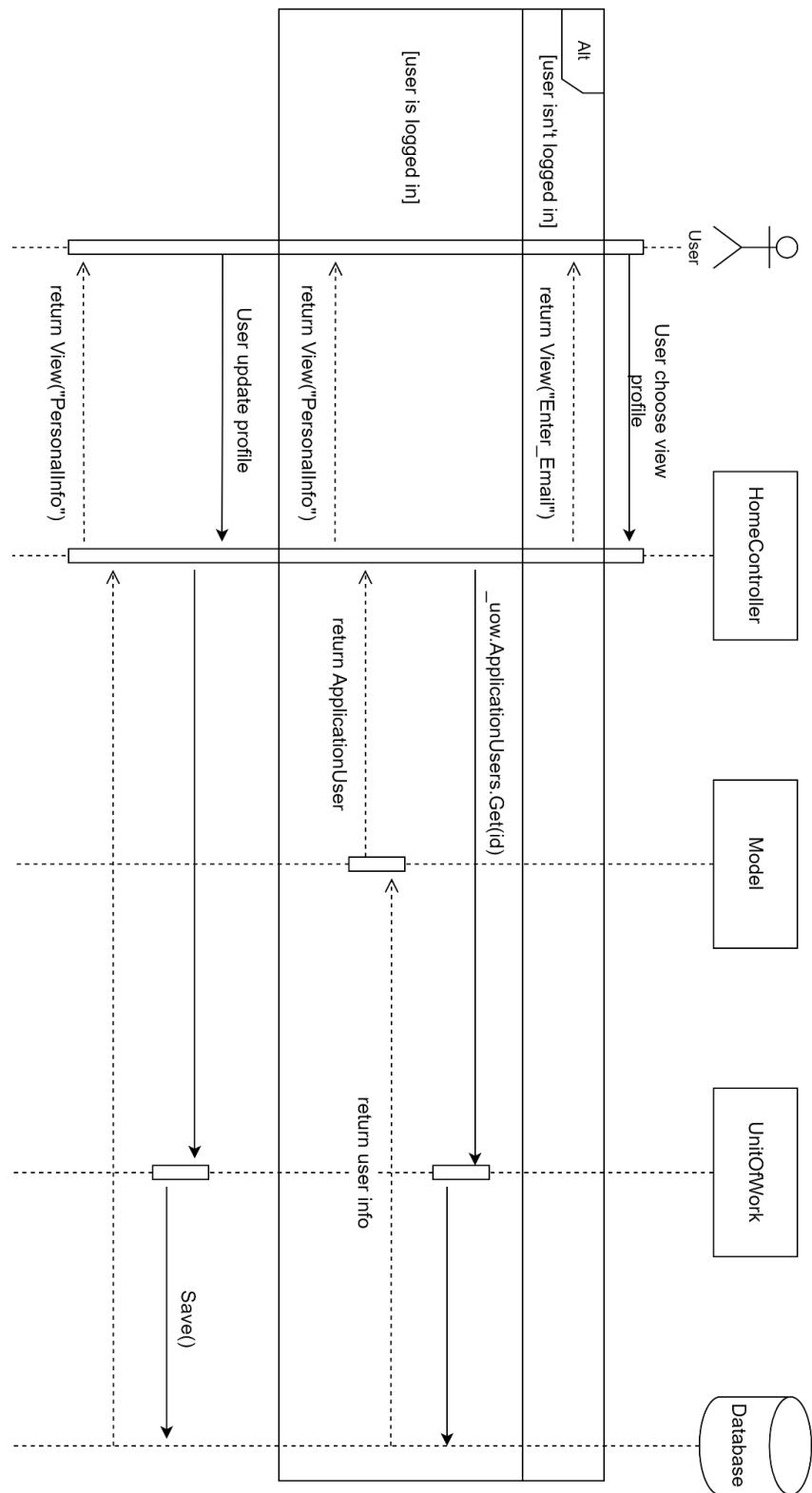
1.1: Register Sequence Diagram



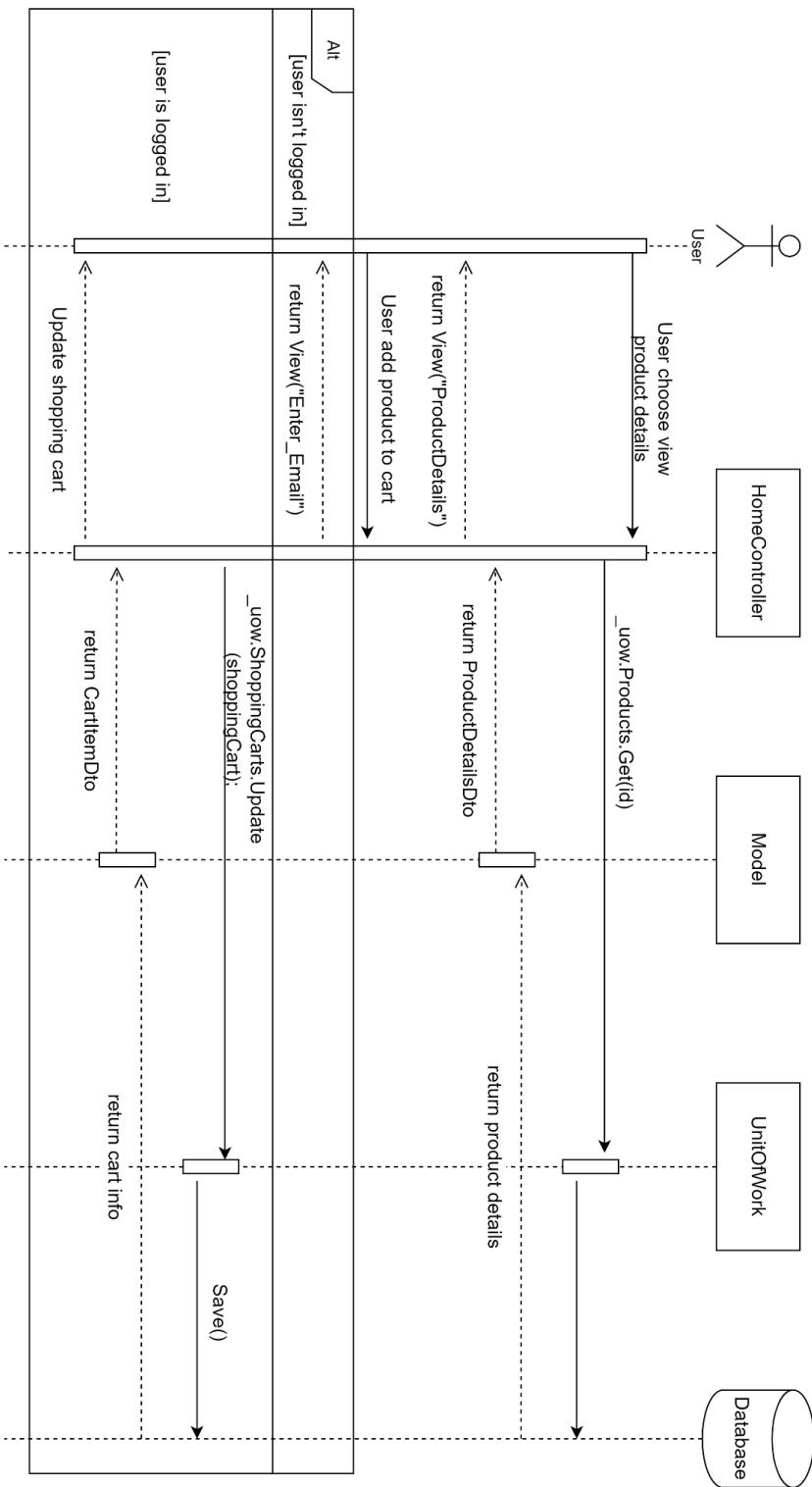
1.2: Login Sequence Diagram



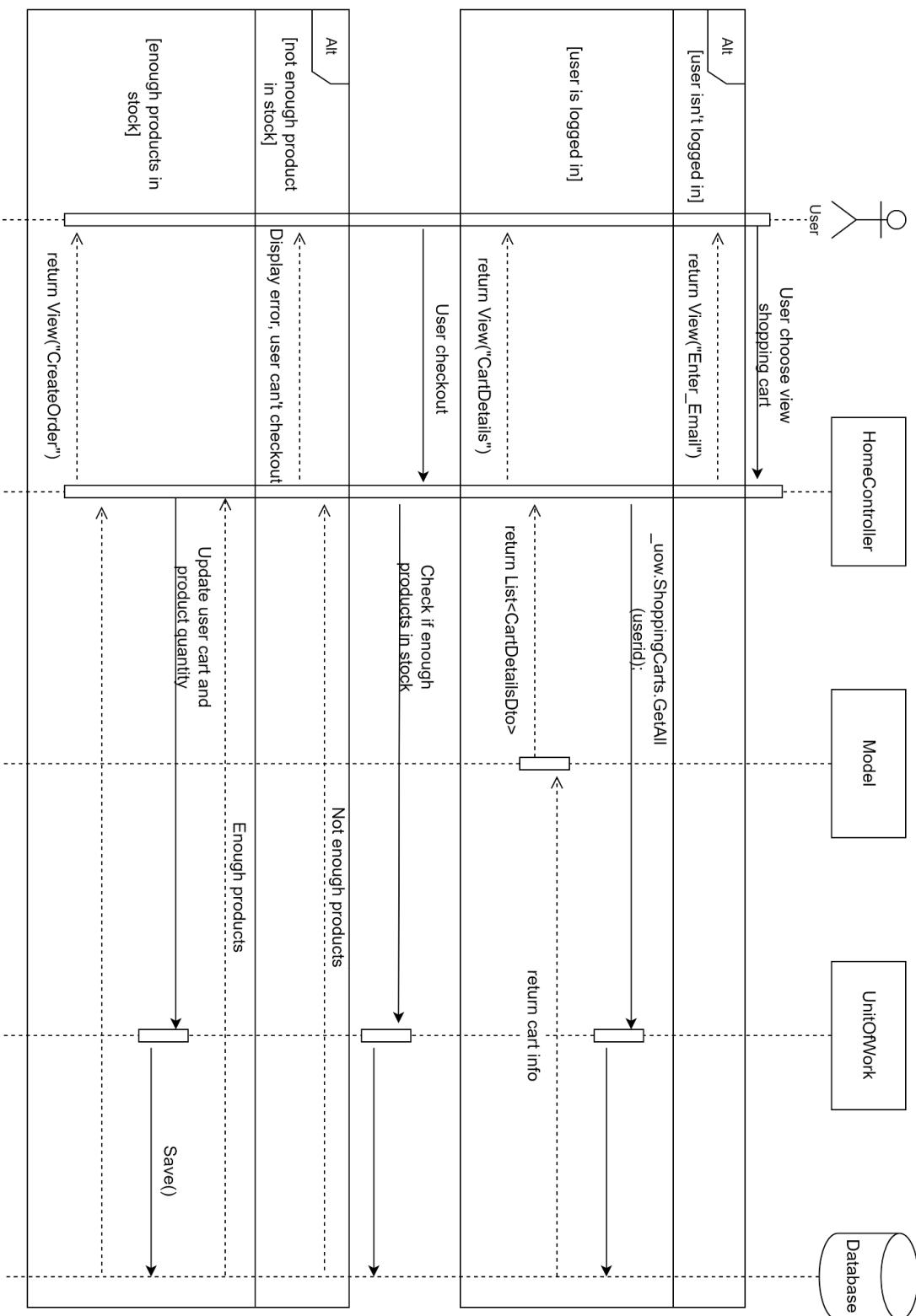
