

Your Paper

You

February 25, 2022

Contents

1 Motivation	3
2 Requirement Analysis using BPMN diagram	4
2.1 Customer	5
2.2 Server	5
2.3 Affiliated Sites	7
3 Class Diagram	8
3.1 Homepage	10
3.2 Search and Filter	11
3.3 User Module	12
3.4 Product Viewing	13
3.5 Comparison	14
3.6 Communication	15
3.7 Bundle	16
4 ER Diagram	17
4.1 Homepage	18
4.2 Search and Filter	19
4.3 User Module	20
4.4 Product Viewing	21
4.5 Product Comparison	22
4.6 Bundle	23
5 Sequence Diagram	24
5.1 Feedback on Sequence and Collaboration Diagram	24
5.2 Homepage	24
5.3 Search and Filter	25
5.4 Product Viewing	26
5.5 Product Comparison	27
5.6 Bundle	28
5.7 Purchase Record	29
5.8 Voucher	30
5.9 Communication	31
6 Collaboration Diagram	32
6.1 Home Page	32
6.2 Search And Filter	33
6.3 Purchase History	34
6.4 Viewing A Product	35
6.5 Voucher	36
6.6 Single Product Comparison	37
6.7 Bundle	38
6.8 Communication	39

7 State Diagrams	40
7.1 Bundle	40
7.2 Voucher	41
8 Mock UI	42

Chapter 1

Motivation

We often visit different online stores to get various products. But sometimes it becomes quite difficult to figure out which shop to visit, since the same product can be bought from different stores at different prices. To help people figure out the best place to buy a certain product, we present our project **DealFinder**. It provides the users with better experience in shopping by showing offers and pricing details of various products. Primarily we worked with two online shops:

- [Star Tech](#)
- [Tech Land](#)

There are some additional facilities a user can get here.

- **Bundles:** A user can create a bundle by selecting a bunch of products and then for that bundle s/he can compare the pricing from different websites and enjoy the best deal. Also s/he can save a bundle so that it can be used later.
- **Comparison:** For a pair of products a user can select and compare their details.

Chapter 2

Requirement Analysis using BPMN diagram

Feedbacks acknowledged : Product Price, Offer and Delivary based comparator filter added

