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المخلص

يُقدّم المشروع موقعًا إلكترونيًا لسلسلة محلات فراح للزبي الشرعي، حيث يقوم الزبون بشراء الزبي المعروف بتفاصيل مثل السعر، واللون، والقياسات، والعلامة التجارية، والكمية المتوفرة للتصميم الواحد، إضافةً إلى صور للزبي من زوايا مختلفة. كما يتيح الموقع خاصية التقييم ليتم عرض الأزياء الأكثر طلبًا بشكل مميز كأزياء مفضلة عند الزبائن، وتزويد الإدارة بالمعلومات بشكل دوري. ظهرت هذه الفكرة نتيجة عدم توفر موقع رسمي لهذه السلسلة، بالإضافة إلى انعدام كفاءة البدائل التي تستهلك وقتًا وجهدًا وعدد موظفين، وتقلل من كفاءة الإنتاجية. يهدف هذا المشروع إلى رفع كفاءة الإنتاجية وتقليل الحاجة للتواصل المباشر بين الزبائن والموظفين، وتسهيل عملية الطلب، ورفع مستوى الخدمة بشكل عام. يتميز الموقع بإمكانية الاستخدام من شتى أنواع الأجهزة مثل الهواتف، والألواح الذكية، والحواسيب. بالإضافة إلى ذلك، يشمل نطاق المشروع مدينة الخليل بشكل خاص، وباقي مدن الضفة الغربية بشكل عام. يستهدف المشروع فئة النساء ذوات الاهتمام باللباس الشرعي الذي يشمل الجلابيب، والعباءات، والمعاطف الطويلة، والقفاطين، والحقائب، والحجاب بأنواعه المختلفة. كما ذكرنا، يعمل هذا المشروع على أتمتة بعض العمليات التي تتم بشكل يومي في محلات فراح للزبي الشرعي، الأمر الذي يقلل من استهلاك الموارد البشرية ويرفع من كفاءة الإنتاجية، وزيادة العرض والطلب، وتحسين الخدمة، وتسهيل الإدارة لهذه العمليات، وذلك بعمل متجر إلكتروني متميز يوفر معلومات كافية للزبائن لاتخاذ قرارات الشراء دون الرجوع المستمر للموظفين. ويقود ذلك إلى وجود نظام تغذية راجعة يرفع مستوى الرضا لدى الزبائن، ويساعد الإدارة في اتخاذ قرارات الاستيراد للمواسم المختلفة.

Abstract

The project is represented as a website for the Farrah store franchise that allows customers to buy the displayed outfit. The outfit information includes price, color, measurements, brand, the number of available outfits of that specific design, and some images of the outfit from different angles. The website contains many features, such as displaying the most positively reviewed outfits as recommended outfits, and provides management with the results of different reviews periodically to help with purchasing decisions. One of the points that inspired the project was the unavailability of an official website for the franchise and the lack of efficiency in substitutes, which require a lot of time, effort, and several employees to manage communication with customers, decreasing the overall productivity of the franchise. This project aims to increase overall productivity, reduce the need for customers to contact employees directly, and raise the level of service. The website can be used on many different devices, such as PCs, laptops, smartphones, and tablets. The geographic scale of the project includes primarily the customers of Hebron city and generally the rest of the West Bank. The targeted segment of customers is women who are interested in Islamic clothing, such as gowns, scarves, and modest dresses. As mentioned, this project automates some of the operations that take place daily in stores and provides feedback to management, which helps in making purchasing decisions, decreases the consumption of some resources, and increases the overall productivity of the franchise.

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Chapter 1

Introduction

1.1 Introduction

1.2 General overview

1.3 Problem Statement

1.4 Available alternatives of the project

1.5 Project Motives

1.6 Project Scope

1.7 Project End Goals

1.8 context diagram

1.9 Task Scheduling

1.1 Chapter Overview

In this chapter, we will present an overview of the project by addressing the problem statement of the project, the available alternatives of the project with a feasibility study, the motives behind this project, the scope of the project, the end goals, and the ways to achieve them and a general perception of the system through the context diagram.

1.2 Project Overview

The project is a website for the Farrah Islamic Clothing Stores that showcases the outfits distinctively and attractively to customers. It automates some of the operations that take place daily and facilitates purchase decisions for customers and management, which reduces the consumption of human resources and raises the efficiency of productivity, and the level of service.

1.3 Problem Statement

The problems that inspired the project are the huge waste of human and general resources due to inefficient substitutes which decreases the quality of service and customer satisfaction.

1.4 Available alternatives and feasibility study of the project

The available alternative to our project idea is the social media pages (Facebook, Instagram, etc.). The pages are used to display the available outfits with their pictures without details, which leads to customers communicating with employees directly through the use of direct

messages and comments, which consumes several employees to respond to each request and complete each purchase separately.

This table demonstrates the long-term and short-term cost difference between our project and the alternatives.

Table 1 Feasibility study

	Short Term Cost (First Month)	Long Term Cost (1 Year)	Number of Required Employees	Salary of Required Employee
Project	1000\$+5000\$ Project cost +) management (employee Salary	5000\$+(1000\$*12) (Project cost + management employee Salary in 1 year)	One employee to manage the website	1000\$
Alternatives	3000\$ The salary of three) employees That are required to manage at least 3 social media pages and close deals manually with each (customer	12* 3000\$ (The salary of three employees That are required to manage at least 3 social media pages and close deals manually with each customer in one year)	Three employees are required to manage at least 3 social media pages and close deals manually with each customer	3000\$

1.5 Project Motives

The increasing and rapid growth of Farrah clothing stores, the expansion of production, and the increase in the items offered led to an increase in the number of employees and the need to improve the management of buying, selling, and marketing operations. The latter happened due to the inability of alternatives to meet these needs. It inspired us to develop an official website that automates the buying and selling processes, which allows us to reduce the number of employees and increase the overall productivity of the chain.

1.6 Project Scope

The project's target audience consists of women who are interested in Islamic dress, which includes gowns, scarves, and modest dresses of various types. The scope of the project also includes customers from Hebron City in particular and the West Bank in general. Customers can use the site through various types of devices such as smartphones, tablets, and computers.

1.7 Project End Goals

- Expand the customer segment
- Reduce the number of required employees
- Increase the overall productivity
- Increase sales and profits
- Increase quality of service

1.8 Context diagram:

Figure 1 demonstrates the customer and the management employee interactions with the system.



Figure 1 Context Diagram

1.9 Task Scheduling

Table 2 shows the estimated time for each task in the project.

Table 2: Estimated Time for Development

Task No.	Task Name	Number of weeks Estimated.
1	Planning And Collecting Information	6

2	Requirement Specification	6
3	System Design	6
4	System Development	6
5	System Testing	4
6	Documentation	Through the Entire Project

Table 3 shows an Agile Gantt chart with the necessary tasks that were accomplished throughout the Project.

- Each row represents a high-level task or activity.
- Columns represent different iterations.
- Tasks are broken down into manageable chunks that can be completed within a single iteration.
- Tasks that span multiple iterations indicate ongoing work or tasks that need to be revisited.
- "✓" denotes which tasks are planned for each iteration.

Table 3 Gant Chart

Task	iteration 1	iteration 2	iteration 3	iteration 4	iteration 5	iteration 6
Iteration Planning	✓	✓	✓	✓	✓	✓
Stakeholder Feedback	✓	✓	✓	✓	✓	✓
Documentation	✓	✓	✓	✓	✓	✓
User Stories & Requirements Gathering	✓	✓	✓			
Design	✓	✓				
Frontend Development			✓			
Backend Development			✓	✓	✓	
Database Implementation			✓	✓		
System Testing				✓	✓	✓

1.10 Conclusion

Through this chapter, we discussed many things like addressing the problem statement of the project, the available alternatives of the project with a feasibility study, the motives behind this project, the scope of the project, the end goals, and the ways to achieve them, and a general perception of the system through the context diagram.

Chapter 2

Requirement specification

2.1 Introduction

2.2 Functional Requirements

2.3 Nonfunctional Requirements

2.4 Requirement Table

2.5 Conclusion

2.1 Chapter Introduction

This chapter shows the requirements specification for the website through Nonfunctional requirements and functional requirements that include a use case diagram, and use case templates (or use case description).