1.3: View and Update Profile Sequence Diagram



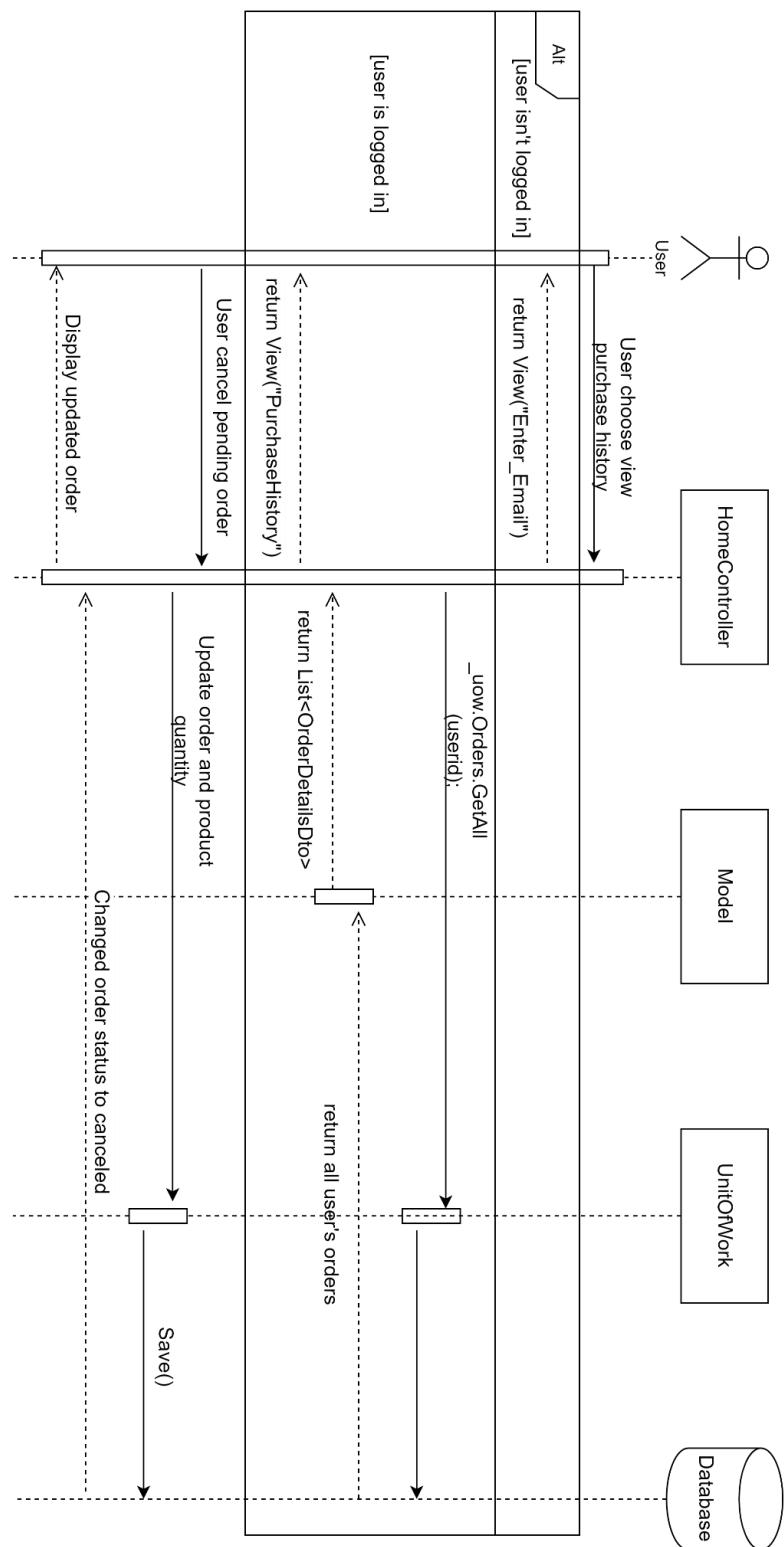
1.4: View Product Details and Add to Cart Sequence Diagram