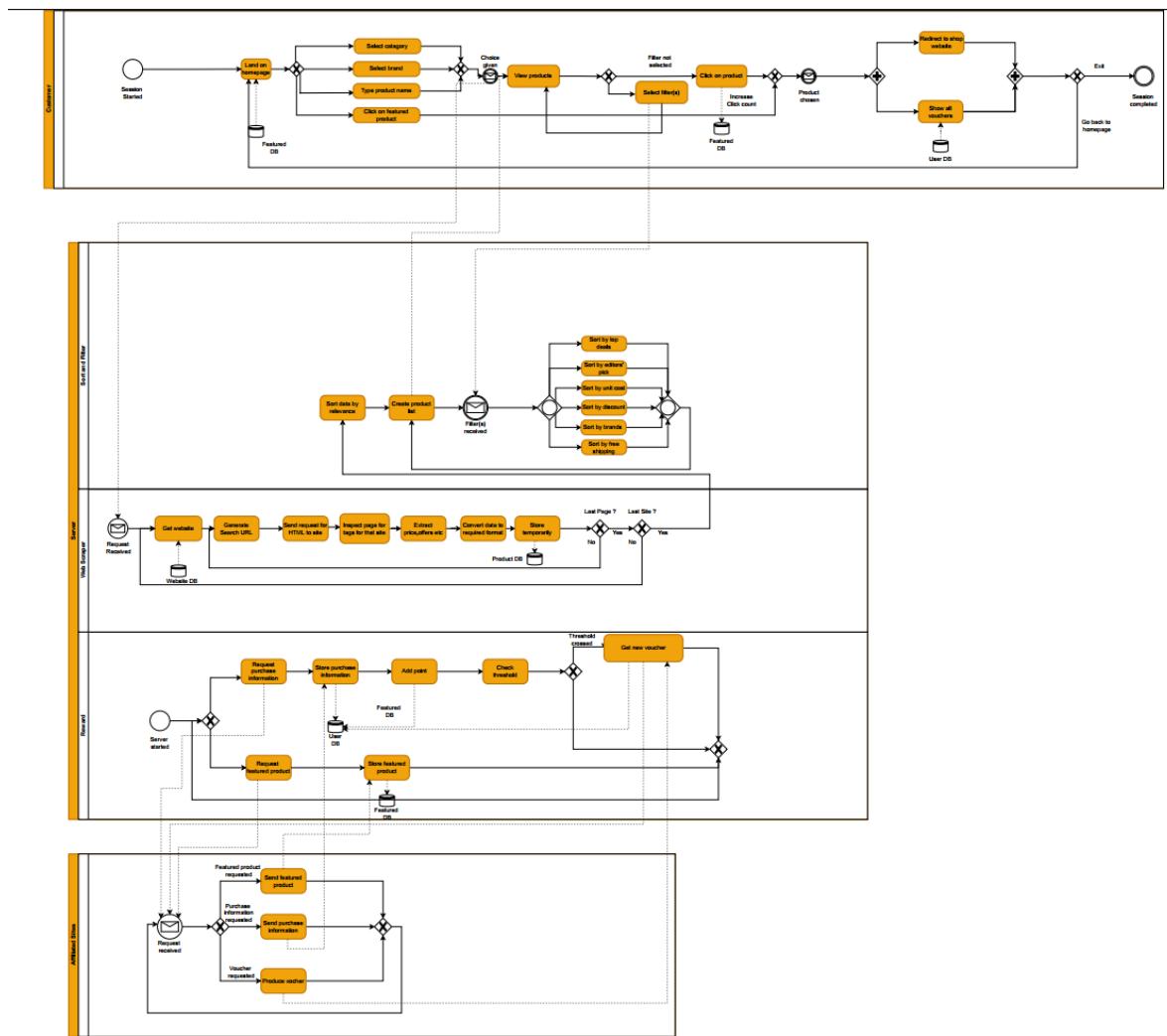


Figure 2.1: Full BPMN Diagram

Pools

- Customer
- Server
- Affiliated Sites

2.1 Customer

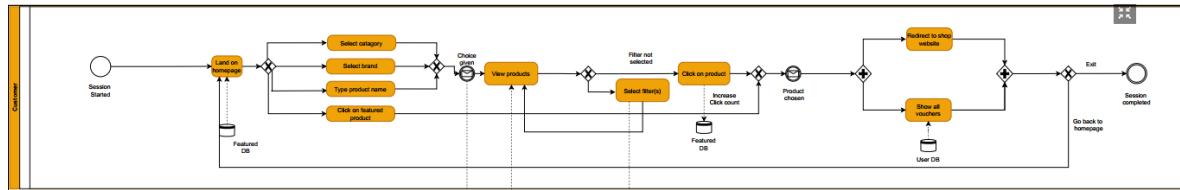


Figure 2.2: Pool1-Customer

2.2 Server

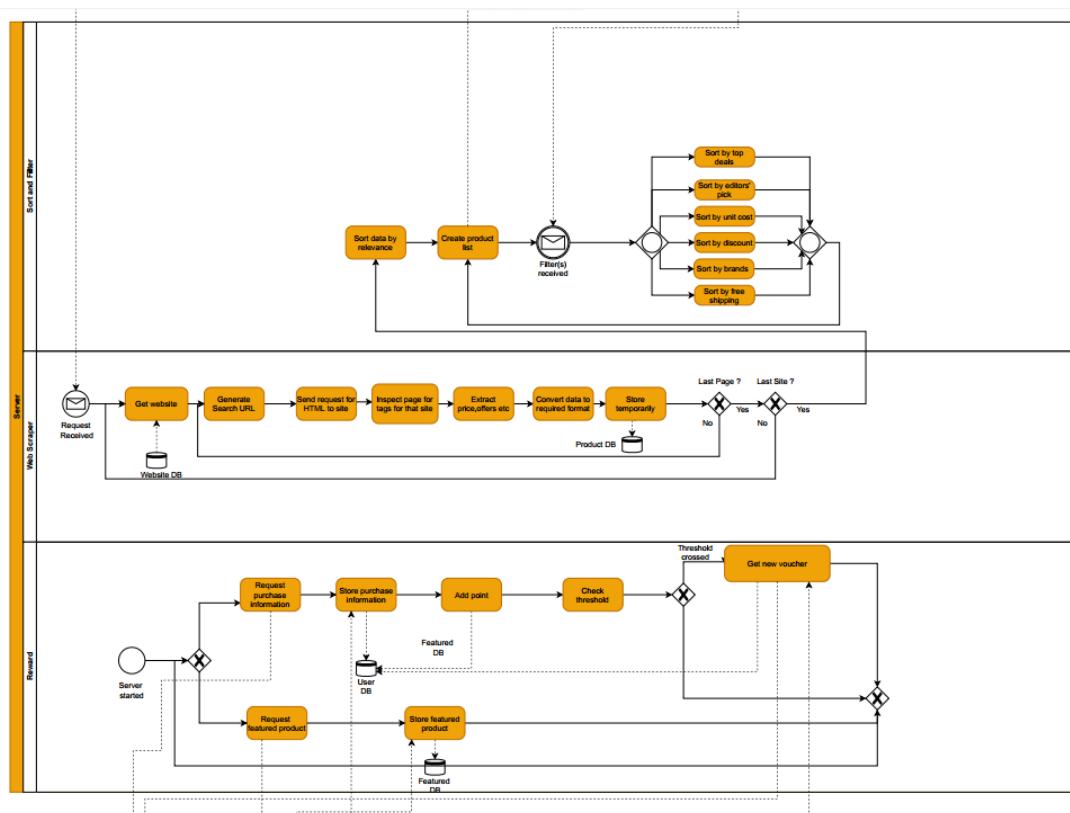


Figure 2.3: Pool2-Server

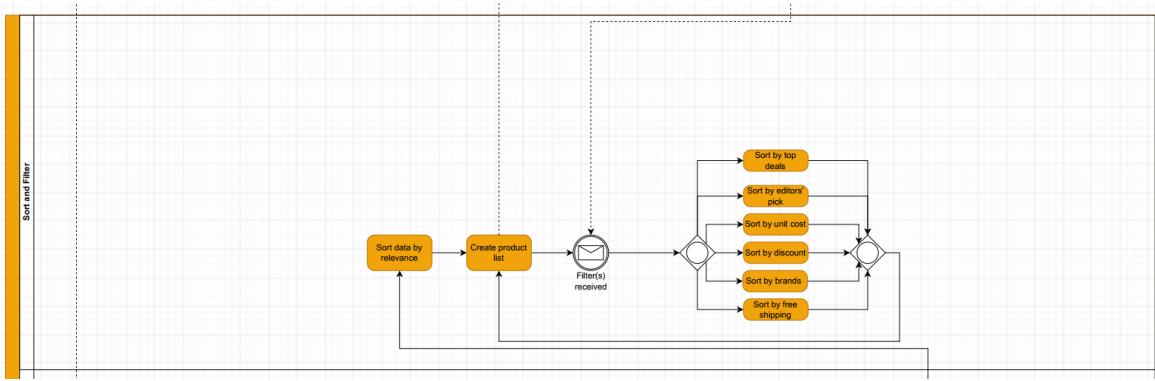


Figure 2.4: Lane: Sort and Filter

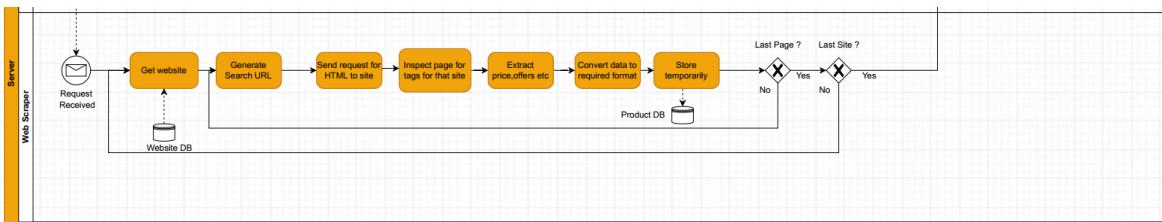


Figure 2.5: Lane: Web Scarper

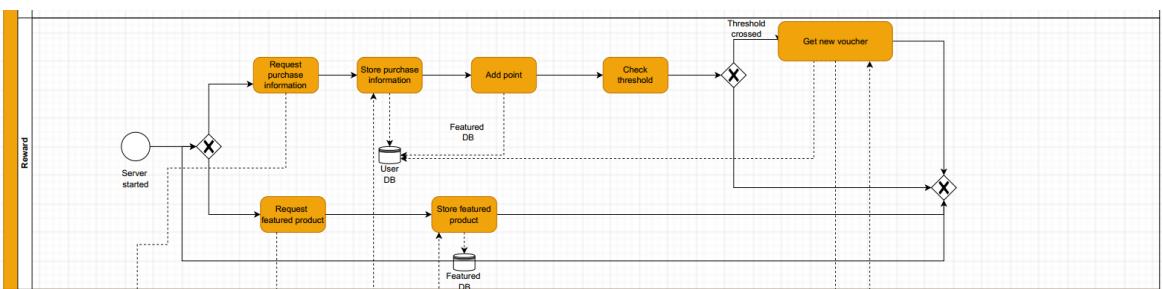


Figure 2.6: Lane: Reward

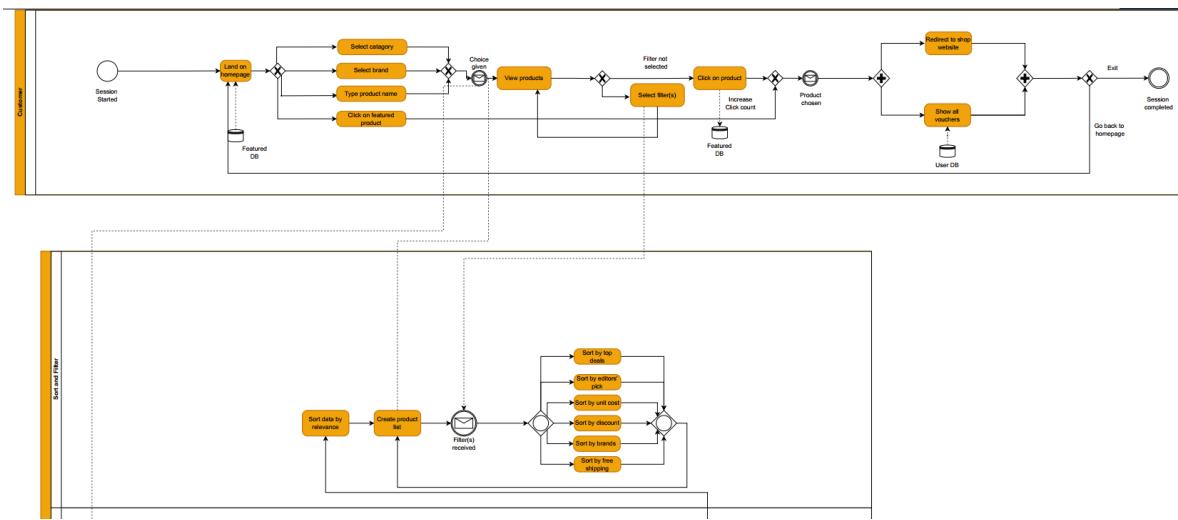


Figure 2.7: Connection Between Customer and Server

2.3 Affiliated Sites

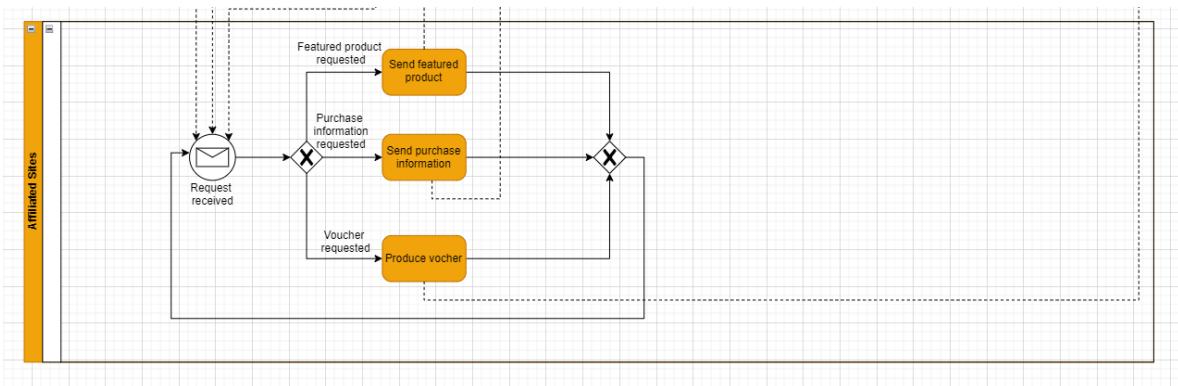


Figure 2.8: Pool3:Affiliated Sites

Chapter 3

Class Diagram

Feedbacks acknowledged : Class Diagram related to Bundle added

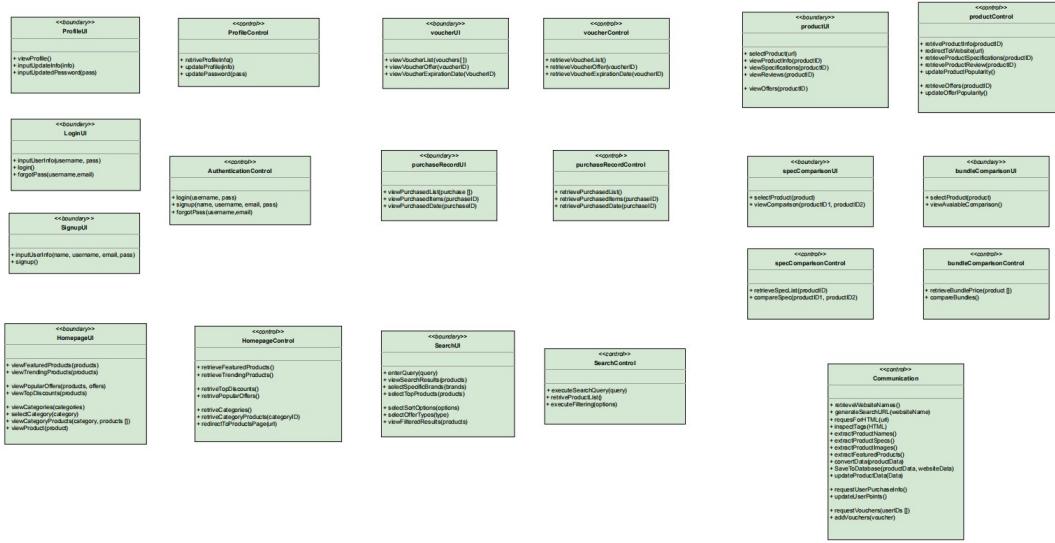


Figure 3.1: Full Class Diagram (Part 1)

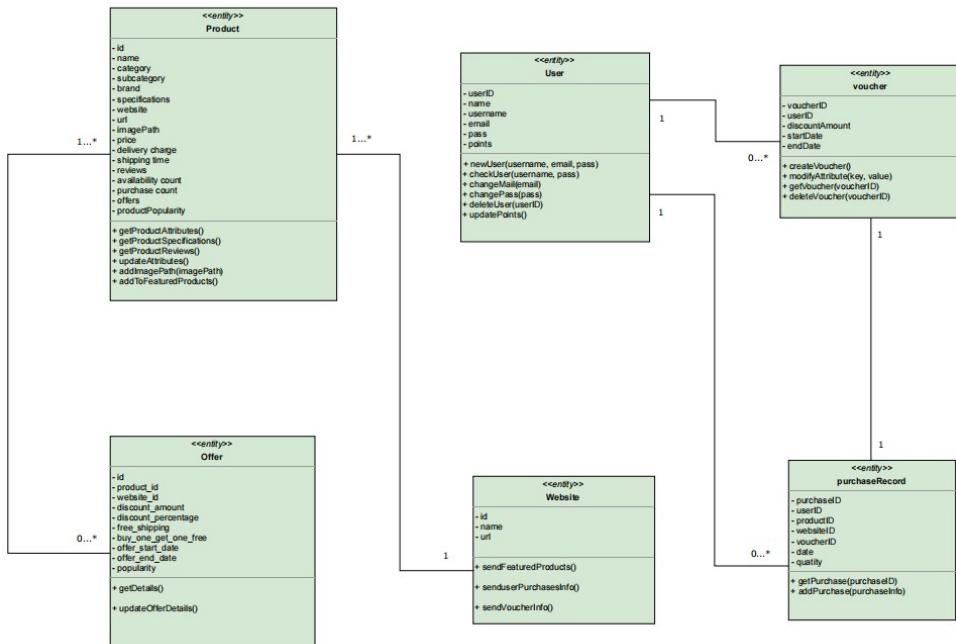


Figure 3.2: Full Class Diagram (Part 2)