2.2 Functional Requirement

2.2.1 Requirements of the customer side

- The ability to view every detail of the outfits
- Adding the outfits to the cart
- Placing Orders
- Review each outfit
- The ability to contact the website manager

2.2.2 Requirements of the Website Manager

- Scan Reviews
- Classify Orders
- Adding Outfits
- Contact customers

2.3 Nonfunctional Requirements

It is considered a set of recognized standards that are followed when building new systems to obtain the highest possible efficiency, which the system is capable of achieving.

2.3.1 User friendly

The website design should be consistent with the theme of Farrah stores to make the users feel welcome and will follow the standards of a responsive web design to ensure a smooth and easy shopping experience for the users on different devices.

2.3.2 Security and data confidentiality

Security and data confidentiality are among the most important requirements within any system as it contains data for customers and management employees. The security and confidentiality of the data will be ensured by not allowing anyone to enter the site as a user except for the management employee, the customers browse the site and place orders without the need to enter as registered users.

2.3.3 System development and maintainability

Due to the continuous development of technology and the expansion of the company, the ability to develop and maintain is an obvious presence within the system, and this is done through periodic maintenance operations.

2.4 General use case Diagram

This is a use case diagram to illustrate the general interactions between the users, the management employee, and the system.

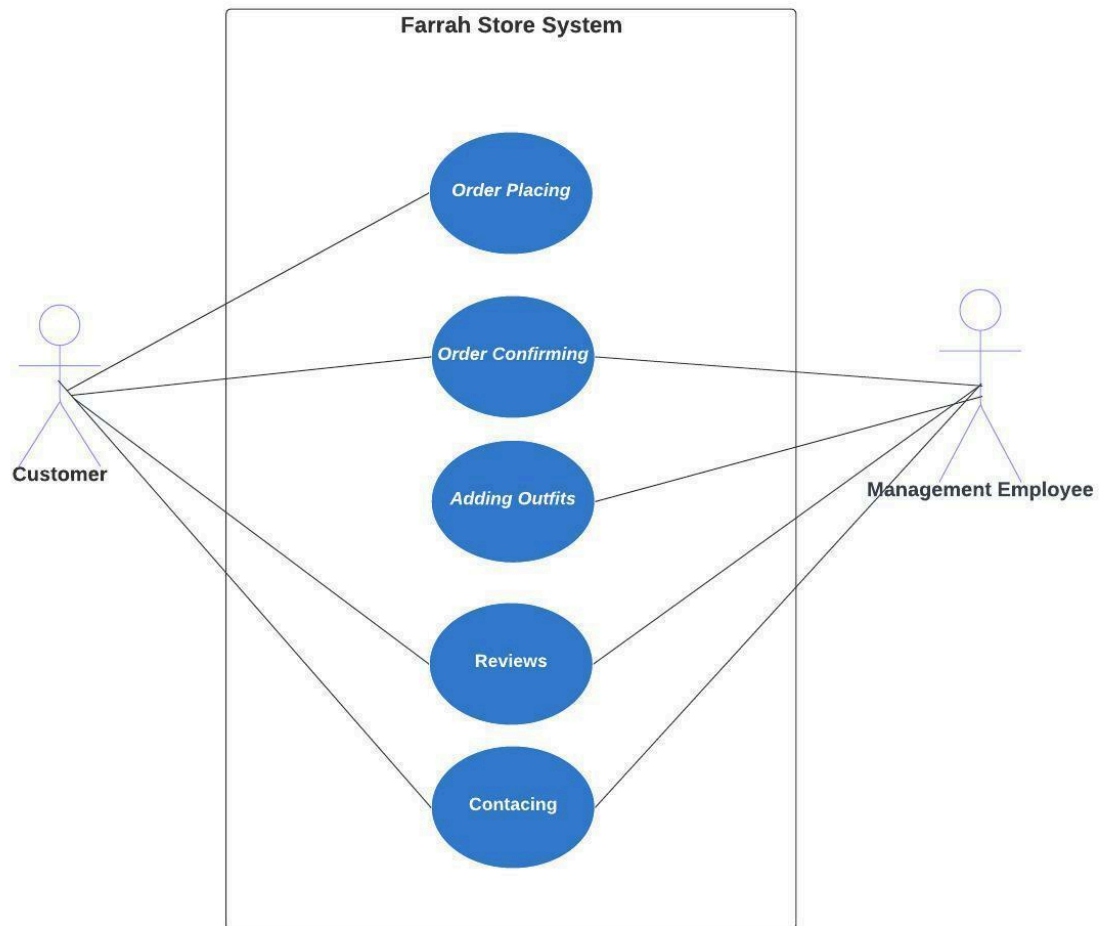


Figure 2 General use case Diagram.

2.5 Requirement Table

These tables and figures will explain basic scenarios, exceptions, and requirements (actors, viewpoints, and triggers) of the system throughout different stages.

2.5.1. Order Placing

Table 4 Order Placing

ID	#1
Name	Order Placing
Description	It shows a pop-up form for the customer to fill in his personal information and place the order.
Actors	Customer, Website Database
Viewpoints	Customer
Trigger	The Customer fills his cart with desired products.
Procedures (Scenario)	1-After the Customer finishes browsing the website and adding desired products to the cart. 2-The Customer Clicks on place order button inside the cart page. 3- A form will pop up on the screen asking the customer to fill in important information related to the order (name, email, phone, address, credit info)
Exceptions	1. IF the customer enters invalid input, then the site will show an error message "Please try again" 2. User left an empty field the website will show an error message "Please fill the empty field"

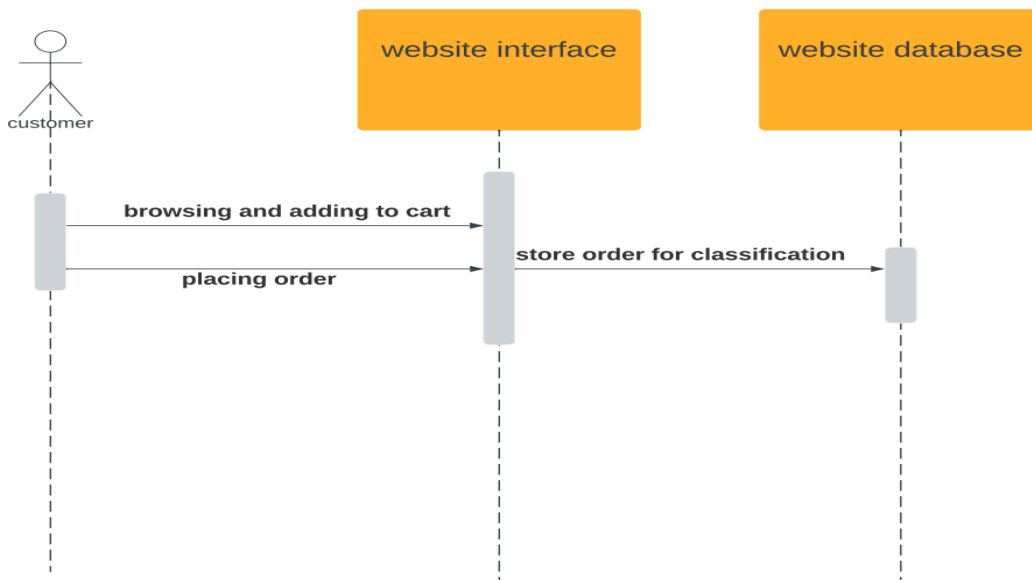


Figure 3 Order Placing

2.5.2. Order Confirming

Table 5 Order Confirming

ID	#2
Name	Order Confirming
Description	The Management Employee reviews the orders placed to decide if the order is accepted or not.
Actors	Management Employee, Website Database
Viewpoints	Management Employee
Trigger	Management Employee Review for placed orders
Procedures (Scenario)	<ol style="list-style-type: none">1- Management Employee clicks on the review orders button2- Management Employee Scans the order info3- Management Employee classifies each order as accepted or denied4- Management Employees will schedule the accepted orders with the delivery company5- Customers with accepted orders will receive an email estimated time for delivery6- Customers with denied orders will receive an email to inform them that their order was denied
Exceptions	User leaves an empty field the website will show an error message "Please fill the empty field"