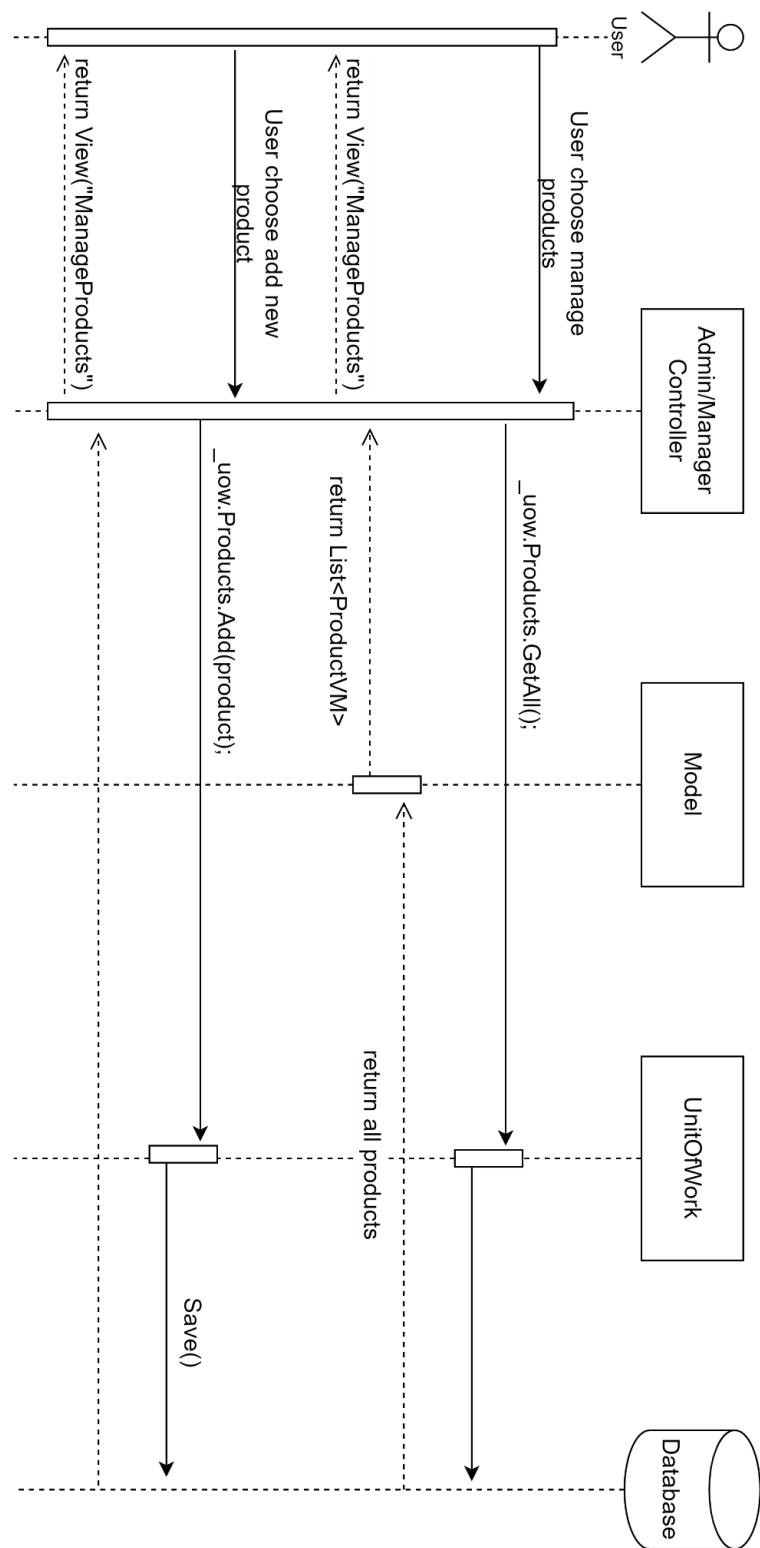
1.5: Buy Products Sequence Diagram



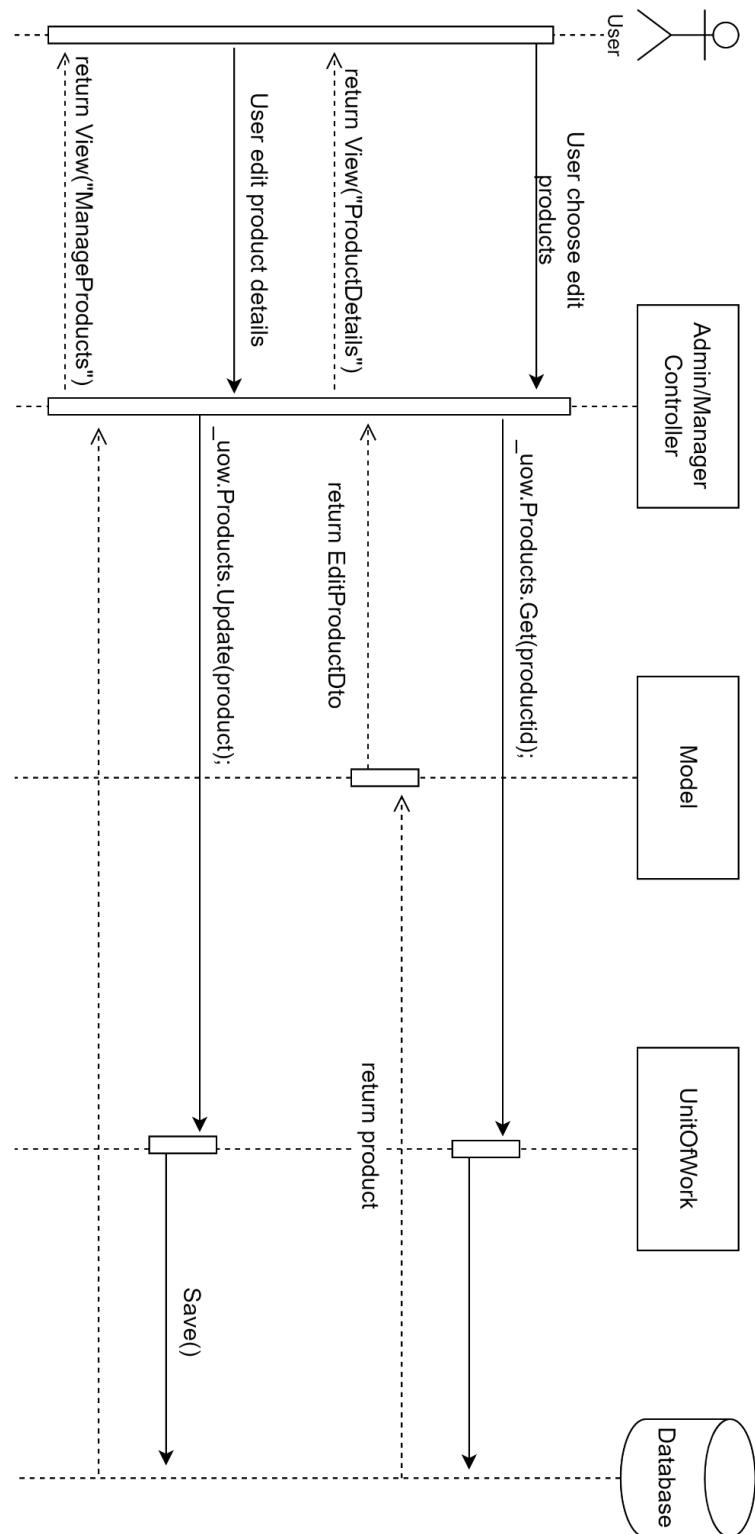
1.6: Cancel Order Sequence Diagram



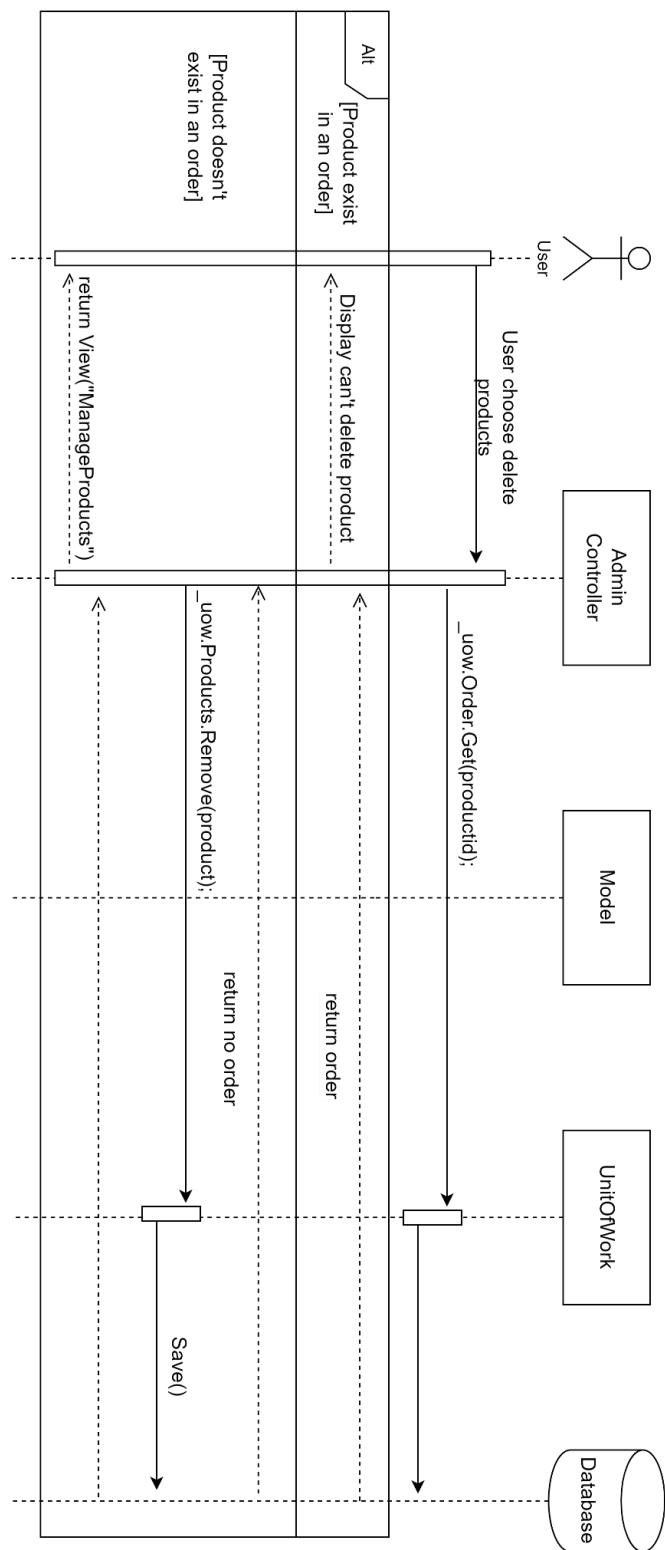
1.7: Add Product Sequence Diagram



1.8: Edit Product Sequence Diagram

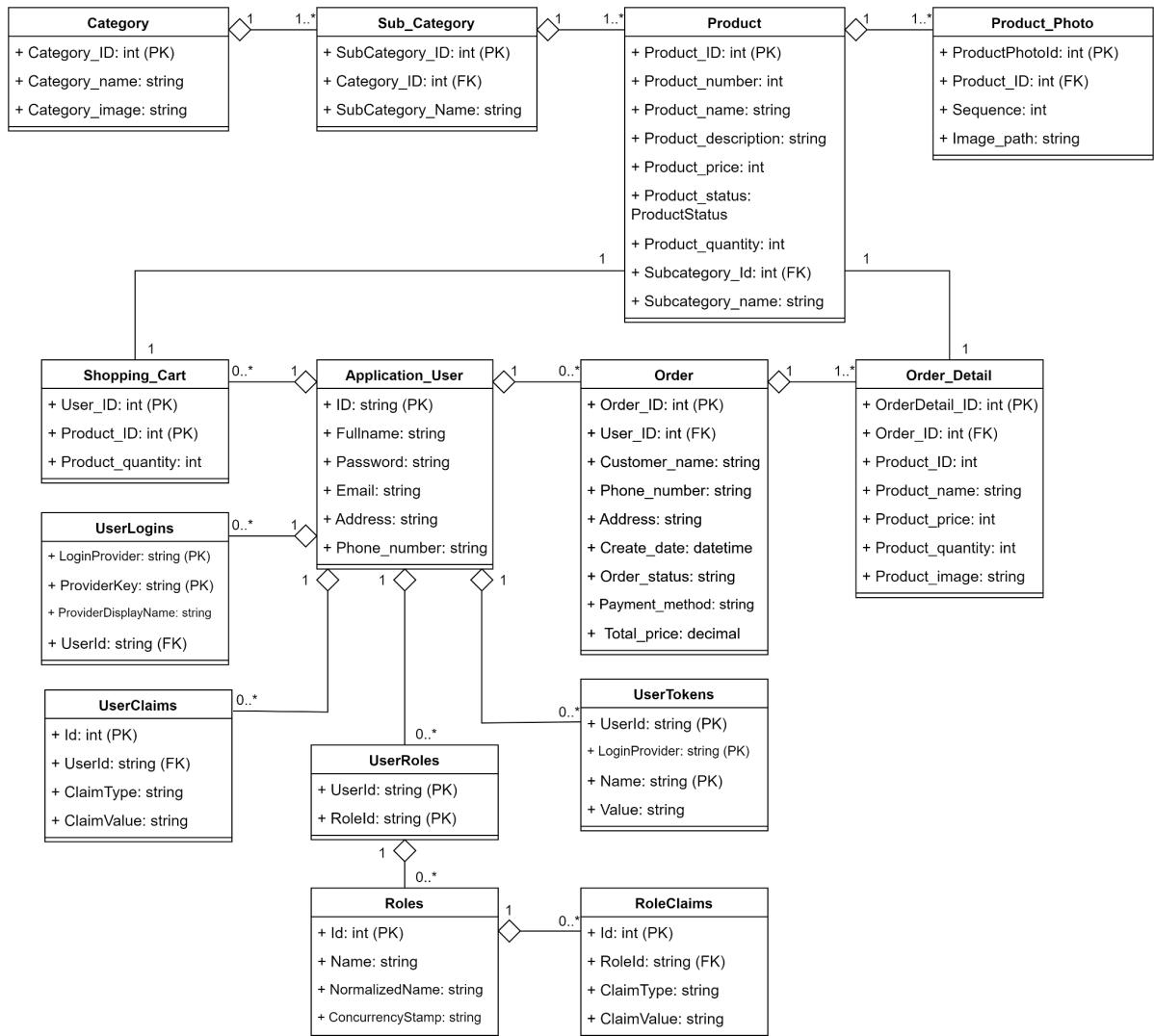