3.1 Homepage

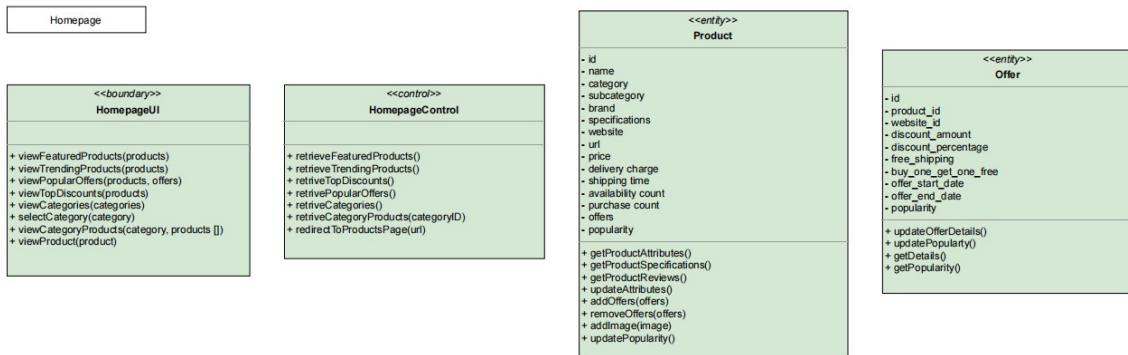


Figure 3.3: Class Diagram related to Homepage Module

3.2 Search and Filter

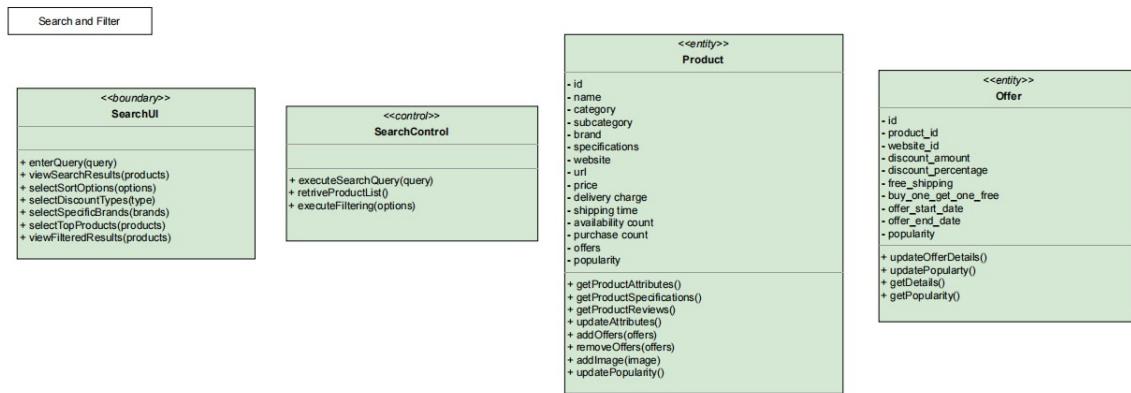


Figure 3.4: Class Diagram related to Search and Filter Module

3.3 User Module

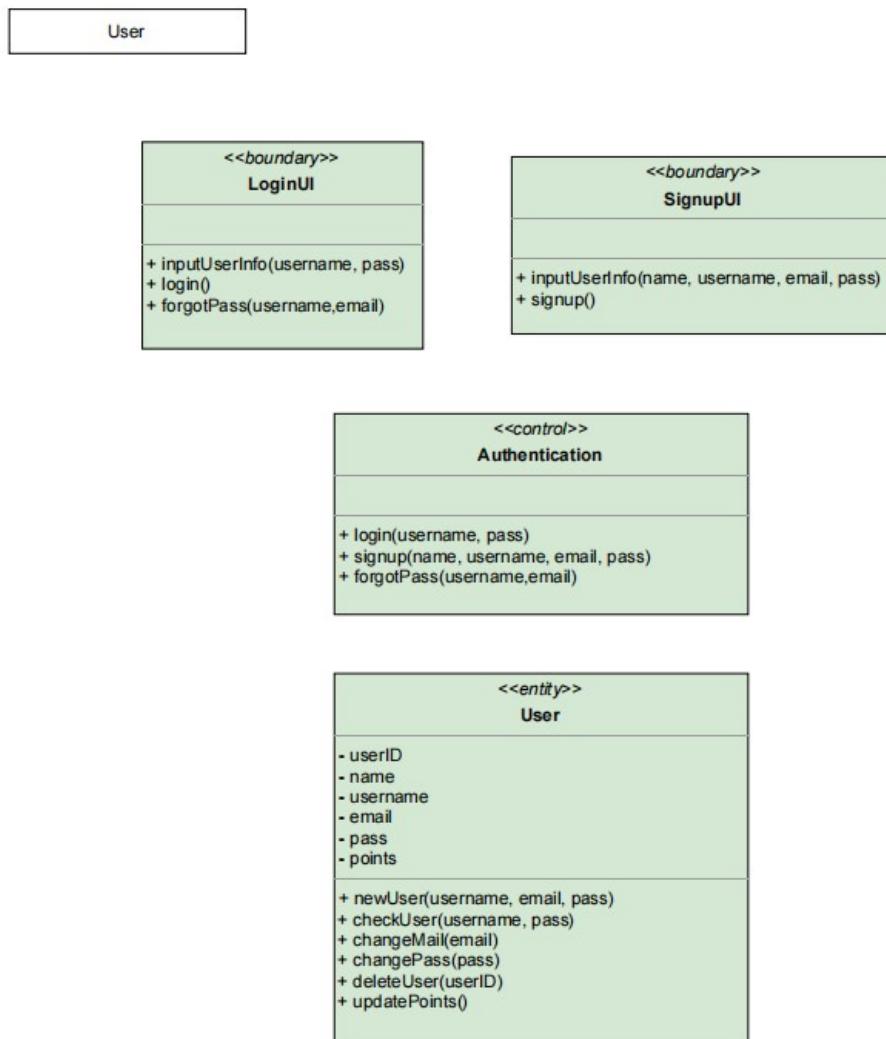


Figure 3.5: Class Diagram related to User Module

3.4 Product Viewing

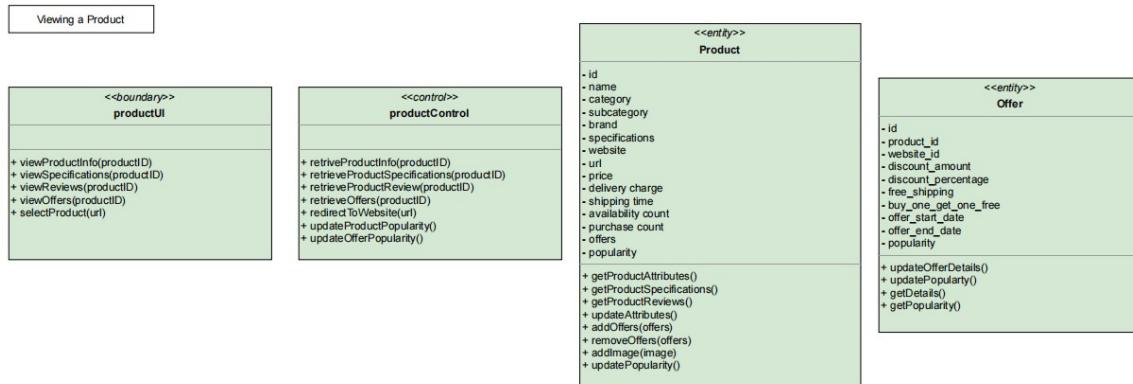


Figure 3.6: Class Diagram related to Product View Module

3.5 Comparison

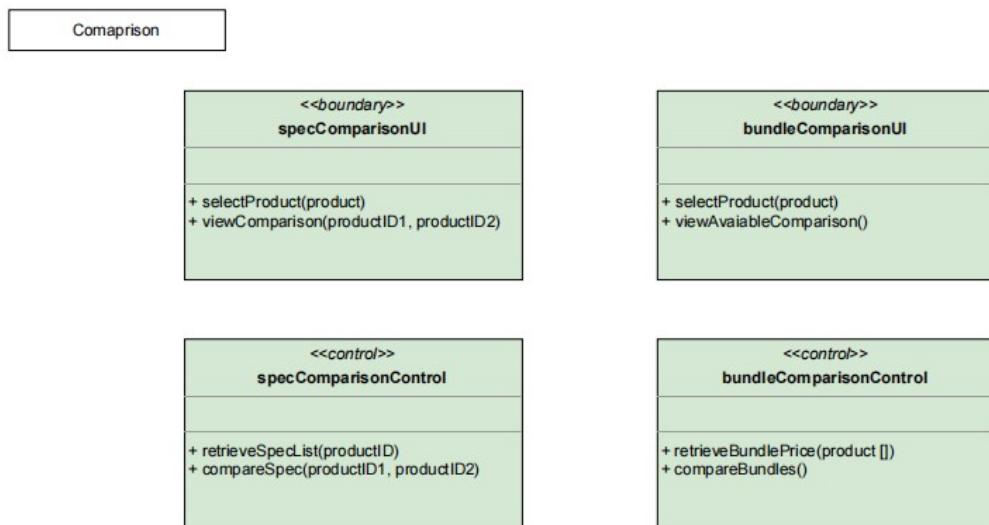


Figure 3.7: Class Diagram related to Comparison Module

3.6 Communication

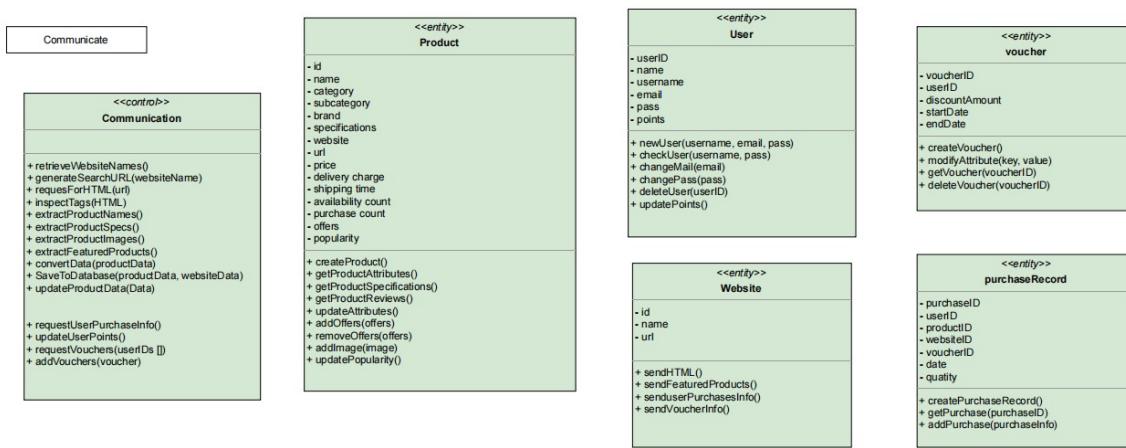


Figure 3.8: Class Diagram related to Communication Module

3.7 Bundle

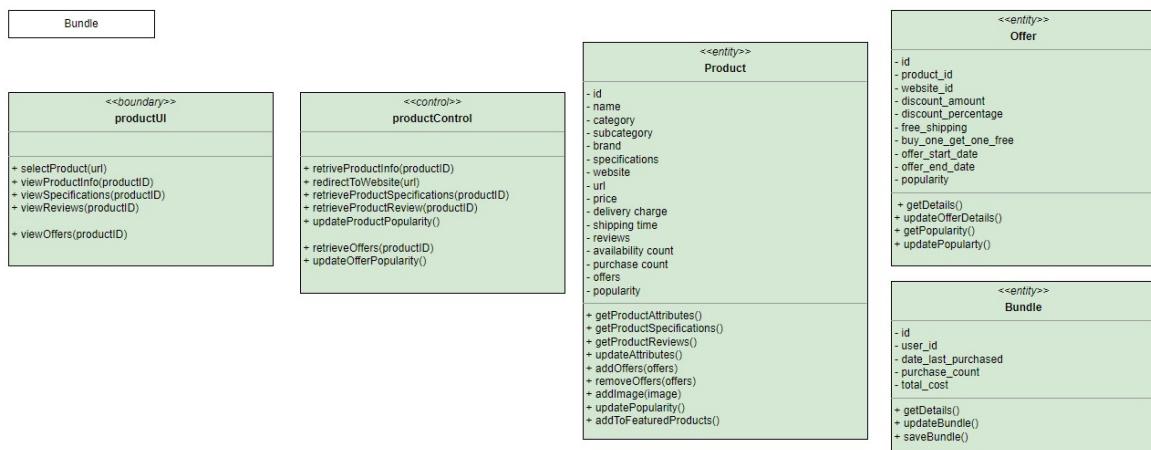


Figure 3.9: Class Diagram related to Bundle Module

Chapter 4

ER Diagram

Feedbacks acknowledged : ER Diagram related to Bundle added

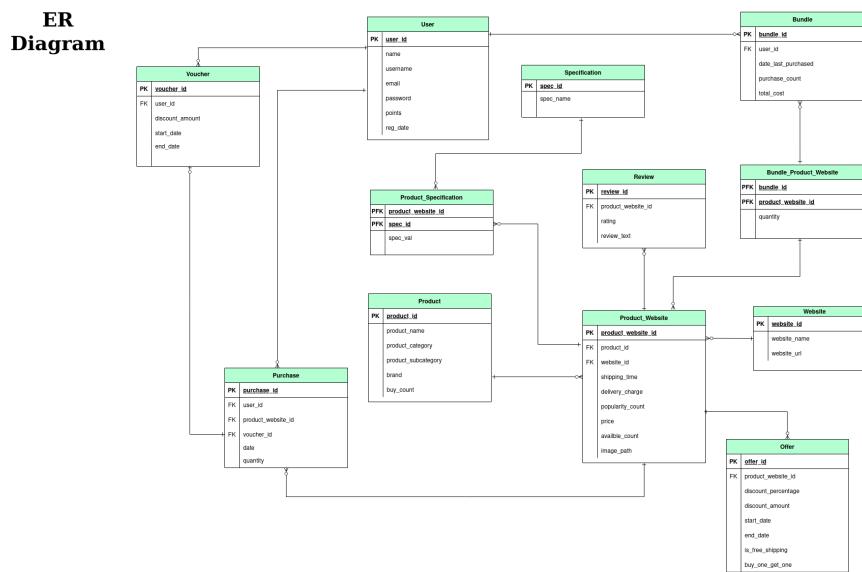