Figure 4 Order Confirming

2.5.3. Reviews

Table 6 Reviews

ID	#3
Name	Reviews
Description	The feature that helps customers and management in making purchasing decisions.
Actors	Customer, Management Employee, Website Database
Viewpoints	Customer, Management Employee
Trigger	The customer puts a comment or star system or both.
Procedures (Scenario)	1-Customer taps on the review section inside the outfit review page 2-Rates the outfit using the start system (1-5) 3-Customer can leave a comment (optional) 4-System decides how to rank each outfit on the website. 5-After time Management Employee reads the result of the review Table provided by the system

database

Figure 5 Review

2.5.4. Adding Outfits

Table 7 Adding Outfits

ID	#4
Name	Adding Outfits
Description	The Management Employee Adds new outfits Periodically
Actors	Management Employee, Website Database
Viewpoints	Management Employee
Trigger	Change of Seasons
Procedures (Scenario)	<ol style="list-style-type: none"> 1- Management Employee signs in with the management account 2- Clicks add outfit button 3- A form will pop up on the screen asking the Management Employee to fill in important information related to the outfit /product (price, color, outfit measurements, outfit brand, number of available outfits of that specific design, and some images of the outfit from different angles) 4- Newly added outfits will be available for customers to review and buy
Exceptions	<ol style="list-style-type: none"> 1. IF a management employee enters an invalid input, then the site will show an error message "Please try again" 2. User left an empty field the website will show an error message "Please fill the empty field"

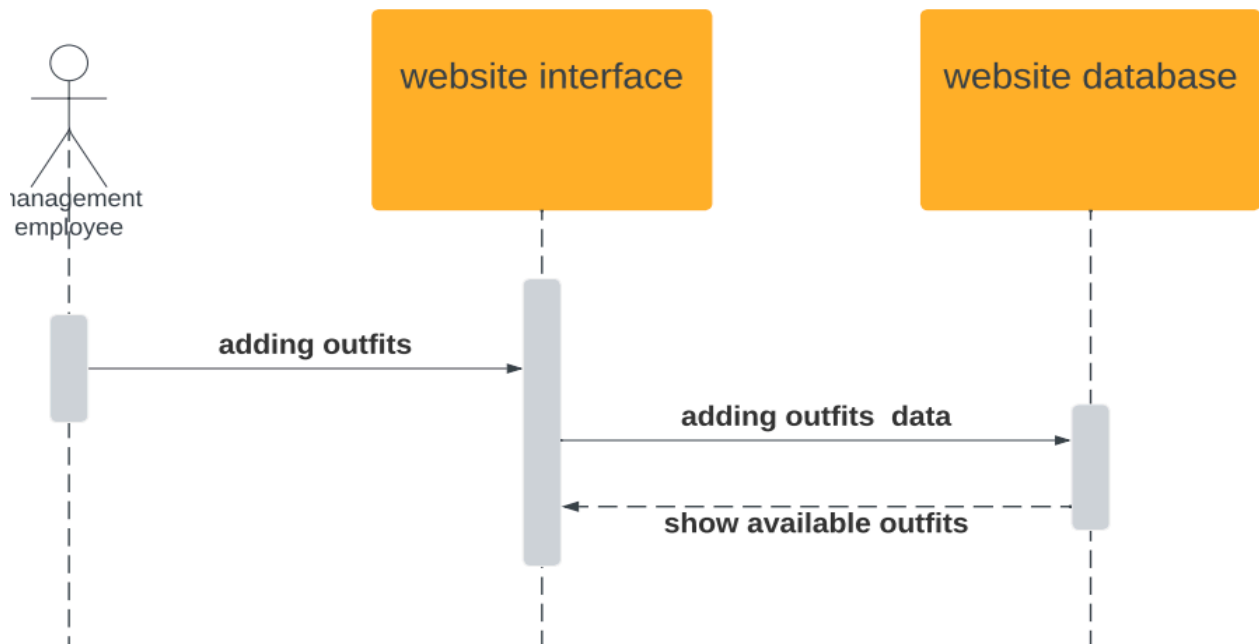


Figure 6 Adding Outfits

2.5.5. Contacting

Table 8 Contacting

ID	#5
Name	Contacting
Description	Customers contact management employees and vice versa.
Actors	Customer, Management Employee
Viewpoints	Customer, Management Employee
Trigger	Customer, Management Employee
Procedures (Scenario)	1-Customers can use the chat box inside the website to ask questions related to products or orders. 2-management employee reply to the customers
Exceptions	If the customer enters an invalid input, then the site will show an error message "Please try again"

Figure 7 Contacting

2.6 Conclusion

We have illustrated in this chapter the requirements specification for the website through Nonfunctional requirements and functional requirements that include a use case diagram, and use case templates (or use case description).

Chapter 3

System Design and Architecture

3.1 Introduction

3.2 General use case Diagram

3.3 Class Diagram

3.4 E-R Diagram

3.5 Sequence Diagram

3.6 Conclusion

3.1 Introduction

In this chapter, we will be showing various diagrams that represent the conceptual design of the system of the website.

3.2 Class Diagram

This diagram clarifies the structure of classes and functions and how are they linked in the system.

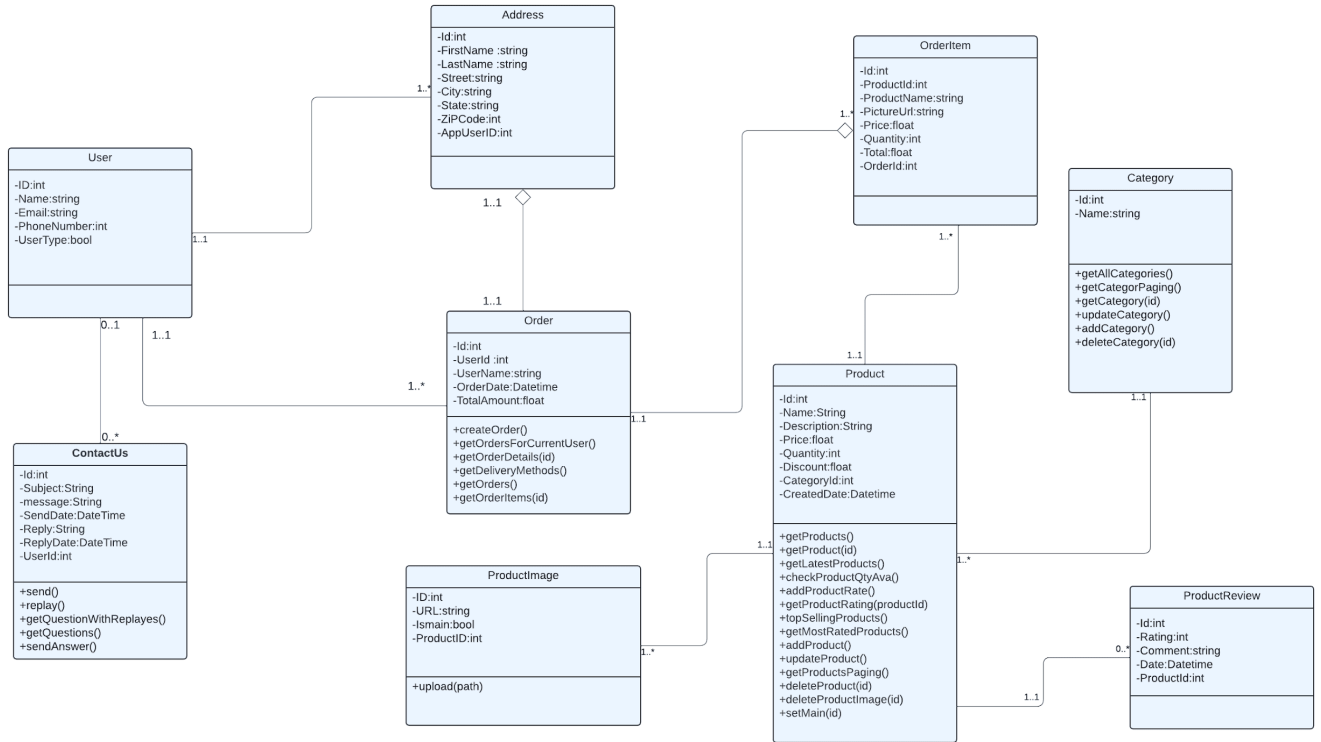


Figure 8 Class Diagram

3.3 E-R Diagram

This ERD will serve as an easy way to understand the relationships between different data entities in the database.