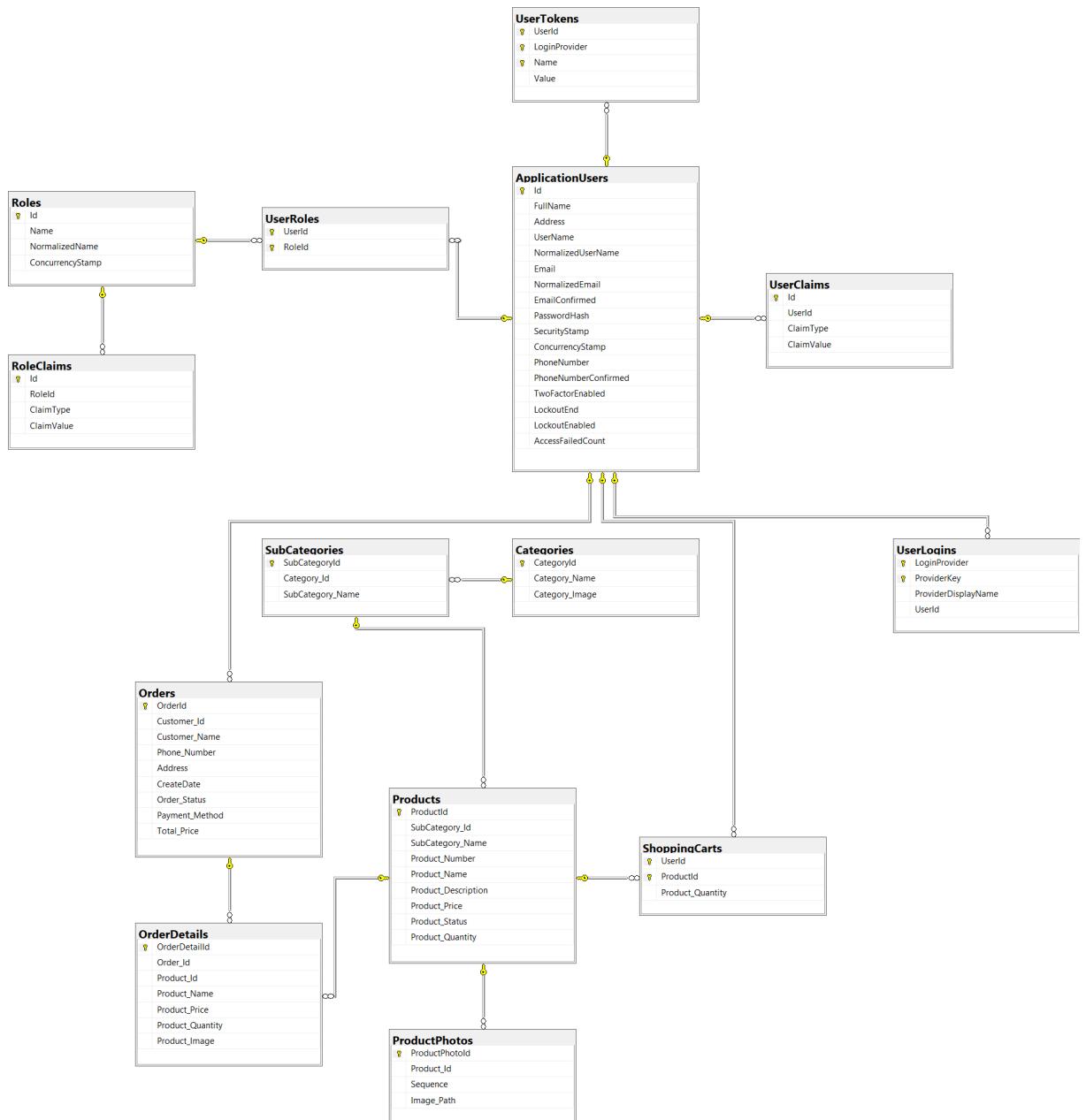
1.9: Delete Product



2. Database Design

2.1 Entity Relationship Diagram





2.2.1 EFMigrationHistory

__EFMigrationHistory			
Column Name	Data Type	Constraints	Description
MigrationId	NVARCHAR(150)	PRIMARY KEY, NOT NULL	ID
ProductVersion	NVARCHAR(32)	NOT NULL	