Figure 4.1: Full ER Diagram

4.1 Homepage

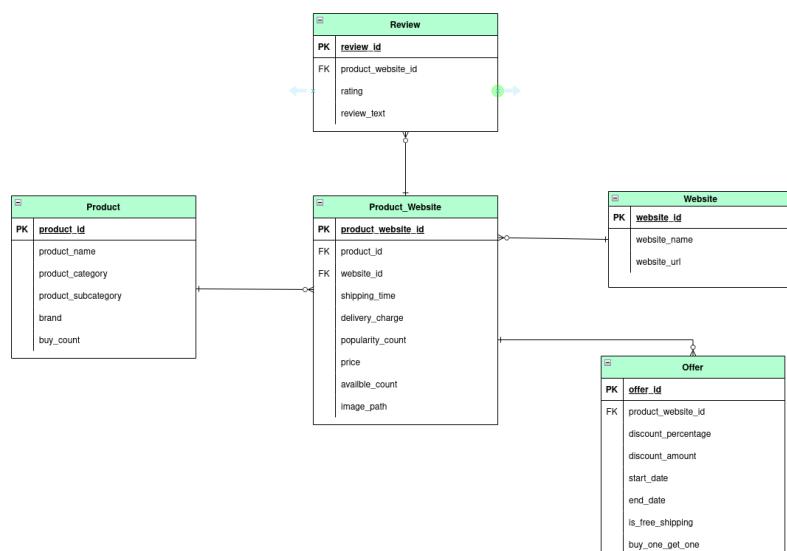


Figure 4.2: ERD Related to Homepage

4.2 Search and Filter

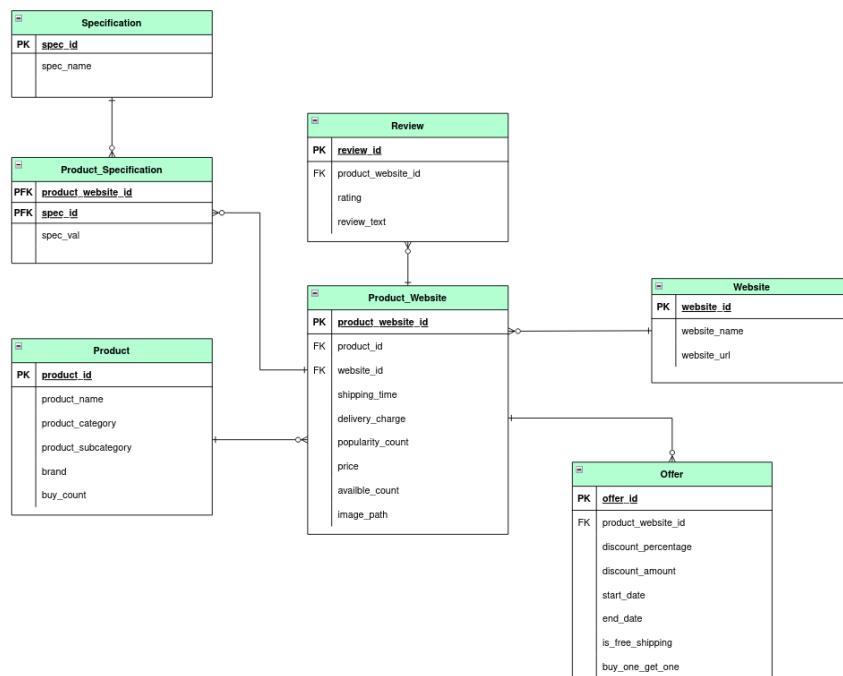


Figure 4.3: ERD Related to Search and Filter

4.3 User Module

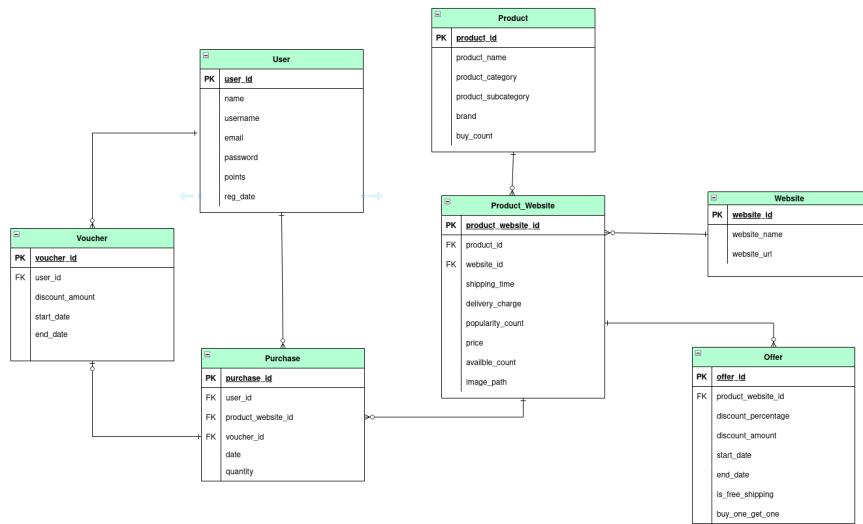


Figure 4.4: ERD Related to User Module

4.4 Product Viewing

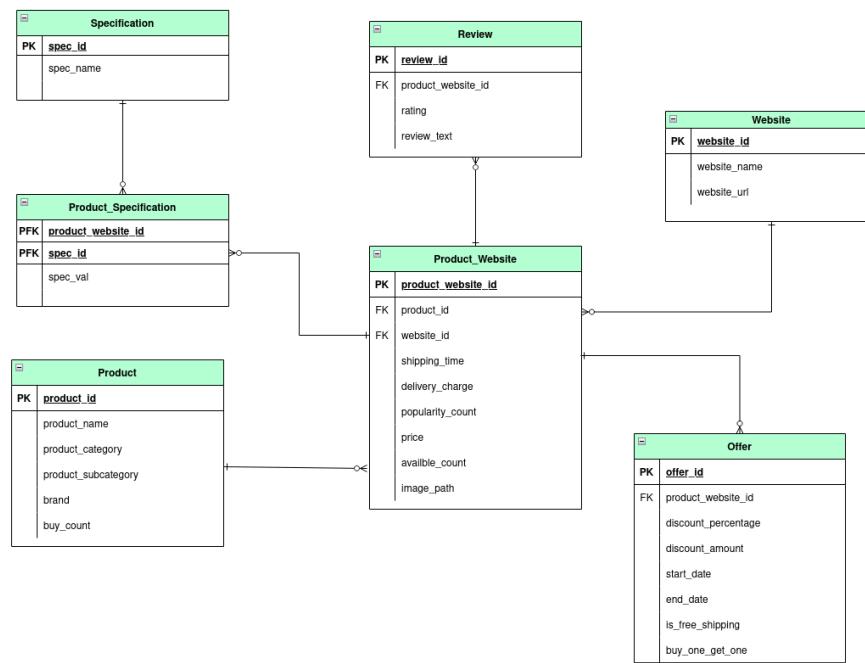


Figure 4.5: ERD Related to Product Viewing

4.5 Product Comparison

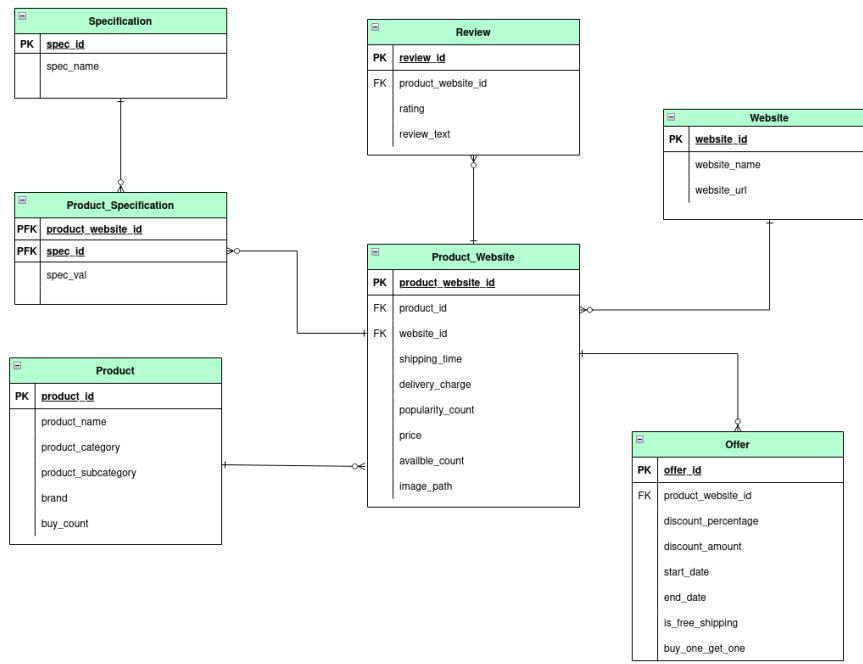


Figure 4.6: ERD Related to Product Comparison

4.6 Bundle

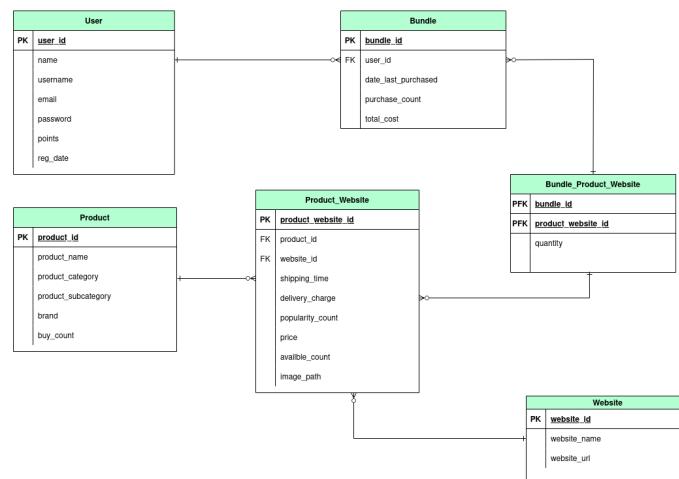


Figure 4.7: ERD Related to Product Bundle

Chapter 5

Sequence Diagram

5.1 Feedback on Sequence and Collaboration Diagram

- Separate the **Communicate** use case into two use cases : **Scraper** and **User data extraction**
- Make saved bundles accessible to user separate from bundle creation