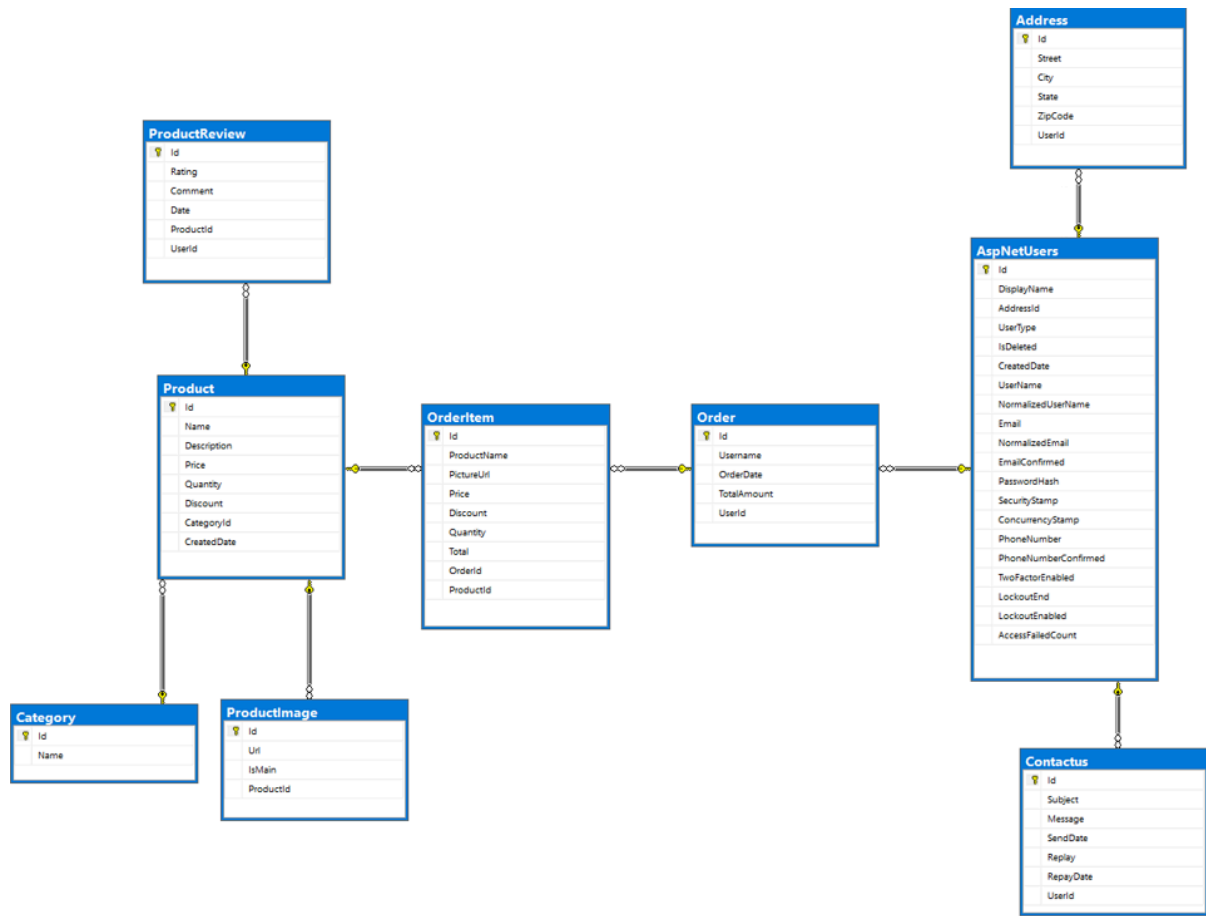
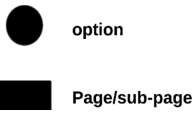


Figure 9 E-R Diagram

3.4 Ssite map

This site map shows the page routes and the choices that the user can make while browsing the website.



User page

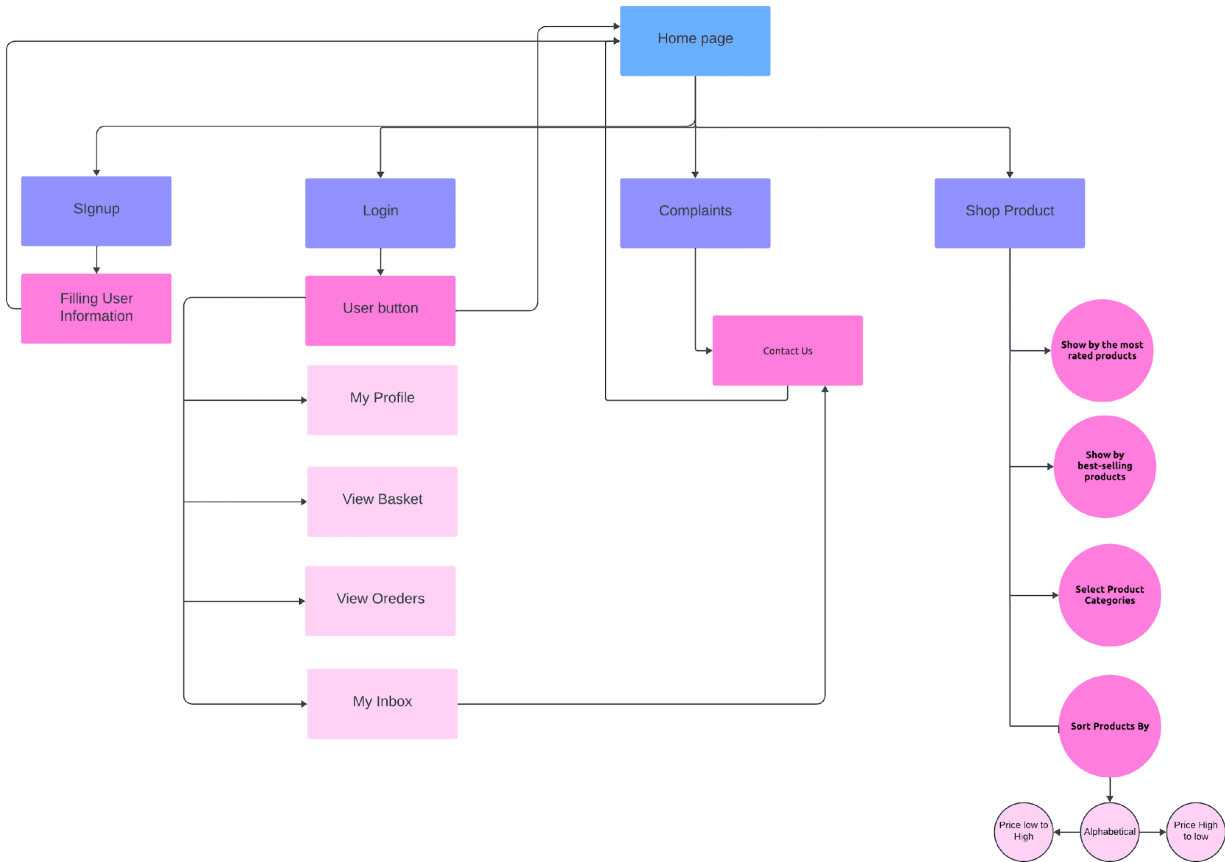


Figure 10 Site map for user

This site map shows the pages and subpages for the admin side of the website.

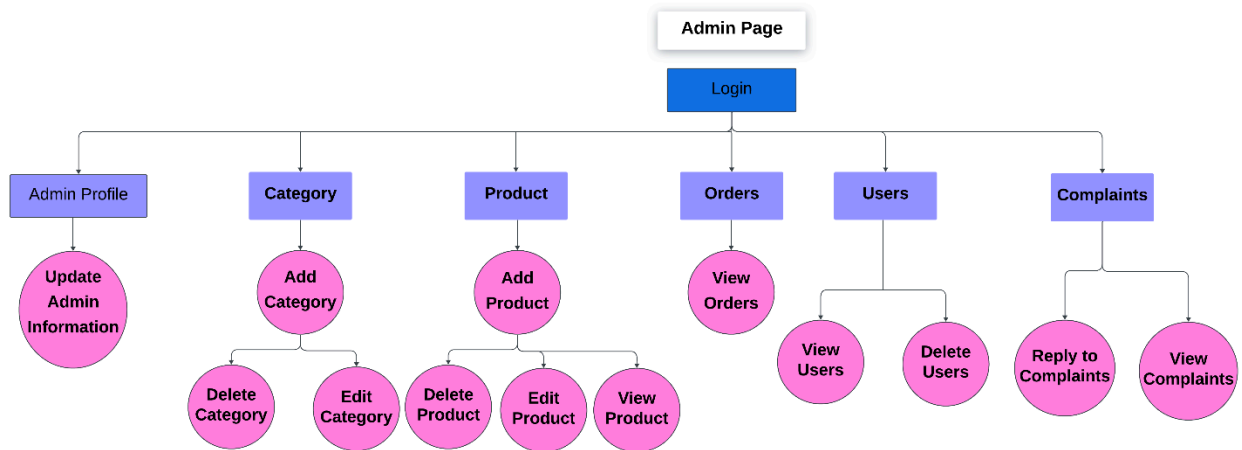


Figure 11 Site map for Admin

3.5 Database tables Table:

These tables will showcase the basic format of the tables in the database of the system.