2.2.2 ApplicationUsers

ApplicationUsers			
Column Name	Data Type	Constraints	Description
Id	NVARCHAR(450)	PRIMARY KEY	
FullName	NVARCHAR(MAX)	NULL	
Address	NVARCHAR(MAX)	NULL	
UserName	NVARCHAR(256)	NULL	
NormalizedUserName	NVARCHAR(256)	NULL	
Email	NVARCHAR(256)	NULL	
NormalizedEmail	NVARCHAR(256)	NULL	
EmailConfirmed	BIT	NOT NULL	
PasswordHash	NVARCHAR(MAX)	NULL	
SecurityStamp	NVARCHAR(MAX)	NULL	
ConcurrencyStamp	NVARCHAR(MAX)	NULL	
PhoneNumber	NVARCHAR(MAX)	NULL	
PhoneNumberConfirmed	BIT	NOT NULL	
TwoFactorEnabled	BIT	NOT NULL	
LockoutEnd	datetimeoffset(7)	NULL	
LockoutEnabled	BIT	NOT NULL	
AccessFailedCount	INT	NOT NULL	

2.2.3 Categories

Categories			
Column Name	Data Type	Constraints	Description
CategoryId	INT	PRIMARY KEY, NOT NULL	
Category_Name	NVARCHAR(MAX)	NULL	
NormalizedName	NVARCHAR(MAX)	NULL	

2.2.4 OrderDetails

OrderDetails			
Column Name	Data Type	Constraints	Description
OrderDetailId	INT	PRIMARY KEY, NOT NULL	
Order_Id	INT	FOREIGN KEY	
Product_Id	INT	NOT NULL	
Product_Name	NVARCHAR(MAX)	NULL	
Product_Price	decimal(18, 2)	NOT NULL	
Product_Quantity	INT	NOT NULL	
Product_Image	NVARCHAR(MAX)	NULL	

2.2.5 Orders

Orders			
Column Name	Data Type	Constraints	Description
OrderId	INT	PRIMARY KEY, NOT NULL	
Customer_Id	NVARCHAR(450)	FOREIGN KEY, NOT NULL	
Customer_Name	NVARCHAR(MAX)	NULL	
Phone_Number	NVARCHAR(MAX)	NULL	
Address	NVARCHAR(MAX)	NULL	
CreateDate	datetime2(7)	NULL	
Order_Status	NVARCHAR(MAX)	NULL	
Payment_Method	NVARCHAR(MAX)	NULL	
Total_Price	decimal(18,2)	NULL	

2.2.6 ProductPhotos

ProductPhotos			
Column Name	Data Type	Constraints	Description
ProductPhotoid	INT	PRIMARY KEY, NOT NULL	
Product_Id	INT	FOREIGN KEY, NOT NULL	
Sequence	INT	NOT NULL	
Image_Path	NVARCHAR(MAX)	NULL	

2.2.7 Products

Products			
Column Name	Data Type	Constraints	Description
ProductId	INT	PRIMARY KEY, AUTO_INCREMENT, NOU NULL	
Subcategory_Id	INT	FOREIGN KEY, NOT NULL	
Subcategory_Name	NVARCHAR(MAX)	NOT NULL	
Product_Number	INT	NOT NULL	
Product_Name	VARCHAR(MAX)	NOT NULL	
Product_Description	VARCHAR(MAX)	NULL	
Product_Price	decimal(18, 2)	NOT NULL	
Product_Status	INT	NOT NULL	
Product_Quantity	INT	NOT NULL	

2.2.8 RoleClaims

RoleClaims			
Column Name	Data Type	Constraints	Description
Id	INT	PRIMARY KEY, NOT NULL	
RoleId	NVARCHAR(450)	FOREIGN KEY, NOT NULL	
ClaimType	NVARCHAR(MAX)	NULL	
ClaimValue	NVARCHAR(MAX)	NULL	

2.2.9 Roles

Roles			
Column Name	Data Type	Constraints	Description
Id	NVARCHAR(450)	PRIMARY KEY, NOT NULL	
Name	NVARCHAR(256)	NULL	
NormalizedName	NVARCHAR(256)	NULL	
ConcurrencyStamp	NVARCHAR(MAX)	NULL	

2.2.10 ShoppingCarts

ShoppingCarts			
Column Name	Data Type	Constraints	Description
UserId	NVARCHAR(450)	PRIMARY KEY, NOT NULL	
ProductId	INT	PRIMARY KEY, NOT NULL	
Product_Quantity	INT	NOT NULL	

2.2.11 Subcategories

OrderDetails			
Column Name	Data Type	Constraints	Description
Subcategory_Id	INT	PRIMARY KEY, NOT NULL	
Category_Id	INT	PRIMARY KEY, NOT NULL	
Subcategory_Name	NVARCHAR(MAX)	NOT NULL	

2.2.12 UserClaims

UserClaims			
Column Name	Data Type	Constraints	Description
Id	INT	PRIMARY KEY, NOT NULL	
UserId	NVARCHAR(450)	FOREIGN KEY, NOT NULL	
ClaimType	NVARCHAR(MAX)	NULL	
ClaimValue	NVARCHAR(MAX)	NULL	

2.2.13 UserLogins

UserLogins			
Column Name	Data Type	Constraints	Description
LoginProvider	NVARCHAR(128)	PRIMARY KEY, NOT NULL	
ProviderKey	NVARCHAR(128)	NOT NULL	
ProviderDisplayName	NVARCHAR(MAX)	NULL	
UserId	NVARCHAR(450)	FOREIGN KEY, NOT NULL	

2.2.14 UserRoles

UserRoles			
Column Name	Data Type	Constraints	Description
UserId	NVARCHAR(450)	PRIMARY KEY, NOT NULL	
RoleId	NVARCHAR(450)	PRIMARY KEY, NOT NULL	

2.2.15 UserTokens

UserTokens			
Column Name	Data Type	Constraints	Description
UserId	NVARCHAR(450)	PRIMARY KEY, NOT NULL	
LoginProvider	NVARCHAR(128)	PRIMARY KEY, NOT NULL	
Name	NVARCHAR(128)	PRIMARY KEY, NOT NULL	
Value	NVARCHAR(MAX)	NULL	

3. UI Design

3.1 Main Menu

The screenshot shows the homepage of the Walmart grocery store website. At the top, there's a search bar with placeholder text "Search everything at Walmart online and in-store". Below the search bar are links for "Shop Address", "5TH East Ave", "Austin Supercenter", "Hi, Sign In", "Account", and "View cart". The main content area features a large banner with the text "The deals are finally here!" and a photo of a meal. To the right of the banner is a section titled "Deals for days" showing a "Mainstays 3 Pack Adjustable 24" or 29" Bronze Ladder for \$87.68. Below the banner are sections for "Reserve pickup or deliveries" and "Popular services" (Pharmacy, Auto Care Center, Custom Cases). There are also three rows of promotional boxes for "New deals, right here" in categories like fashion, toys, and home. A "Build your cart" section follows, displaying items like a patio furniture set, a laptop, and meat. Below that is a "Get a head start & save" section with four circular "Gift finder" options for her, him, and kids. Further down are sections for "Your favorite departments" (Clothing, Shoes & Accessories, Toys, Home, Electronics, Grocery, Sports & Outdoors, Health & Wellness, Pet & Garden) and "For you" (laptop, MyQuil, Halls, meat). At the bottom, there's a feedback section and a footer with links to various Walmart policies and programs.

3.2 Personal Information

The screenshot shows the Walmart Personal Info page. At the top, there's a navigation bar with the Walmart logo, search bar, and account information for 'Hi, Nhan N'. Below the navigation, a sidebar on the left lists 'Purchase History' and 'Account'. The main content area is titled 'Personal Info' and contains sections for 'Your personal information' with fields for 'Full Name' (Nhien Nguyen), 'Email' (nhiennguyen3999@gmail.com), 'Phone Number' (0967835585), 'Address', and 'Password' (*****). Each field has an 'Edit' link next to it. At the bottom of the page, there's a footer with links like 'All Departments', 'Store Directory', 'Careers', etc., and a copyright notice: '© 2022 Walmart. All Rights Reserved'.

3.3 Purchase History

The screenshot shows the Walmart website's Purchase History page. At the top, there is a navigation bar with links for Departments, Services, a search bar, and account information for 'Hi, Nhien N Account' with a shopping cart icon showing 0 items.

The main content area displays two purchase history entries:

- June 1, 2023** (Order #8): Total Price: \$436.68 (2 Items)
 - Mainstays 3 Pack Adjustable 24" or 29" Bronze Ladder Back Swivel Barstool, Tan Microfiber Seat: \$87.68
 - HP 14" Laptop, Intel Core i5-1135G7, 8GB RAM, 256GB SSD, Natural Silver, Windows 11 Home, 14-dq207wm: \$349.00
- May 31, 2023** (Order #7): Total Price: \$20.00 (1 Item)
 - Madden NYC Charm Chain Crossbody Bag with Removable Pouch: \$20.00

Below the purchase history, there are sections for Order Info and Customer Info, along with links to Show details and Show more details.

At the bottom of the page, there is a footer with links to various Walmart services and policies.