5.2 Homepage

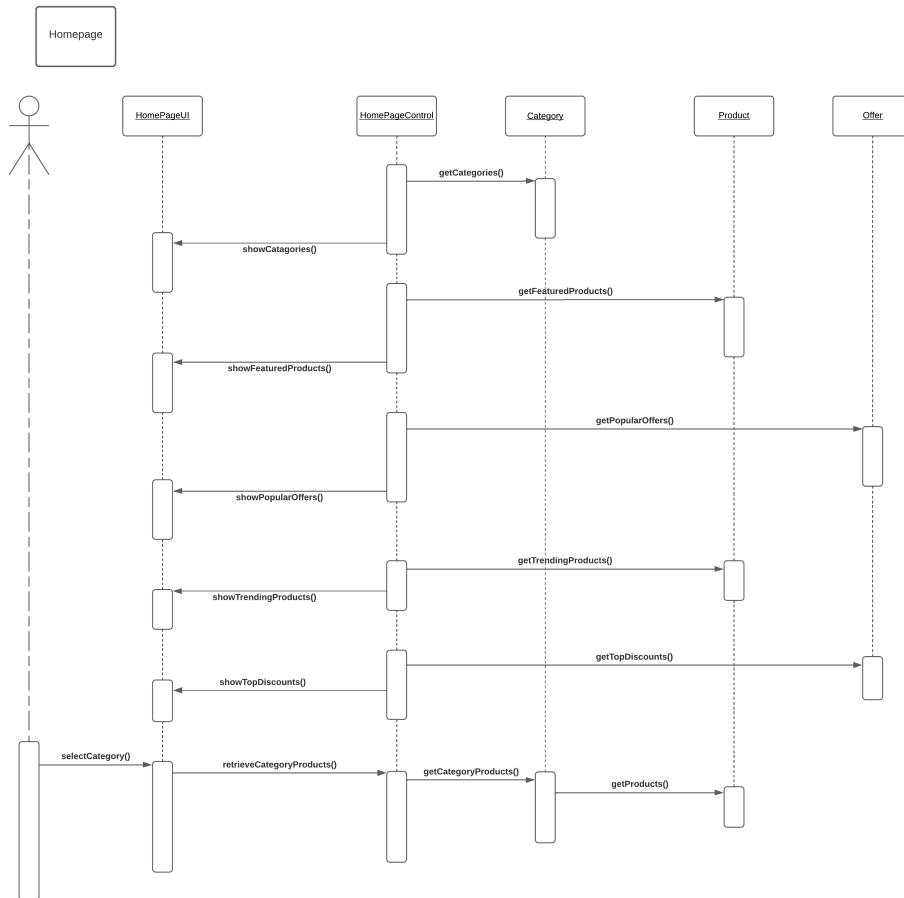


Figure 5.1: Sequence Diagram for Homepage

5.3 Search and Filter

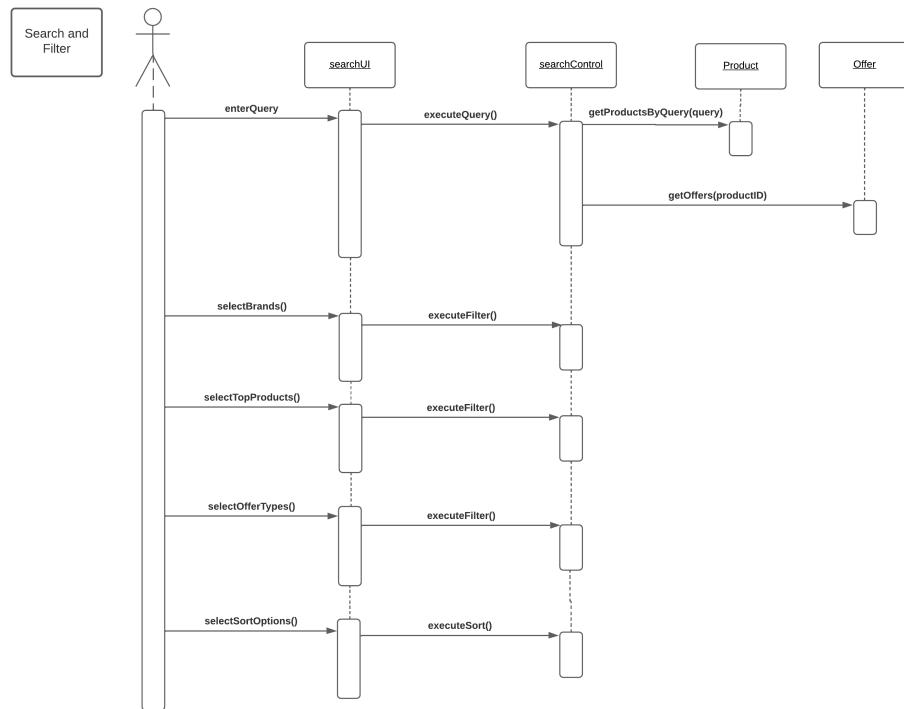


Figure 5.2: Sequence Diagram for Search and Filter

5.4 Product Viewing

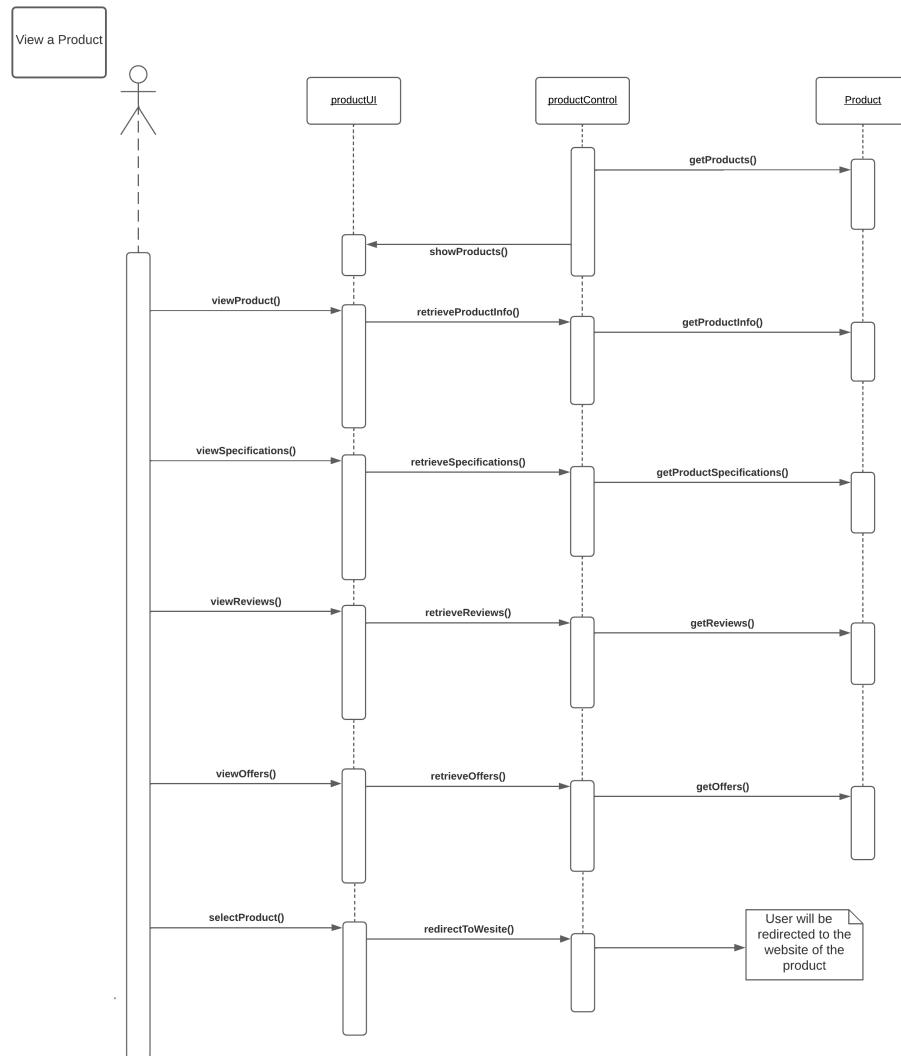


Figure 5.3: Sequence Diagram for Product Viewing

5.5 Product Comparison

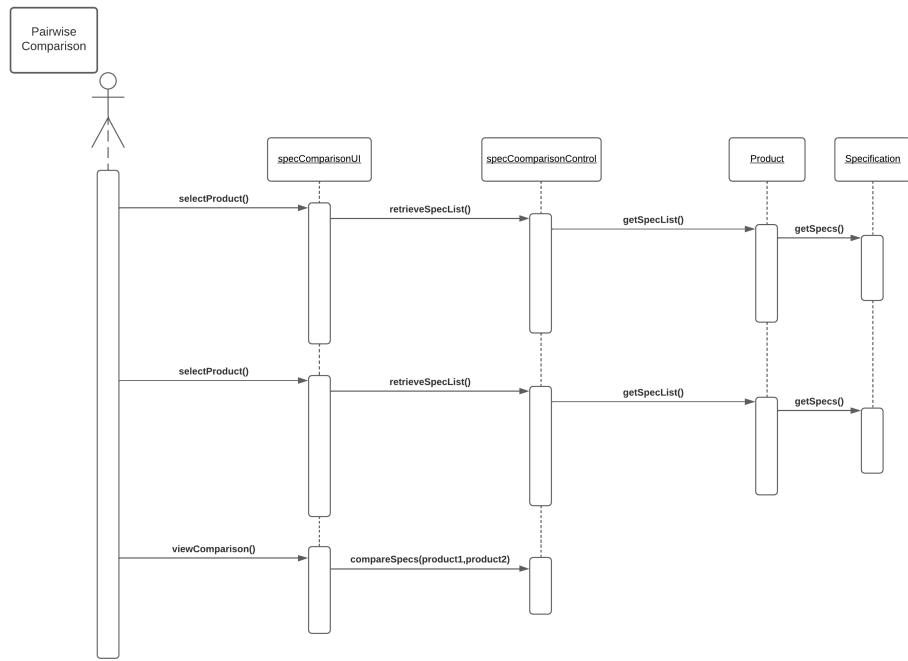


Figure 5.4: Sequence Diagram for Product Comparison

5.6 Bundle

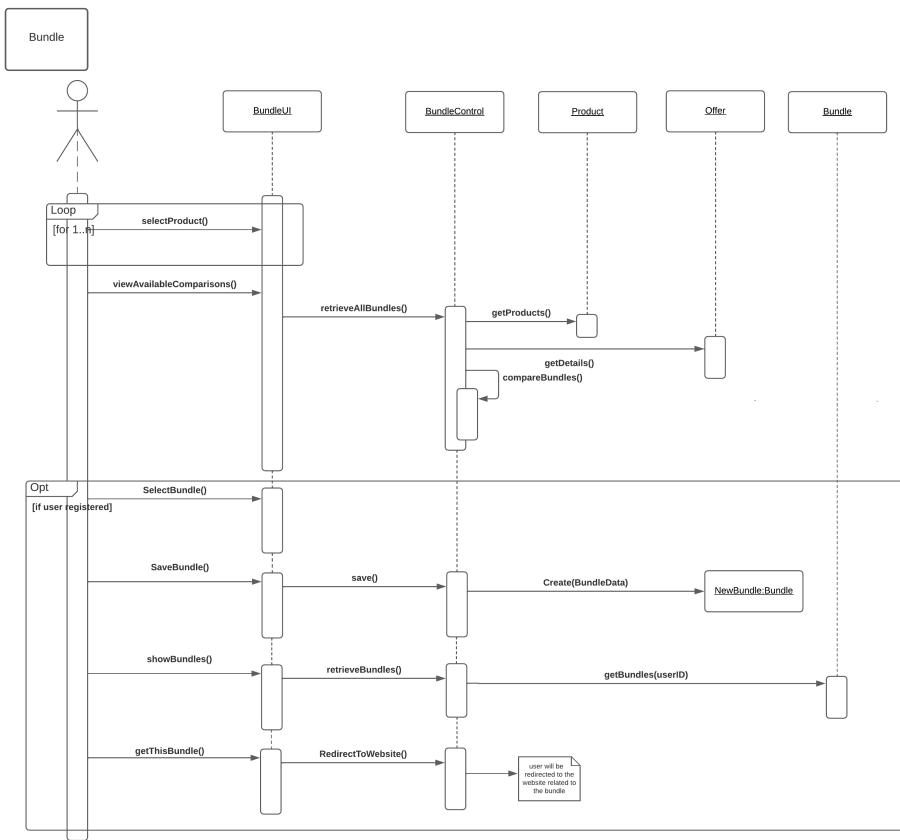


Figure 5.5: Sequence Diagram for Bundle

5.7 Purchase Record

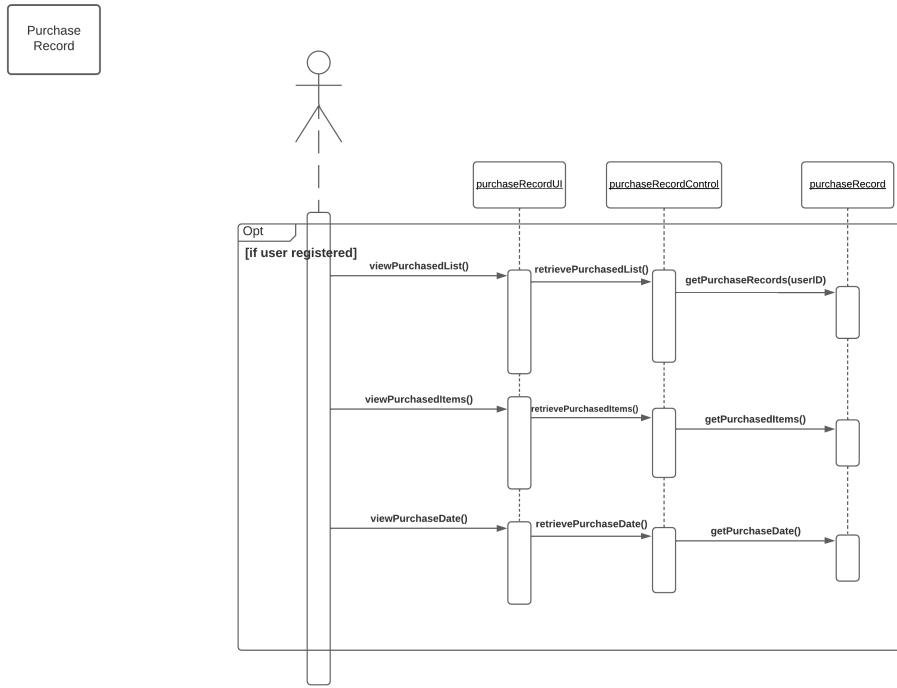


Figure 5.6: Sequence Diagram for Purchase Record

5.8 Voucher

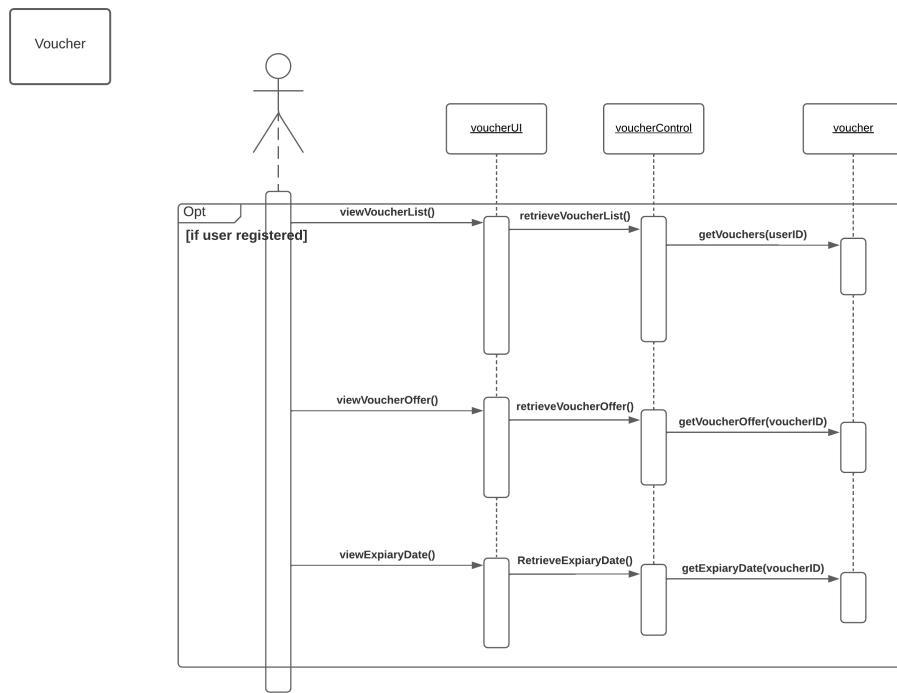


Figure 5.7: Sequence Diagram for Voucher

5.9 Communication

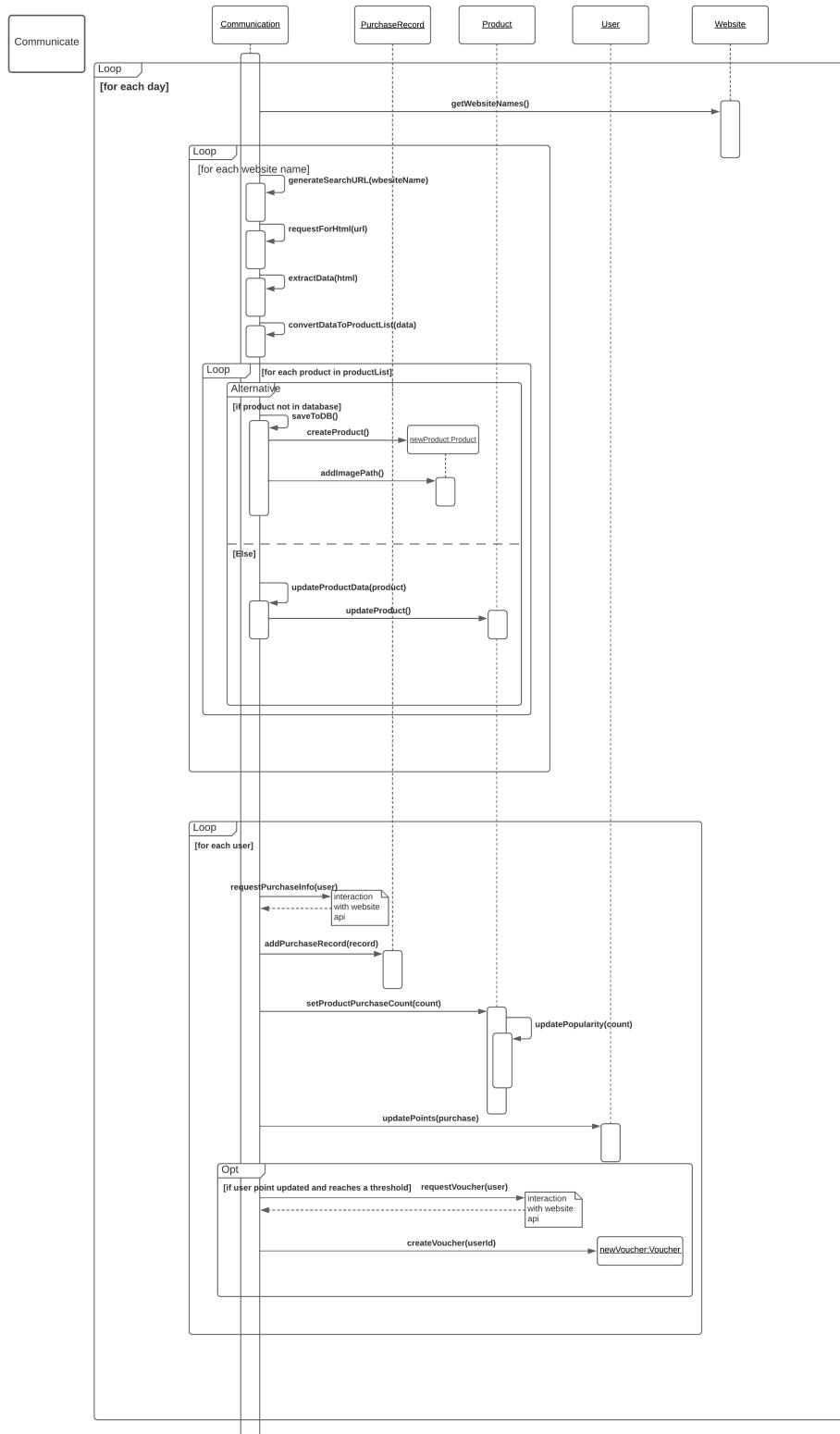


Figure 5.8: Sequence Diagram for Communication

Chapter 6

Collaboration Diagram

6.1 Home Page

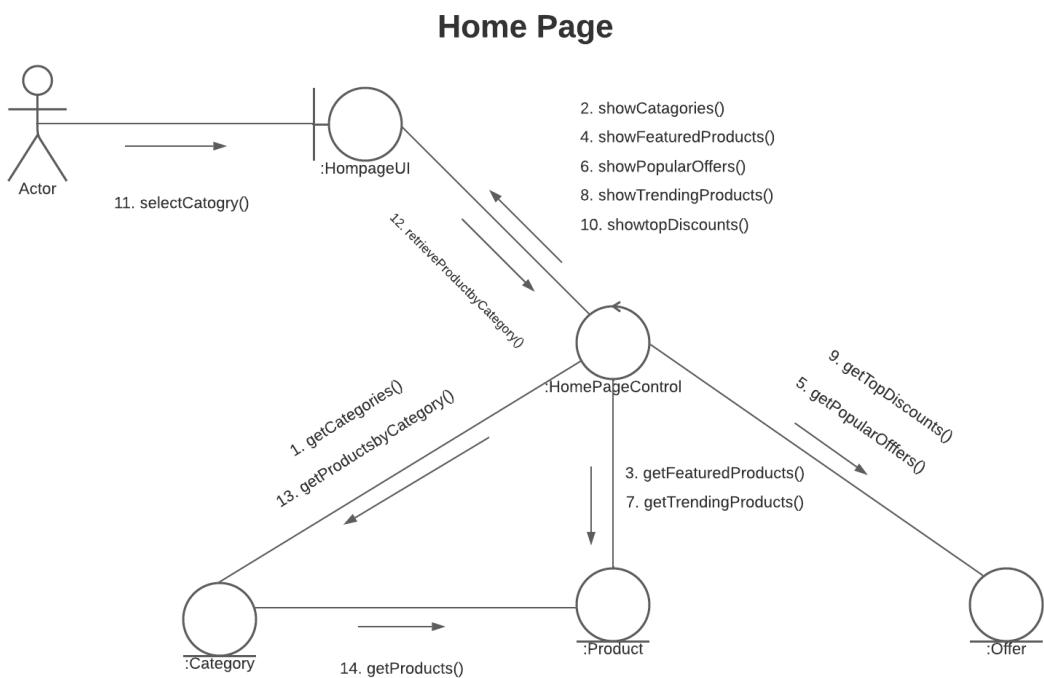


Figure 6.1: Home Page

6.2 Search And Filter

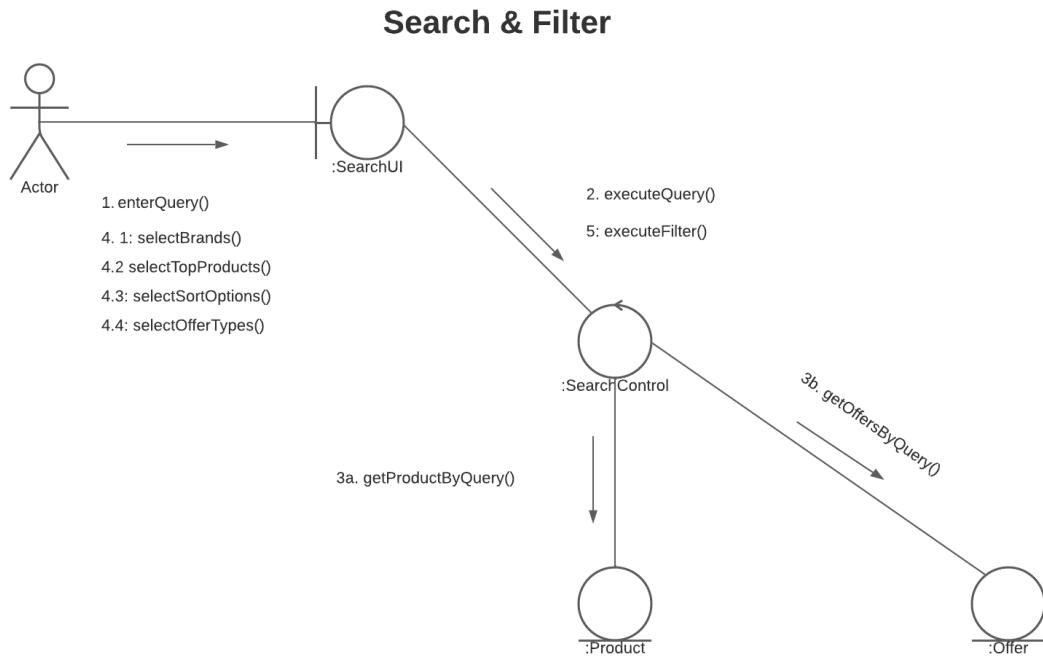


Figure 6.2: Search And Filter

6.3 Purchase History

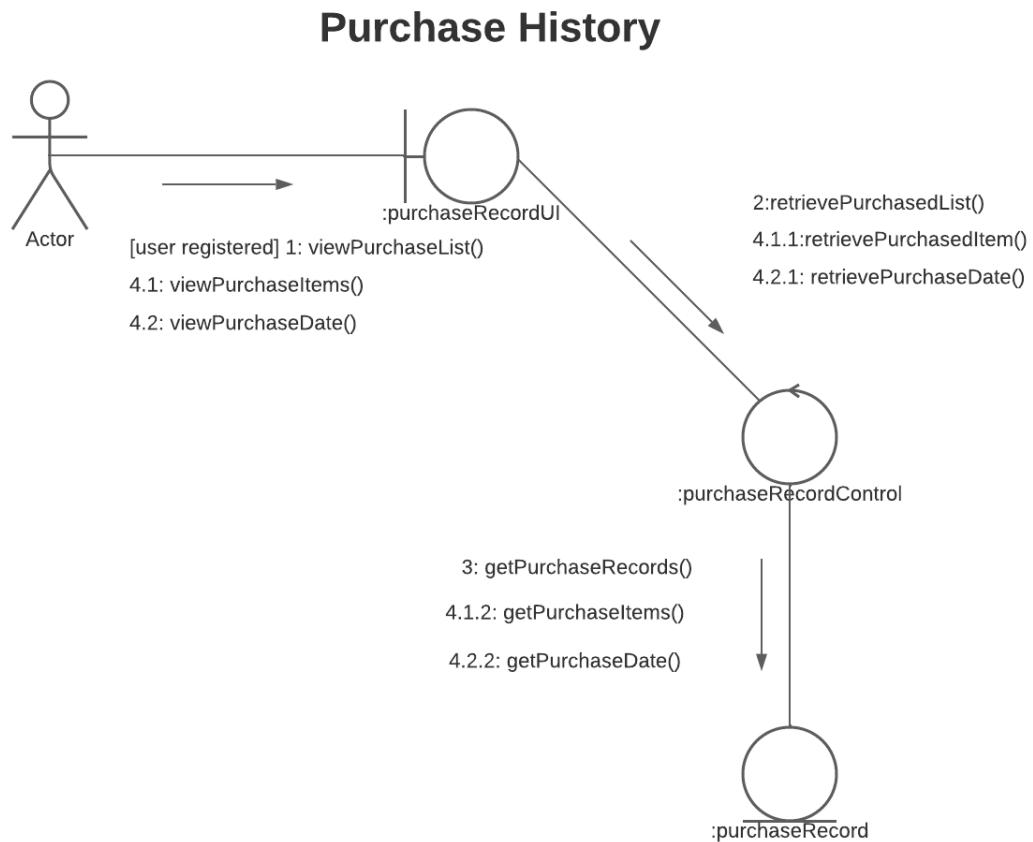


Figure 6.3: Purchase History

6.4 Viewing A Product

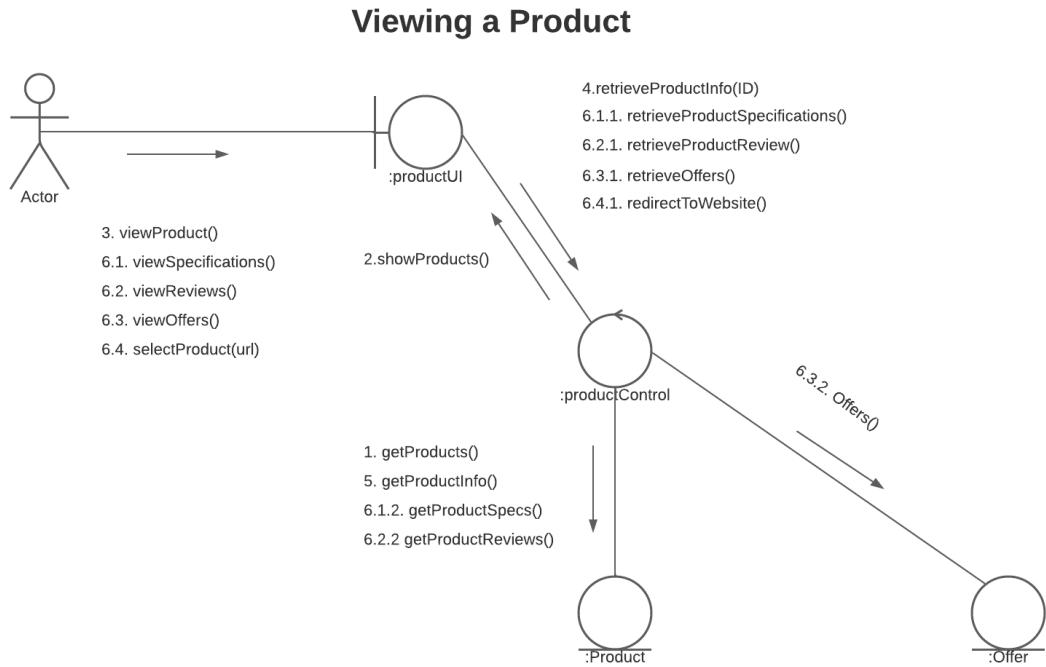


Figure 6.4: Viewing A product

6.5 Voucher

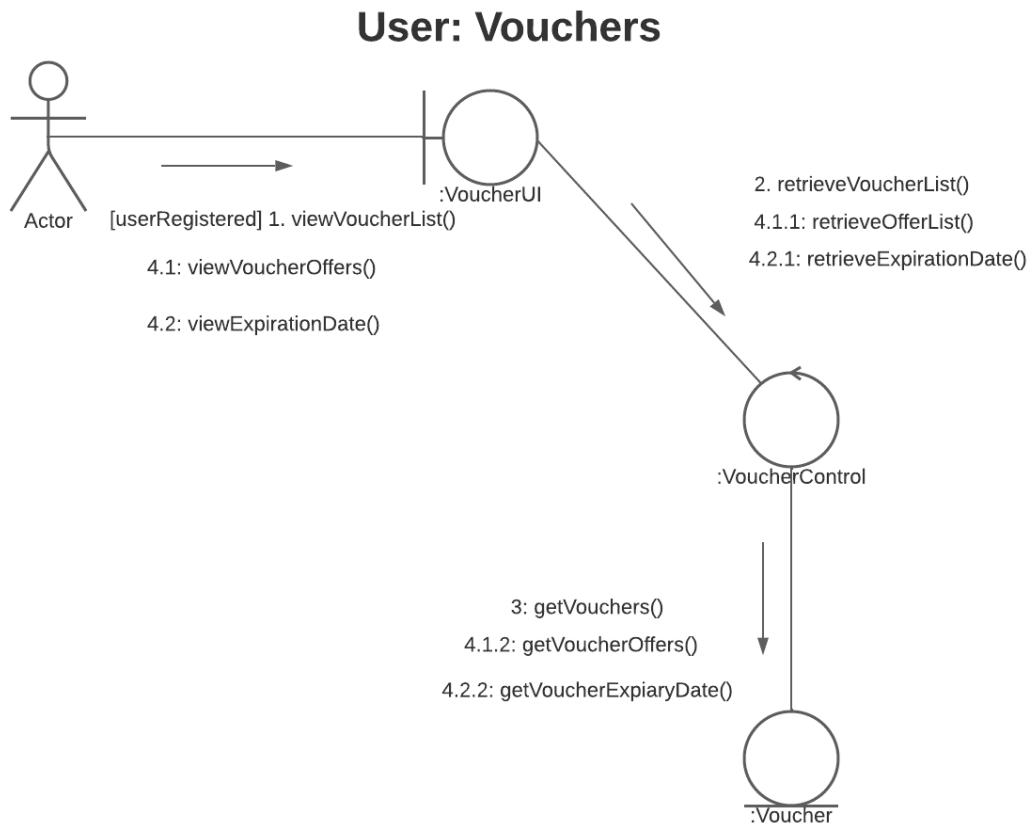


Figure 6.5: Vouchers

6.6 Single Product Comparison

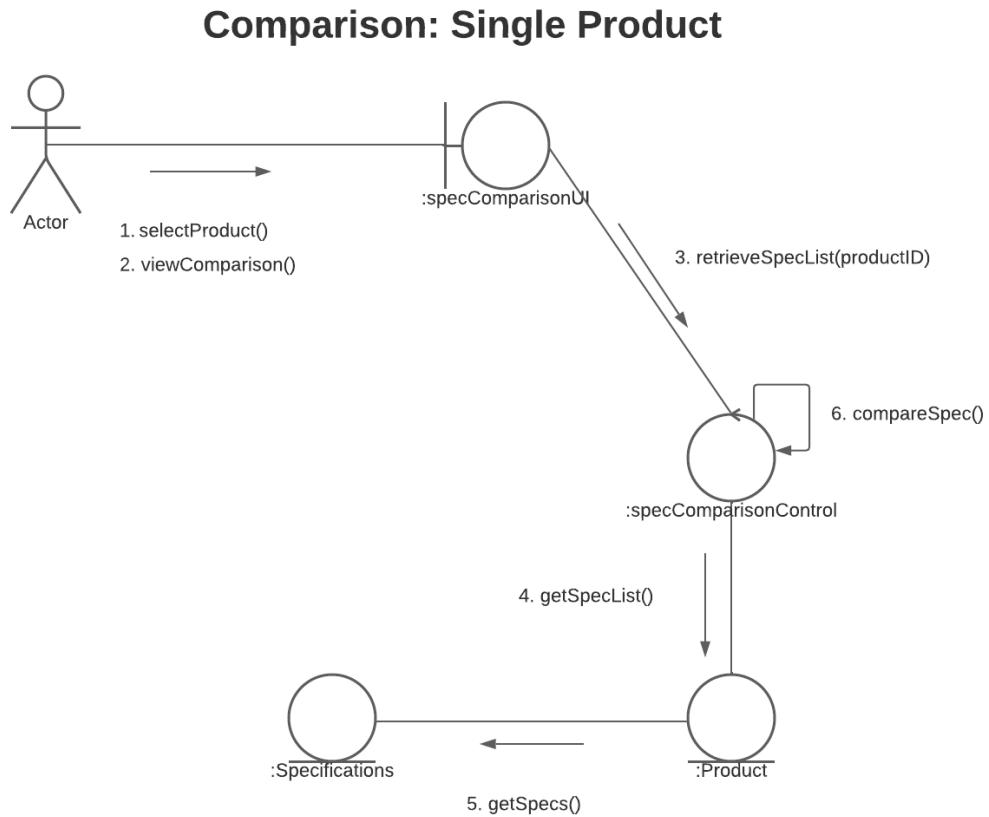


Figure 6.6: Single Product Comparison

6.7 Bundle

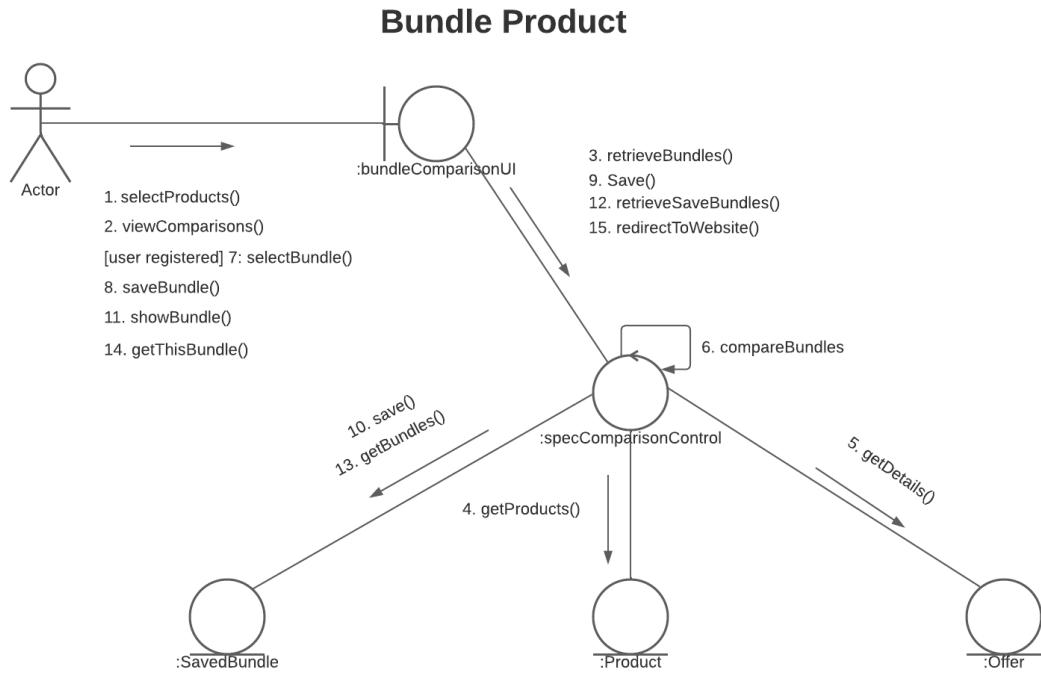


Figure 6.7: Bundle

6.8 Communication

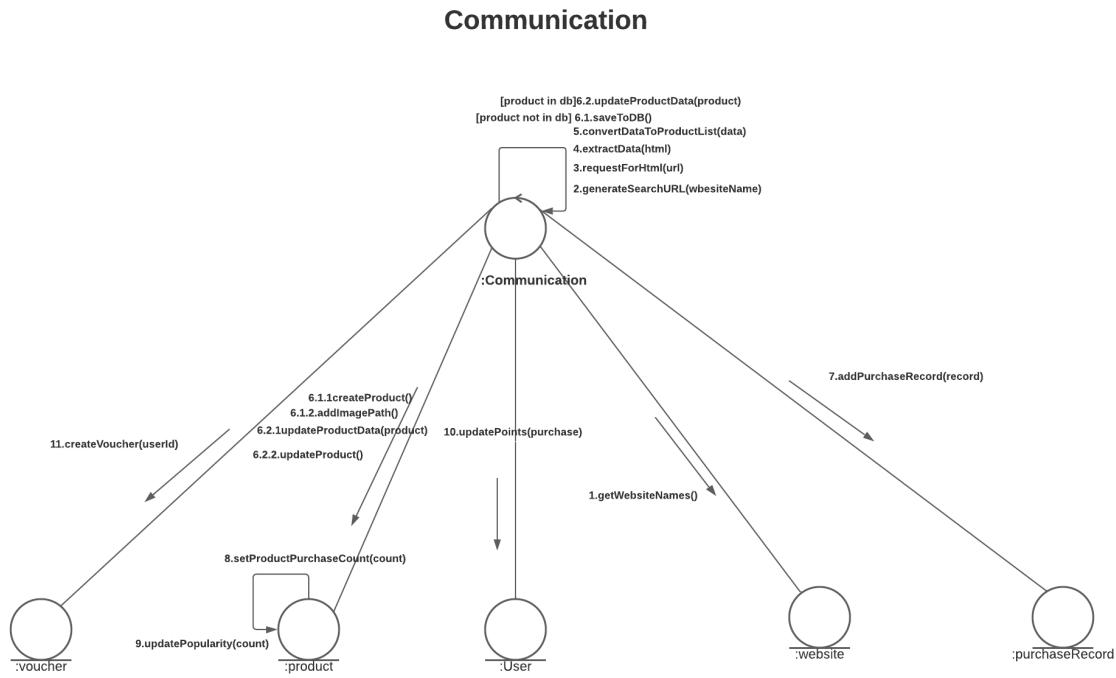


Figure 6.8: Communication

Chapter 7

State Diagrams

7.1 Bundle

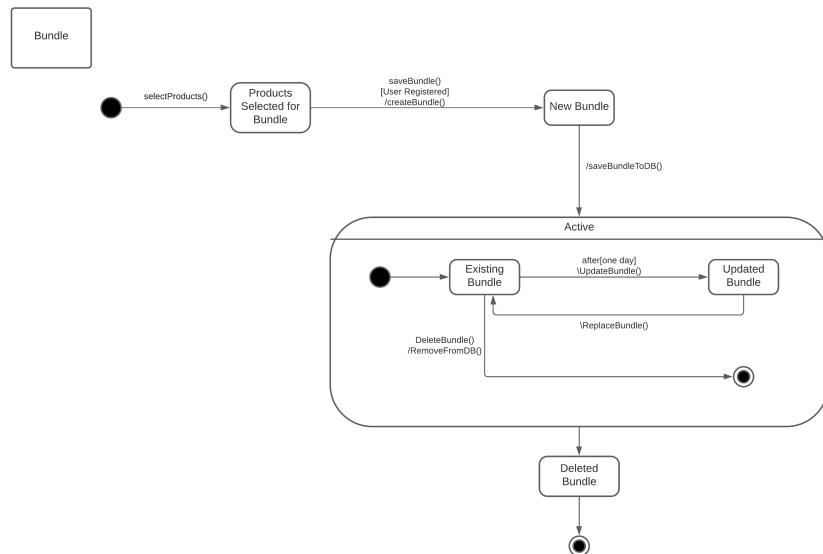


Figure 7.1: State Diagram for Bundle

7.2 Voucher

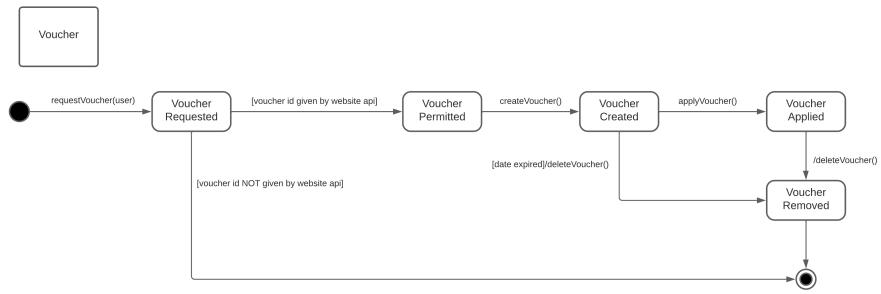


Figure 7.2: State Diagram for Voucher

Chapter 8

Mock UI

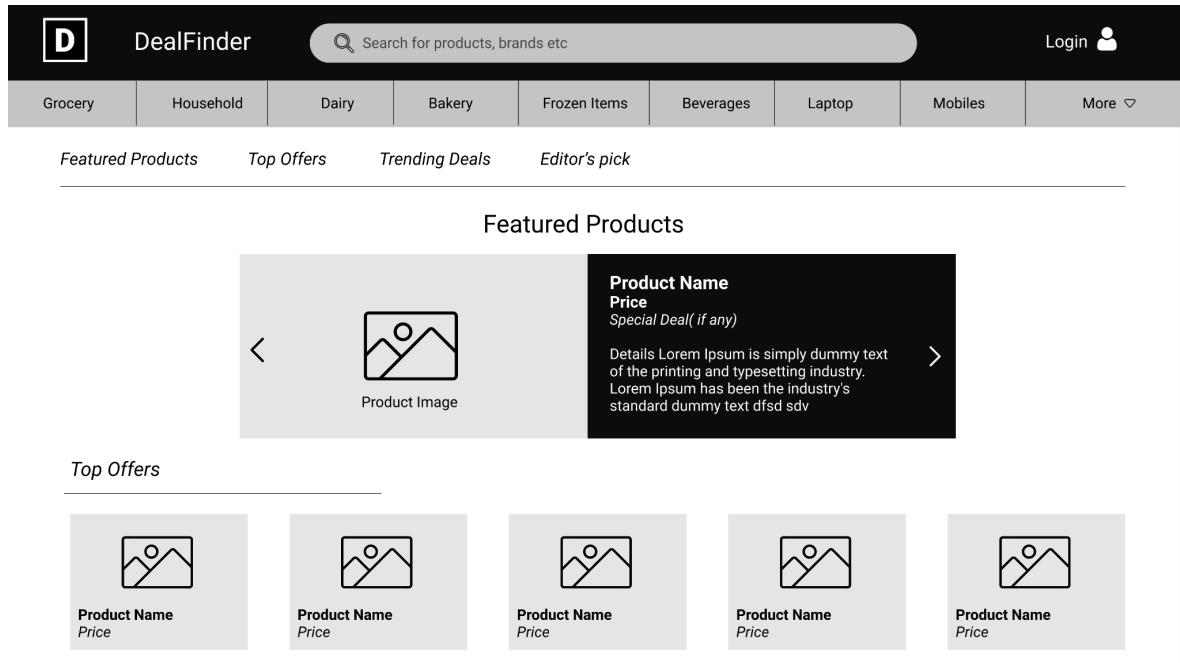


Figure 8.1: Homepage

Feedbacks

- Brand and product names can't be added as filters as they are dynamic & varies with different pages.
- A new module needs to be added which will compare the specifications between two products.