Table 9 Product Image Data Table

Att. No.	Att. Name	Type	Length	Unique	Allow Null	Discription
1	Id	int	5	Yes	No	Primary Key
2	Url	nvarchar	100	No	No	The URL of the image
3	IsMain	bool	1	No	No	determine if the image is the main one
4	ProductId	int	5	No	No	foreign key

Table 10 category Data Table

Att. No.	Att. Name	Type	Length	Unique	Allow Null	Discription
----------	-----------	------	--------	--------	------------	-------------

1	Id	int	5	Yes	No	Primary Key
2	name	nvarchar	50	No	No	name of the category

Table 11 Product Data Table

Att. No.	Att. Name	Type	Length	Unique	Allow Null	Discription
1	id	int	5	Yes	No	Primary Key
2	name	nvarchar	50	No	No	name of the product
3	Discription	nvarchar	200	No	Yes	a paragraph that describes attributes of the product like (color, size, brand, etc...)
4	Price	decimal	(5, 2)	No	No	price of the product
5	Quantity	int	5	No	No	quantity of the product
6	Date Add/modified	datetime	(7)	No	No	the day of adding or modifying the product
7	Discount	decimal	(5, 2)	No	No	the amount of discount
8	Category Id	int	5	No	No	category of the product

Table 12 Order Data Table

Att. No.	Att. Name	Type	Length	Unique	Allow Null	Discription
1	Id	int	5	Yes	No	Primary Key
2	username	nvarchar	50	No	No	The name of the user
3	Order Date	datetime	(7)	No	No	The Order Date
4	Total Amount	decimal	(5, 2)	No	No	The total cost of the order
5	Delivery Time Expected	datetime	(7)	No	No	Delivery Time of the order

Table 13 Product Reviews Data Table

Att. No.	Att. Name	Type	Length	Unique	Allow Null	Discription
1	id	int	5	Yes	No	primary key
2	Rating	decimal	5	No	No	Rating of the product
3	Comment	nvarchar	200	No	Yes	name of the product
4	Date	datetime	(7)	No	No	Date of review

5	Product Id	int	5	No	No	foreign key
---	------------	-----	---	----	----	-------------

Table 14 Order item Data Table

Att. No.	Att. Name	Type	Length	Unique	Allow Null	Discription
1	id	int	5	Yes	No	primary key
2	Product Id	int	5	No	No	foreign key
3	name	nvarchar	50	No	No	name of the product
4	PictureUrl	nvarchar	100	No	No	The URL of the image
5	Price	decimal	(5, 2)	No	No	price of the order
6	Quantity	1nt	6	No	No	quantity of products
7	Total	decimal	(5, 2)	No	No	the total price of the order after a sales coupon
8	OrderId	int	5	No	No	foreign key

Table 15 Contacts Data Table

Att. No.	Att. Name	Type	Length	Unique	Allow Null	Discription
1	id	int	5	Yes	No	Primary Key
2	subject	nvarchar	50	No	No	Subject of the user message
3	message	nvarchar	200	No	No	The user message content
4	Send date	datetime	(7)	No	No	The date the message was sent
5	reply	nvarchar	200	No	No	The admin reply content
6	reply date	datetime	(7)	No	No	The date the reply was sent
7	user Id	int	5	No	No	foreign key

Table 16 App user Data Table

Att. No.	Att. Name	Type	Length	Unique	Allow Null	Discription
1	Id	int	5	Yes	No	Primary Key
2	username	nvarchar	50	No	No	The name of the user
3	Normalized user name	nvarchar	50	No	No	This is a normalized version of the username, for case-insensitive comparisons.
4	email	nvarchar	50	No	No	The email address associated with the user account
5	Normalized email	nvarchar	50	No	No	This is a normalized version of the email for case-insensitive comparisons.
6	PasswordHash	nvarchar	60	No	No	the hashed representation of the user's password
7	PhoneNumber	int	20	No	No	the user's phone number
8	Is deleted	bool	1	No	No	Shows if the user is deleted or not

Table 17 Address Data Table

Att. No.	Att. Name	Type	Length	Unique	Allow Null	Discription
1	Id	int	5	Yes	No	Primary Key
2	street	nvarchar	30	No	No	The street of the user
3	City	nvarchar	30	No	No	The city of the user
4	state	nvarchar	30	No	No	The state of the user
5	zipcode	nvarchar	5	No	No	The zip code of the (country, city or state)

6	user-id	int	5	No	No	foreign key
---	---------	-----	---	----	----	-------------