3.4 All Categories

The screenshot shows the Walmart homepage with a blue header bar. On the left is the Walmart logo and navigation links for 'Departments' and 'Services'. A search bar is in the center, followed by a yellow search icon. To the right are account details ('Hi, Nhien N') and a shopping cart icon showing '0 \$0.00'. Below the header, a banner says 'How do you want your items? Sacramento, 95829 Sacramento Supercenter'. A 'Browse Departments' section follows, featuring nine categories in a 3x3 grid:

- Clothing, Shoes & Accessories**: Sub-categories include Women, Men, Kids, Bags & Accessories, and New SubCategory. An image shows a blue jacket and plaid skirt.
- Toys**: Sub-category Action Figures. An image shows a box of LEGO bricks.
- Home**: Sub-category Furniture. An image shows a grey armchair.
- Electronics**: Sub-category Laptops. An image shows a laptop screen.
- Grocery**: Sub-category Meat & Seafood. An image shows a bottle of Simply Orange juice.
- Sports & Outdoors**: Sub-category Basketball. An image shows a Wilson NBA basketball.
- Health & Wellness**: Sub-category Vitamins & Supplements. An image shows a bottle of Goli Immune Vitamin C.
- Patio & Garden**: Sub-category Patio Furniture. An image shows a white wicker chair with a cushion.

At the bottom of the page is a dark footer bar with links to various Walmart services and policies, including 'All Departments', 'Store Directory', 'Careers', 'Our Company', 'Sell on Walmart.com', 'Help', 'COVID-19 Vaccine Scheduler', 'Product Recalls', 'Accessibility', 'Tax Exempt Program', 'Get the Walmart App', 'Sign-up for Email', 'Safety Data Sheet', 'Terms of Use', 'Privacy & Security', 'CA Private Rights', 'California Supply Chain Act', 'Do Not Sell My Personal Information', and 'Request My Personal Information #IYWK'. The footer also includes the text '© 2022 Walmart. All Rights Reserved'.

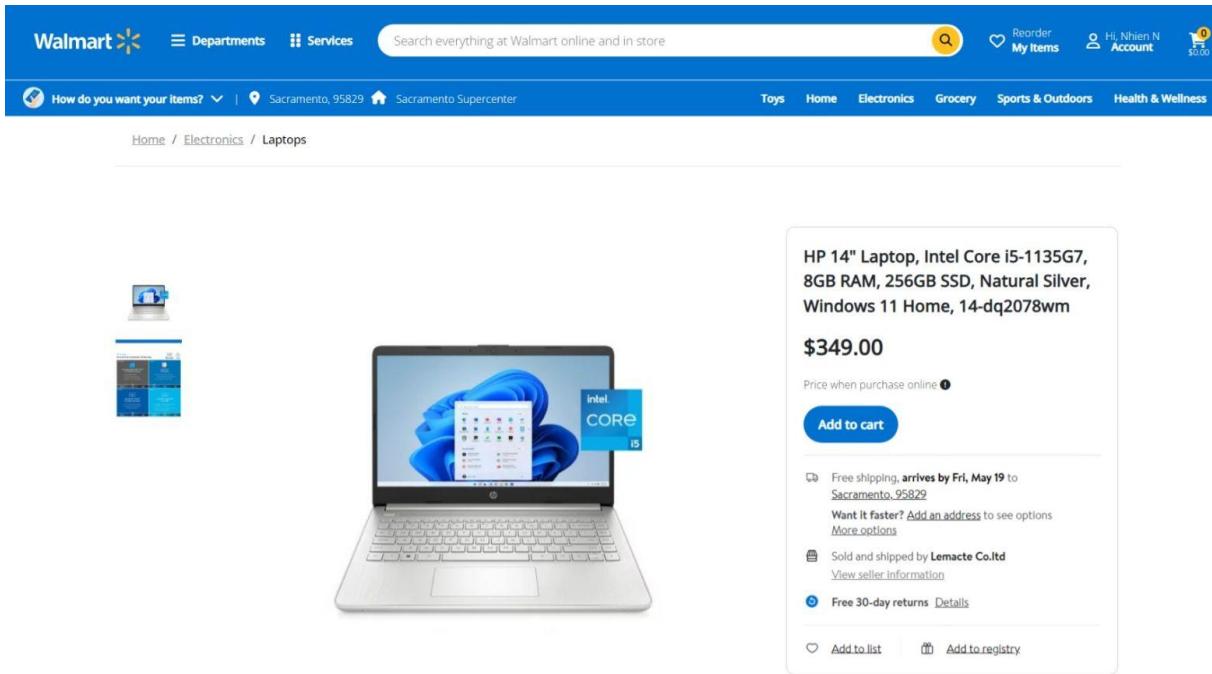
3.5 Search Products

The screenshot shows the Walmart website's search results page for the query "a". The results are displayed in a grid format with five items per row.

Product Image	Price	Description	Add-to-Basket Button
	\$87.68	Mainstays 3 Pack Adjustable 24" or 29"	+ Add
	\$349.00	HP 14" Laptop, Intel Core i5-1135G7, 8GB RAM, 512GB SSD	+ Add
	\$6.73	All Natural*, 93% Lean/7% Fat, Lean Ground Beef	+ Add
	\$19.97	Spalding Super Tack Pro Indoor and Outdoor	+ Add
	\$189.99	Costway 4PCS Patio Rattan Furniture Set Conversation	+ Add
	\$20.00	Madden NYC Charm Chain Crossbody Bag with	+ Add

At the bottom of the page, there is a footer navigation bar with links to various Walmart services and policies.

3.6 Product Details



The screenshot shows a product detail page for an HP 14" Laptop. The product image is centered, showing the laptop from a front-three-quarter angle. To the left is a smaller image showing the laptop's thin profile. To the right is a detailed description of the product, including its specifications: Intel Core i5-1135G7, 8GB RAM, 256GB SSD, Natural Silver, Windows 11 Home, and model number 14-dq2078wm. The price is listed as \$349.00. Below the price are shipping details, seller information, and return policy. At the bottom of the page, there are links for 'Add to list' and 'Add to registry'.

About this item

Product details

HP 14" Laptop with micro-edge BrightView HD display.
Windows 11 Home, 11th Generation Intel Core i5-1135G7 Processor, Intel Iris Xe Graphics.
8GB RAM, 256GB PCIe NVMe M.
2 solid-state drive.
Up to 11 hours and 30 minutes video playback battery, Wi-Fi 5 and Bluetooth.
HP True Vision Camera, HP Fast Charge, tuned stereo speakers.

Similar items you might like



\$249.00
Acer Chromebook 315,
15.6" HD, Intel Celeron

[Options](#)

All Departments | Store Directory | Careers | Our Company | Sell on Walmart.com | Help | COVID-19 Vaccine Scheduler | Product Recalls | Accessibility | Tax Exempt Program
Get the Walmart App | Sign-up for Email | Safety Data Sheet | Terms of Use | Privacy & Security | CA Private Rights | California Supply Chain Act | Do Not Sell My Personal Information
Request My Personal Information | #IYWK

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3.7 Shopping Cart

The screenshot shows the Walmart shopping cart interface. At the top, there's a navigation bar with links for Departments, Services, a search bar, and a user account section for 'Hi, Nhan N'.

The main area displays the cart summary: "Cart (2 Items)". Below this, two items are listed:

- HP 14" Laptop**: Intel Core i5-1135G7, 8GB RAM, 256GB SSD, Natural Silver, \$349.00. It includes a delivery note: "Free shipping, arrives Thu, May 18–Tue, May 30" and a delivery address: "6TH East Ave".
- Madden NYC Charm Chain Crossbody Bag with Removable Pouch**: Price: \$20.00.

Each item has a "Remove" button and a quantity selector (- 1 +). To the right of the cart summary, there's a "Continue to checkout" button and a breakdown of the total cost:

Subtotal (2 items)	\$369.00
Savings	None
Shipping	Free
Taxes	Calculated at checkout
Estimated total	\$369.00

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CA Private Rights

Your Privacy Choices

Request My Personal Information

California Supply Chains Act

3.8 Checkout

< **Checkout**

 1. Shipping, arrives by Fri, Jun 2 ✓

Order information

Full Name
Nhien Nguyen

Phone Number
0967835585

Address
Enter address

Items details

	HP 14" Laptop, Intel Core i5-1135G7, 8GB RAM, 256GB SSD, Natural Silver, Windows 11 Home, 14-dq2078wm	\$349.00
	Price: \$349.00	
	Quantity: 1	
	Madden NYC Charm Chain Crossbody Bag with Removable Pouch	\$20.00
	Price: \$20.00	
	Quantity: 1	