- A new module needs to be added which can compare the price of a list of bundle products from different websites and can save these bundles in a user profile.

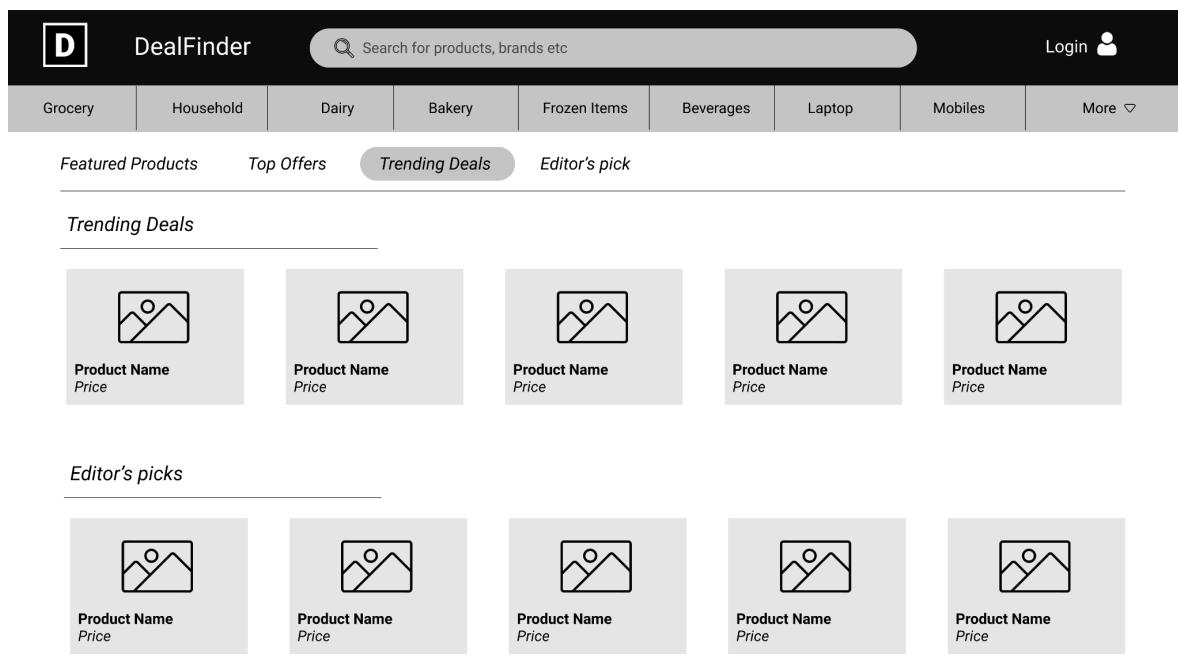


Figure 8.2: Homepage

This screenshot shows the DealFinder homepage with the "Dairy" category selected in the horizontal menu. On the left side, there are three sidebar sections: "Sort" (with options like Unit Price, Latest, Last Chance, and Fastest Shipping), "Top Brands" (with options like Brand name), and "Top Products" (with options like Product name). In the center, there is a search bar containing "Product A" and "Product B". Below the search bar, there are eight product cards arranged in a 2x4 grid. Each card displays a placeholder image of a mountain, the brand name, product name, price, delivery charge, shipping days, and a status indicator (either "Featured" or "Latest").

Figure 8.3: Category Search

The screenshot shows the DealFinder mobile application interface. At the top, there is a navigation bar with a logo, the text "DealFinder", a search bar containing "Asus", and a "Login" button. Below the navigation bar is a horizontal menu with categories: Grocery, Household, Dairy, Bakery, Frozen Items, Beverages, Laptop, Mobiles, and More. On the left side of the main content area, there are three filter sections: "Sort" (with options like Unit Price, Latest, Last Chance, Fastest Shipping), "Top Products" (with options like Product name), and "Discount Types" (with options like Free Shipping, \$ off, % off, Buy 1 Get 1). The main content area displays a search results grid. The search bar at the top of the grid contains "Product A X" and "Product B X". The grid consists of two rows of four items each. Each item is represented by a card with a placeholder image of a mountain range, the text "Brand Name", and a list of filters: "Product Name", "Price", "Delivery Charge", and "Shipping Days".

Figure 8.4: Brand Search