3.6 Sequence Diagram (General Sequence Diagram for the whole system)

This diagram showcases the process of the system as a whole

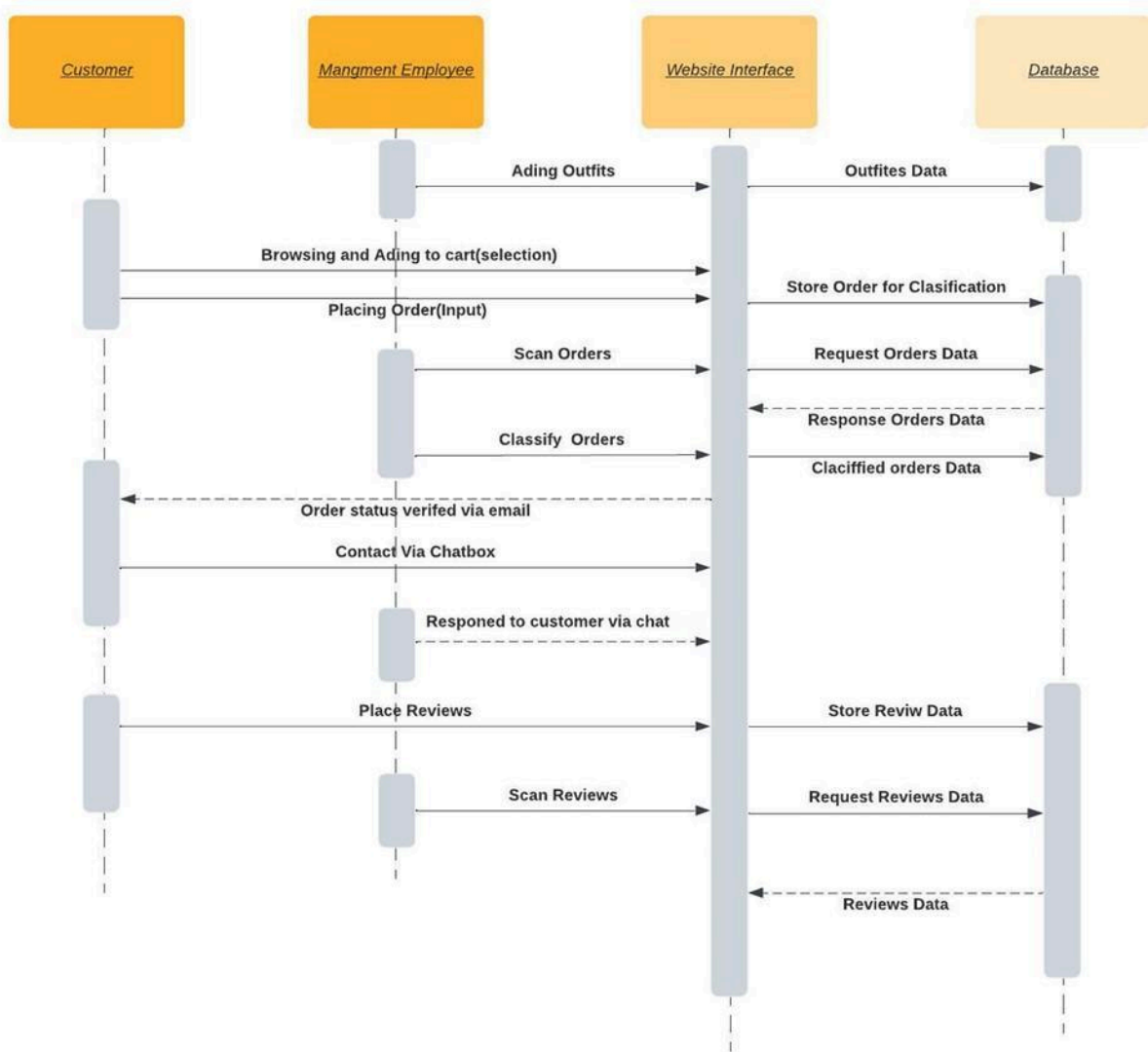


Figure 12 General Sequence Diagram for the whole system

3.7 Conclusion

In this chapter, we have shown various diagrams that represent the conceptual design of the system of the website like the General use case Diagram, E-R Diagram, Class Diagram, and General Sequence Diagram for the whole system. Also, we have shown the data dictionary for each entity in the website database.

Chapter 4 Implementation

4.1 Introduction

4.2 Requirements

4.3 Implementation Architecture

4.4 Database Implementation

4.5 Implementation Methodology

4.6 Implementation Cost

4.7 Conclusion

4.1 Introduction

This section describes the implementation details of the project, including the software and hardware requirements, implementation architecture, database Implementation, and implementation methodology.

4.2 Requirements

4.2.1 Software Requirements

The project was developed using the following software technologies:

- ASP.net core and entity framework for the back-end side. (Microsoft, 2023).
- Microsoft SQL as the database management system. (Microsoft SQL, 2023).
- HTML, CSS, typescript, and angular framework for the front-end design. (Angular, 2023).

4.2.2 Hardware Requirements

The hardware requirements for the system are as follows:

- A web server running asp.net core and Microsoft SQL. (Microsoft, 2023).
- A computer or mobile device with a modern web browser to access the system.

4.3 Implementation Architecture

The Implementation architecture is based on the client-server model, where the client interacts with the webserver to access the system. The web server handles the user requests, processes the data, and communicates with the database server to retrieve and store data. The system uses the MVC (Model-View-Controller) architecture pattern to separate the application logic, data presentation, and user interaction as shown in the Figure below. (Microsoft, 2023).

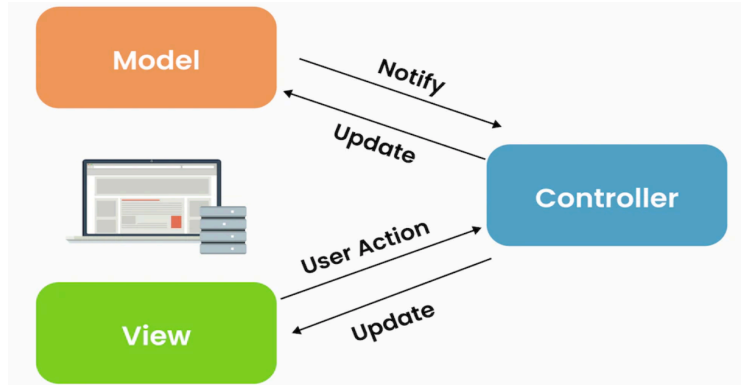


Figure 13 MVC Architecture Diagram

4.4 Database Implementation

The database design follows the Code first model, with the following basic entities and their relationships using the repository pattern:

4.4.1 Basic entities: this is the core of the data

- App user: user information.
- Category: category information.
- Product: product information.
- Product review: review information.
- Product image: image information.
- Order: order information.
- Order item: order item information.
- Address: user/order address information.
- Contact us: information necessary for communication between the admin and the user.

4.4.2 Data Context: contains the relationships between the entities in the database. The DB sets are used to create tables of data.

This image shows the DB context used in this implementation (Store Context).

```
base.OnModelCreating(modelBuilder);
modelBuilder.ApplyConfigurationsFromAssembly(Assembly.GetExecutingAssembly());

modelBuilder.Entity<Product>()
    .HasOne<Category>(s => s.Category)
    .WithMany(g => g.Products)
    .HasForeignKey(s => s.CategoryId);

modelBuilder.Entity<Product>()
    .Property(p => p.Description).HasMaxLength(1000);

modelBuilder.Entity<AppUser>()
    .HasMany(c => c.AddressList)
    .WithOne(e => e.AppUser)
    .HasForeignKey(f => f.UserId);

modelBuilder.Entity<AppUser>()
    .HasMany(c => c.ContactusList)
    .WithOne(e => e.AppUser)
    .HasForeignKey(f => f.UserId);

modelBuilder.Entity<AppUser>()
    .HasMany(c => c.OrderList)
    .WithOne(e => e.AppUser)
    .HasForeignKey(f => f.UserId);

modelBuilder.Entity<OrderItem>()
    .HasOne(oi => oi.Order)
    .WithMany(o => o.OrderItems)
    .HasForeignKey(oi => oi.OrderId);

public DbSet<Product> Product { get; set; }
public DbSet<Category> Category { get; set; }
public DbSet<Order> Order { get; set; }
public DbSet<OrderItem> OrderItem { get; set; }
public DbSet<DeliveryMethod> DeliveryMethod { get; set; }
public DbSet<Contactus> Contactus { get; set; }
public DbSet<ProductReview> ProductReview { get; set; }
```

Figure 14 Data context (store context)

4.4.3 Database migrations

Triggered by the command (add-migration Create_DB) the entity framework uses the data context shown in the figure above and the entities to create a database in the DBMS that is specified as a default connection (SQL management studio). (Microsoft, 2023).

This figure shows the concept of the migration process.

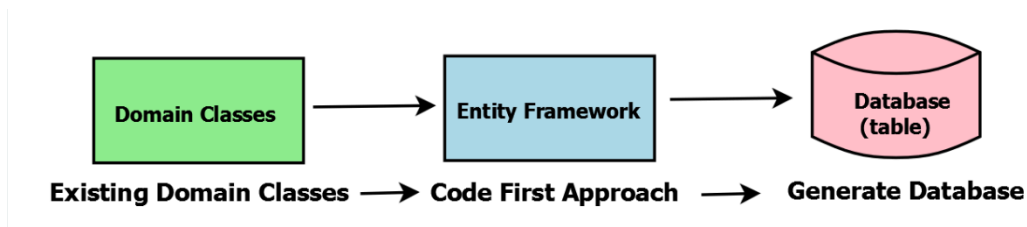


Figure 15 Entity framework data migration. (Microsoft, 2023).

4.5 Implementation Methodology

The implementation methodology follows the Agile software development approach, with iterations and continuous feedback from stakeholders. The project was implemented using a combination of manual coding and open-source libraries and frameworks, such as entity framework, .net, and angular. The testing process included two main parts user page testing and Admin page testing. (Microsoft, 2023).

4.6 Implementation Cost

This table shows software and hardware costs for our web application.

Table 18 Implementation cost

Aspect	Description	Cost
Development Tools and Frameworks	Cost of development tools, frameworks, and libraries	frameworks and libraries are open source=\$0
Payment Gateway Integration	Fees for integrating with payment gateway providers (e.g., PayPal, Stripe)	Transaction fees + setup
Web Hosting	Cost of hosting the website	\$50 - \$300+ per month
Software license cost	Cost of professional Visual Studio 2023	\$45 per month
Domain Name Registration	Cost to reserve a domain name	\$50 or more
Hardware cost	Cost of hardware and maintenance for managing servers	500\$
Backup and Disaster Recovery	Cost of implementing backup and disaster recovery solutions	500\$

4.7 Conclusion

This section describes the implementation details of the project, including the software and hardware requirements, implementation architecture, database Implementation, and implementation methodology.

Chapter 5

System Testing

5.1 Introduction

5.2 User page testing

5.3 Admin Page Testing

5.4 Conclusion

5.1 Introduction:

This chapter will cover the system testing processes, supplemented by images illustrating successful operations. Additionally, each process will be accompanied by explanations, descriptions, and status updates.