Subtotal (2 items) \$369.00

Savings None

Shipping Free

Taxes Calculated at checkout

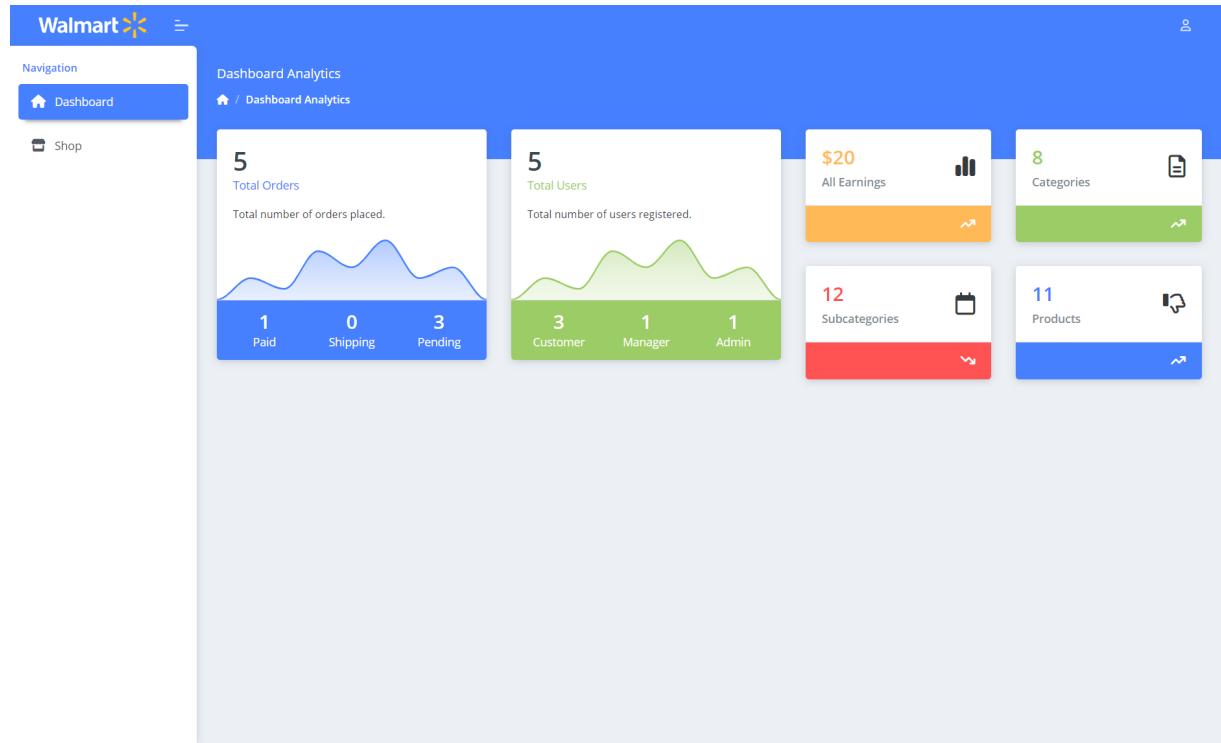
Estimated total \$369.00

 2. Payment method ✓

COD (Cash on delivery)

Confirm Order

3.9 Dashboard



3.10 Manage Users

USER ID	FULLNAME	EMAIL	PHONE NUMBER	ADDRESS	ROLE	ACTION
a7aaa302-d494-420a-8599-4a6e0a69972c	Elena Fisher	nhiennnguyen1999@gmail.com			Customer	
4e7c3f78-2b61-4c19-8a25-b51454263cb3	Sam Drake	nhiennnguyen2999@gmail.com	0967835555	America	Manager	
38ade24f-11e5-47f6-bdff-b56190faeeb9	Nhien Nguyen	nhiennnguyen3999@gmail.com	0967835585		Admin	

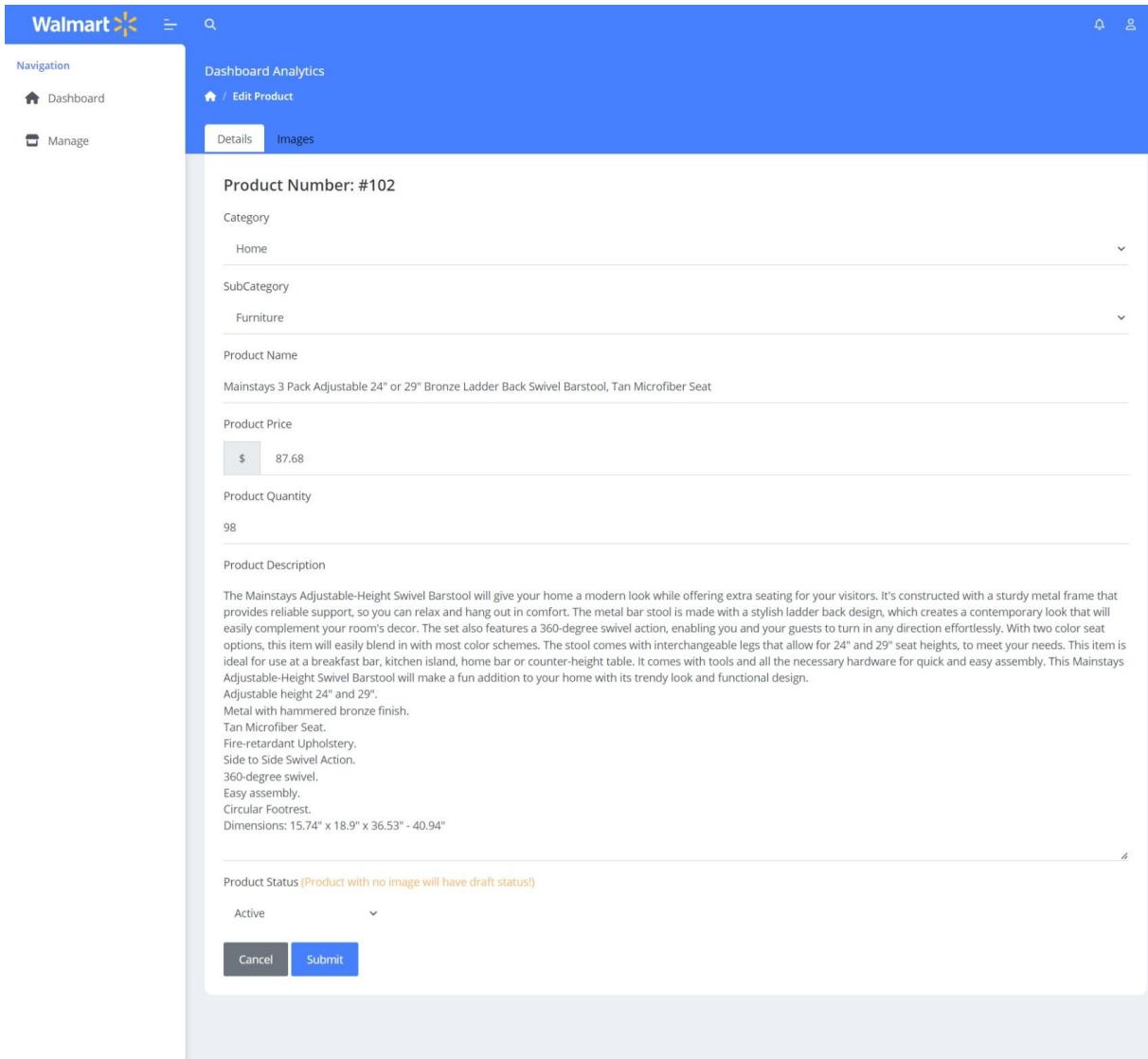
3.11 Manage Categories

The screenshot shows the 'Manage Categories' section of the Walmart website. On the left, a sidebar menu under 'Manage' includes options for Dashboard, Users, Categories, Products, and Orders. The main area displays a grid of categories:

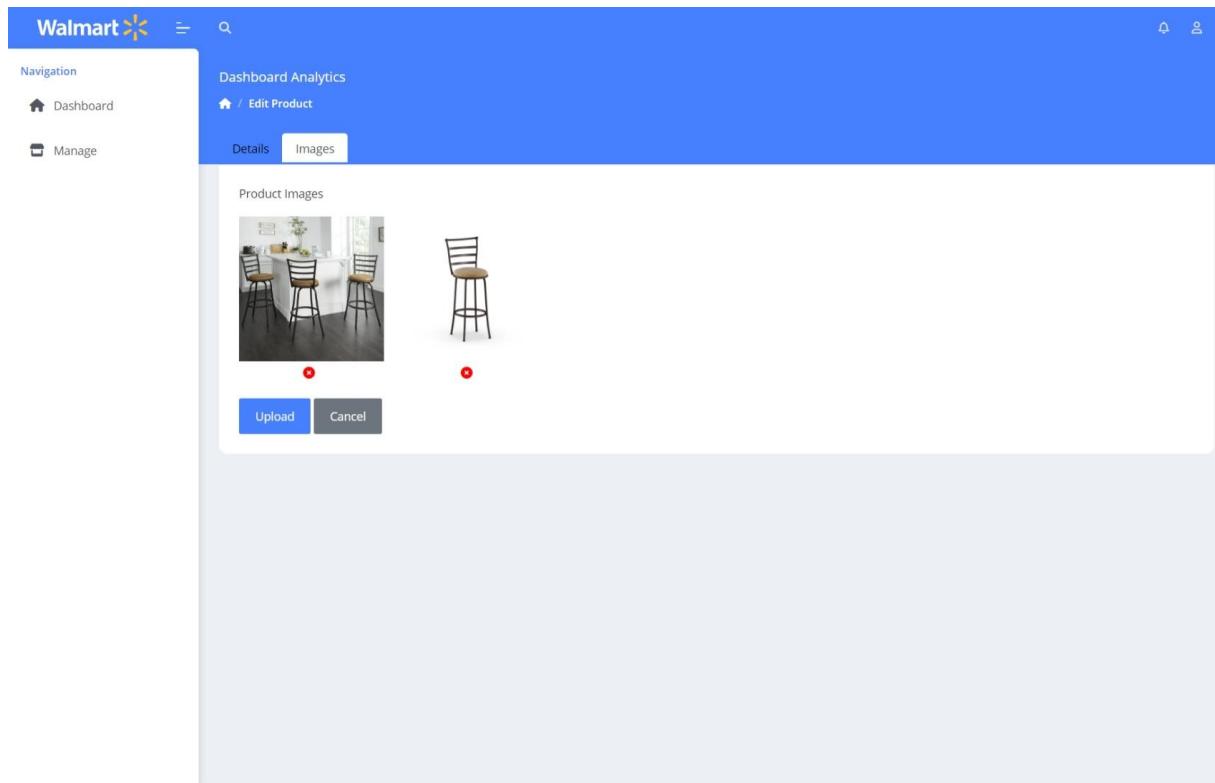
- Clothing, Shoes & Accessories**: Sub-categories include Women, Men, Kids, Bags & Accessories, and New SubCategory. An image of a blue jacket and a dress is shown.
- Toys**: Sub-category Action Figures. An image of colorful building blocks is shown.
- Home**: Sub-category Furniture. An image of a grey armchair is shown.
- Electronics**: Sub-category Laptops. An image of a laptop screen is shown.
- Grocery**: Sub-category Meat & Seafood. An image of a bottle of Simply Orange juice is shown.
- Sports & Outdoors**: Sub-category Basketball. An image of a Wilson basketball is shown.
- Health & Wellness**: Sub-category Vitamins & Supplements. An image of a bottle of goli Immune supplement is shown.
- Patio & Garden**: Sub-category Patio Furniture. An image of a white wicker chair is shown.

A 'Create Category' button is located in the top right corner of the main content area.

3.12 Manage Products



The screenshot shows the Walmart Product Management interface. The top navigation bar includes the Walmart logo, a search bar, and user account icons. The left sidebar has a 'Navigation' section with 'Dashboard' and 'Manage' options, and a 'Details' tab is currently selected. The main content area displays product details for a Mainstays 3 Pack Adjustable 24" or 29" Bronze Ladder Back Swivel Barstool, Tan Microfiber Seat. The product number is #102. The category is Home > Furniture. The product name is Mainstays 3 Pack Adjustable 24" or 29" Bronze Ladder Back Swivel Barstool, Tan Microfiber Seat. The price is \$87.68. The quantity is 98. The product description includes features like a 360-degree swivel action, interchangeable legs for 24" and 29" seat heights, and a tan microfiber seat. The status is set to 'Active'. At the bottom are 'Cancel' and 'Submit' buttons.



3.13 Manage Orders

The screenshot shows the Walmart Order Details page. The left sidebar has 'Navigation' with 'Dashboard' and 'Manage'. The main area has 'Dashboard Analytics' and 'Order Details'. The 'Order Info' section shows Order ID: #7, Create Date: 5/31/2023 11:09:09 PM, Payment Method: COD, and Order Status: Pending. The 'Customer Info' section shows Customer ID: #38ade24f-11e5-47f6-bdff-b56190faeeb9, Customer Name: Nhien Nguyen, Phone Number: 0967835585, and Address: Vietnam. The 'Order Items' section lists a single item: Madden NYC Charm Chain Crossbody Bag with Removable Pouch, Price: \$20.00, and Quantity: 1. Below it, the Total Price is \$20.00. A dropdown menu for 'Update order status' is open, showing 'Pending'. At the bottom are 'Cancel' and 'Update' buttons.

IV. Test

1.1 Test Checkout

Test Case Number	TC01
Test Case Name	CheckoutTC1
Test Case Description	Check product quantity before checkout
Preconditions	User has items in shopping cart
Test Case Input	Items in cart
Test Case Expected Output	Enter order information form
Test Case Steps	<ol style="list-style-type: none"> 1. Cart Details 2. Checkout
Test Result	Display enter order information form

1.2 Test create order

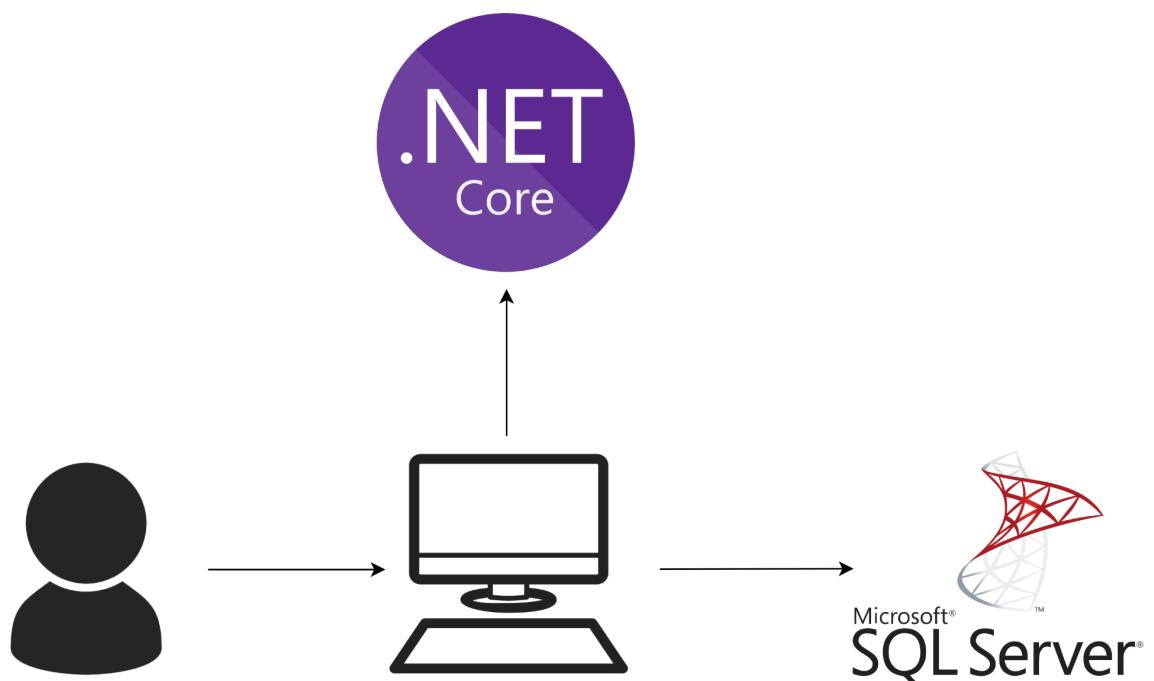
Test Case Number	TC02
Test Case Name	CreateOrderTC1
Test Case Description	Check product quantity before create order
Preconditions	User has enter order information
Test Case Input	Order details
Test Case Expected Output	Alert create order successfully
Test Case Steps	<ol style="list-style-type: none"> 1. Checkout 2. Create order
Test Result	Create order successfully

1.3 Test delete products

Test Case Number	TC03
Test Case Name	DeleteProductsTC1
Test Case Description	Check if product is in an order before delete
Preconditions	User choose delete product
Test Case Input	Product Id
Test Case Expected Output	Alert delete product successfully
Test Case Steps	<ol style="list-style-type: none"> 1. Manage products 2. Delete product
Test Result	Delete product successfully

V. Installation Instructions

- Install .NET 7.0: <https://dotnet.microsoft.com/en-us/download>
 - Install SQL Server:
<https://www.microsoft.com/en-us/sql-server/sql-server-downloads>
 - Install SQL Server Management Studio:
<https://learn.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-ver16>
1. Deployment



Appendix

Assign Work:

- 3/2023 - 4/2023: Analyze, design project and draw diagrams
- 4/2023 - 6/2023: Code project
- 1/6/2023 - 9/6/2023: Complete document, complete slideshow

Advantages:

- Learn more about website design
- Better understanding of SQL Server, ASP .NET Core 7.0
- Learned about clean architecture, repository unit of work pattern
- Learned more about tasks management, Unified Modeling Language

Disadvantages:

- The project is still not fully solved
- Project doesn't have online payment
- Code isn't optimized
- Layout has flaws