The screenshot shows the DealFinder mobile application interface. At the top, there is a navigation bar with a logo, the text "DealFinder", a search bar containing "Laptop", and a "Login" button. Below the navigation bar is a horizontal menu with categories: Grocery, Household, Dairy, Bakery, Frozen Items, Beverages, Laptop, Mobiles, and More. On the left side of the main content area, there are three filter sections: "Sort" (with options like Unit Price, Latest, Last Chance, Fastest Shipping), "Top Brands" (with options like Brand name), and "Discount Types" (with options like Free Shipping, \$ off, % off, Buy 1 Get 1). The main content area displays a search results grid. The search bar at the top of the grid contains a magnifying glass icon. The grid consists of two rows of four items each. Each item is represented by a card with a placeholder image of a mountain range, the text "Brand Name", and a list of filters: "Product Name", "Price", "Delivery Charge", and "Shipping Days".

Figure 8.5: Product Search

The screenshot shows the DealFinder mobile application interface. At the top, there is a navigation bar with a logo, the app name "DealFinder", a search bar containing "Laptop", and a "Login" button. Below the navigation bar is a horizontal menu with categories: Grocery, Household, Dairy, Bakery, Frozen Items, Beverages, Laptop, Mobiles, and More. On the left side, there is a sidebar with filtering options:

- Sort**: Includes checkboxes for Unit Price, Latest, Last Chance, and Fastest Shipping.
- Top Brands**: Includes checkboxes for Brand name (with three sub-options) and Brand A.
- Discount Types**: Includes checkboxes for Free Shipping, \$ off, % off, and Buy 1 Get 1.

The main content area features a search bar at the top. Below it, four product cards are displayed, each representing a product from "Brand A". Each card includes a placeholder image, the brand name, product name, price, delivery charge (\$0), and shipping days.

Figure 8.6: Filtering