5.2 User page testing:

These tables and figures will showcase the user page side of the system testing process.

Table 19 Sign Up Test

Test Case	Scenario	Test Data	Expected Result	Actual Result	Status
Normal Registration	The Customer fills the required fields with the correct data.	Normal Registration Data (Display Name, Email Address, Phone Number, Password, First Name, Last Name, Street, City, State, Zip Code).	Successful Registration	Successful Registration	Pass
Invalid Registration	The User Attempts to Sign up with an existing user email.	noor@hotmail.com	Failed Registration with an error message that clarifies that the email was already taken.	Failed Registration with an error message that clarifies that the email was already taken.	Pass
Invalid Registration	The User enters an invalid email Address in the signup	@hotmail.com	Failed Registration with an error message that clarifies that the email is invalid.	Failed Registration with an error message that clarifies that the email is invalid.	Pass

Invalid Registration	The User enters an invalid Password in the signup	password	Failed Registration with an error message that shows the Requirements of an acceptable Password.	Failed Registration with an error message that shows the Requirements of an acceptable Password.	Pass
Invalid Registration	The User leaves the Required information fields empty.	--	Failed Registration with an error message that shows the fields are required.	Failed Registration with an error message that shows the fields are required.	Pass

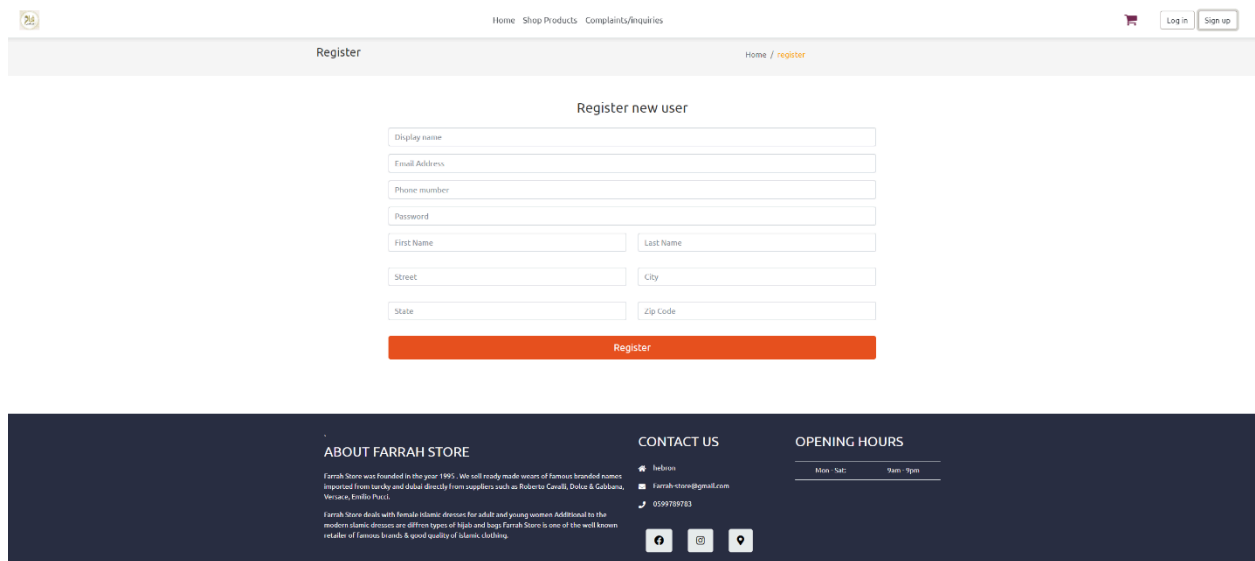


Figure 16 Normal Registration Screen

Register new user

noor

noor2@hotmail.com ✓

0599789783

***** ✓

noor farrah

isa hebron

hebron 123

Register

Figure 17 Invalid Registration Screen

Register new user

noor

noor@hotmail.com ⓘ
Email Address already taken

0599789783

***** ✓

First Name ⓘ Last Name ⓘ
First Name is required Last Name is required

Street ⓘ City ⓘ
Street is required City is required

State ⓘ Zip Code ⓘ
State is required Zip Code is required

Password must have 1 uppercase, 1 lowercase, 1 number, 1 non alphanumeric and at least 6 char
The City field is required.
The State field is required.
The Street field is required.
The ZipCode field is required.
The LastName field is required.
The FirstName field is required.

Register

Figure 18 Invalid Registration Screen

Password must have 1 uppercase, 1 lowercase, 1 number, 1 non alphanumeric and at least 6 char
 The City field is required.
 The State field is required.
 The Street field is required.
 The ZipCode field is required.
 The LastName field is required.
 The FirstName field is required.

Figure 19 Invalid Registration Screen

Table 20 Log in test

Test Case	Scenario	Test Data	Expected Result	Actual Result	Status
Normal Log in	The User fills the required fields with the correct data	User Email Address: Samir@hotmail.com Password: Samir@123	Successful Login	Successful Login	Pass
Invalid Log in	The User enters the wrong password and email	User Email Address: Samir Password: Sami	Failed Log in	Failed Log in	Pass
Invalid Log in	The User leaves empty fields wrong password and email.	--	Failed Login with an error message that shows the fields are required.	Failed Login with an error message that shows the fields are required.	Pass

Login

 ✓

Figure 20 Normal Log-in Screen

Login

 !


Invalid Email Address

 ✓

Figure 21 Invalid Log-in Screen

Login

samir@hotmail.com

Password 

Password is required

Sign in

Figure 22 Invalid Log-in Screen

Table 21 Shopping Test

Test Case	Scenario	Test Data	Expected Result	Actual Result	Status
Search	The user goes to search for products from the products page.	--	Successful	Successful	Pass
Sorting Product/High to Low /Low to High	The user sorts according to the user's convenience	--	Successful	Successful	Pass
Category Selection	The user selects a category from the available categories.	--	Successful	Successful	Pass
Add Product to Cart	The user selects a product to add to the basket.	--	Successful	Successful	Pass

Product Rating	The user rates a product by clicking the stars.	--	Successful	Successful	Pass
-----------------------	---	----	------------	------------	-------------