The screenshot shows the DealFinder mobile application interface with a user menu open. The top navigation bar includes a logo, the app name "DealFinder", a search bar with placeholder text "Search for products, brands etc.", and a "User" icon with a dropdown arrow. The horizontal menu below the search bar includes categories: Grocery, Household, Dairy, Bakery, Frozen Items, Beverages, Laptop, and Mobiles. Below the categories are four tabs: Featured Products, Top Offers, Trending Deals, and Editor's pick. The main content area displays a section titled "Featured Products" with a large image placeholder labeled "Product Image". To the right of the image is a dark box containing "Product Name", "Price", and "Special Deal(if any)". Below this box is a paragraph of placeholder text: "Details Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text dfsd sdv". To the left and right of the image are navigation arrows. Below this section is a heading "Top Offers" followed by five smaller product cards, each with a placeholder image, product name, price, and a bookmark icon.

Figure 8.7: User Menu

Saved Items

- Name
Price
Details

*Not available in stock anymore

Figure 8.8: Saved Items

Purchase History

Sort by Date ▾

Bronze Silver

- Name
Purchase Date & Time
Price
- Name
Purchase Date
Price
- Name
Purchase Date
Price
- Name
Purchase Date
Price

Figure 8.9: Purchase History

The screenshot shows the DealFinder website interface. At the top, there is a navigation bar with categories: Grocery, Household, Dairy, Bakery, Frozen Items, Beverages, Laptop, and Mobiles. A search bar is located at the top right. On the far right, there is a user profile icon with a dropdown menu containing links: Homepage, Saved Items, Purchase History, Vouchers (which is highlighted), Settings, and Logout.

Vouchers

Website	Voucher ID	Amount
Meenaclick.com	123456	500 taka
shwapno.com	345344	100 taka
startech.com.bd	343435	1000 taka

Figure 8.10: Vouchers

The screenshot shows the DealFinder website interface with the Settings section selected. The top navigation bar and user profile are identical to Figure 8.10. The main content area displays form fields for user information:

- Username:** John Doe
- Email ID:** johndoe@gmail.com
- Date of Birth:** 23/08/1999

At the bottom, there are two buttons: Change Settings and Change Password.

Figure 8.11: Settings

Bibliography