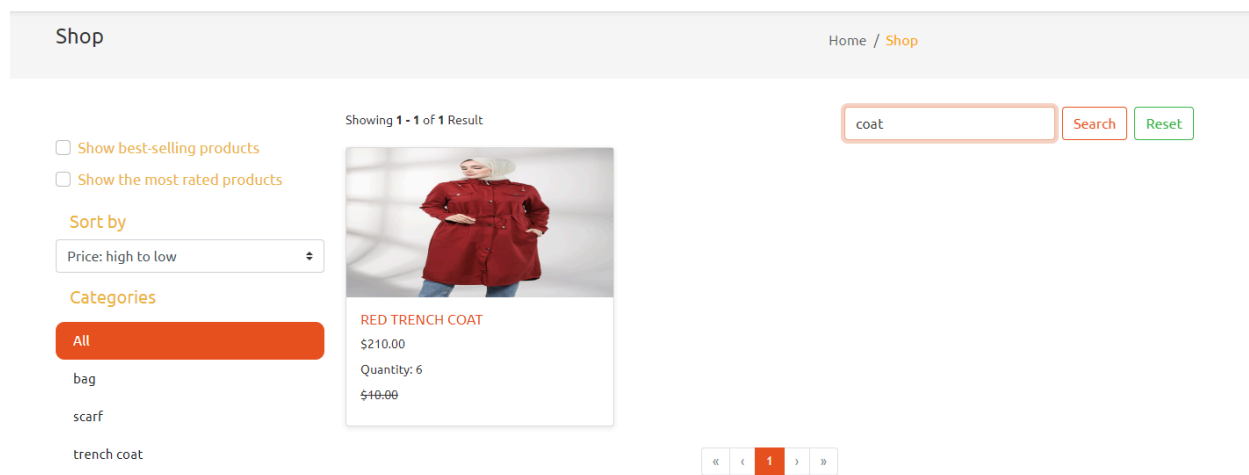


Figure 23 Search Screen

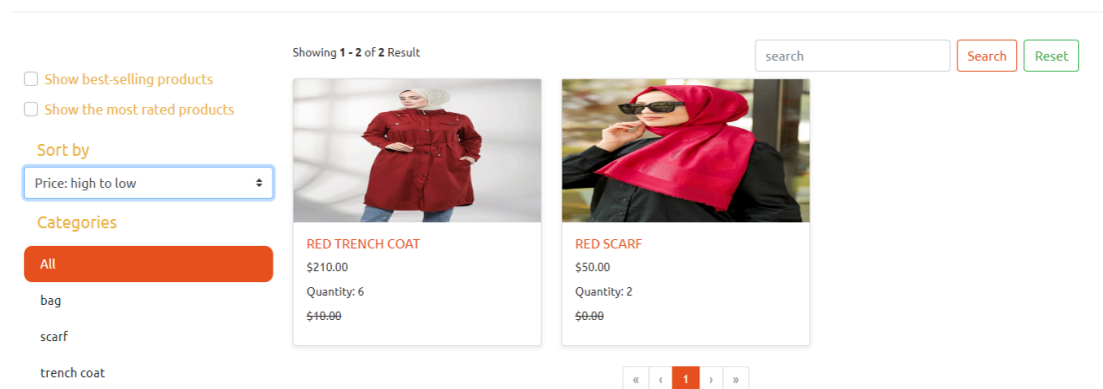


Figure 24 Sorting Product/High to Low Screen

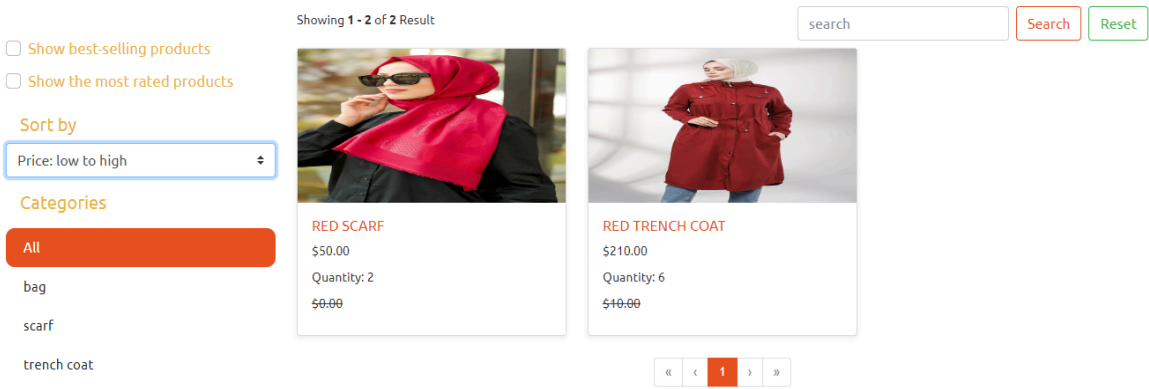


Figure 25 Sorting Product/Low to High Screen

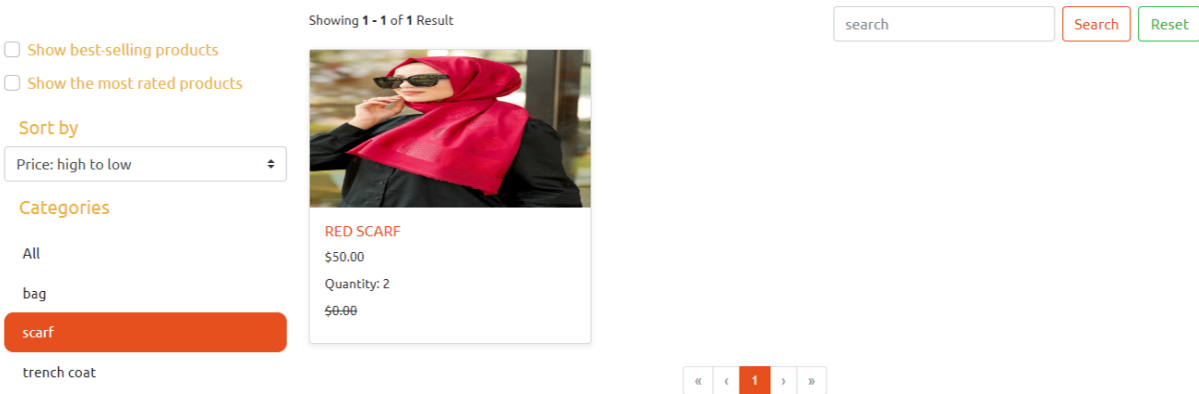


Figure 26 Category Selection Screen



red scarf

\$50.00

Quantity: 2

\$0.00

- 1 +

Add to cart

Rating ☆☆☆☆☆ 0 Users(s) rated this product

Description

red scarf

Figure 27 Add Product to Cart Screen



red scarf

\$50.00

Quantity: 2

\$0.00

- 1 +

Add to cart

Rating ★★★★★ 1 Users(s) rated this product


Figure 28 Product Rating Screen

Table 22 Checkout Test

Test Case	Scenario	Test Data	Expected Result	Actual Result	Status
Normal Checkout	After the user finishes the shopping process, the user proceeds to check by filling in the Address information, and payment information, to confirm the order.	Address Information: First Name, Last Name, street, city, state, zip code Payment information: Full name, card number, Card date, CVC	Successful Checkout	Successful Checkout	Pass
Invalid Checkout	The user leaves one or more of the required fields empty.	--	Failed Checkout with Error messages	Failed Checkout with Error messages	Pass

The screenshot displays the checkout interface. At the top, there are navigation tabs: ADDRESS (selected), REVIEW *, and PAYMENT *. Below the ADDRESS tab, the 'Shipping address' section contains several input fields: 'First Name' (filled with 'samir'), 'Last Name' (filled with 'farrah'), 'City' (filled with 'isa' and marked with a green checkmark), 'State' (filled with 'hebron' and marked with a green checkmark), and 'Zip' (filled with '123' and marked with a green checkmark). A 'Save as default address' button is located to the right of the first two fields. Below the address fields, there are two buttons: '< Back to Basket' and 'Go to delivery >'. On the right side, the 'ORDER SUMMARY' section shows the text 'Shipping costs will be added depending on choices made during checkout' and a 'Total amount' of '\$200.00'.

Figure 29 Invalid Checkout Screen

ADDRESS		REVIEW *			PAYMENT *		ORDER SUMMA
Product		Price	Quantity	Discount	Total		<i>Shipping costs w during checkout</i>
 red trench coat <i>trench coat</i>		\$210.00	1	\$10.00	\$200.00		Total amount

< Back to delivery Go to payment >

Figure 30 Normal Checkout Screen

ADDRESS		REVIEW	PAYMENT		ORDER SUMMARY
Payment Details					<i>Shipping costs will be added depending on choices made during checkout</i>
samir farrah ✓		66666666 ✓			
02/02/1990 ✓		... ✓			Total amount \$200.00

< Back to review Submit order >

Figure 31 Normal Checkout Screen

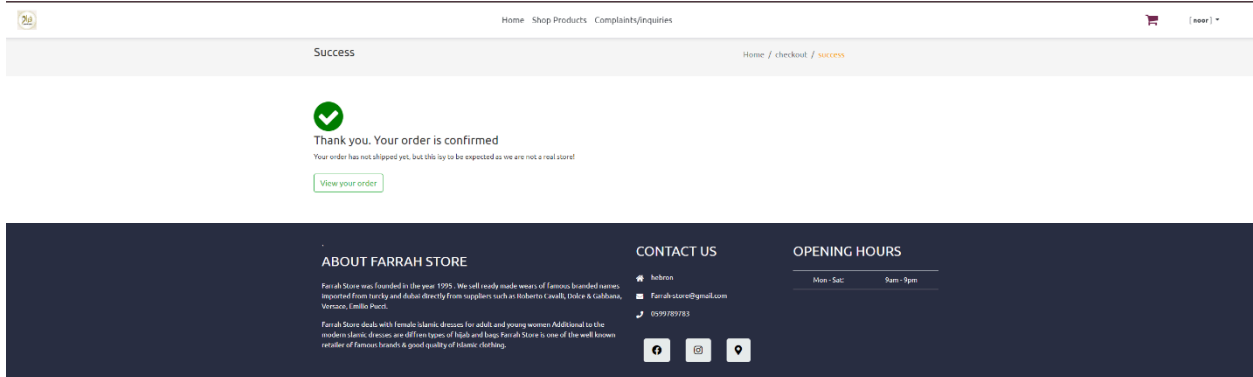


Figure 32 Normal Checkout Screen

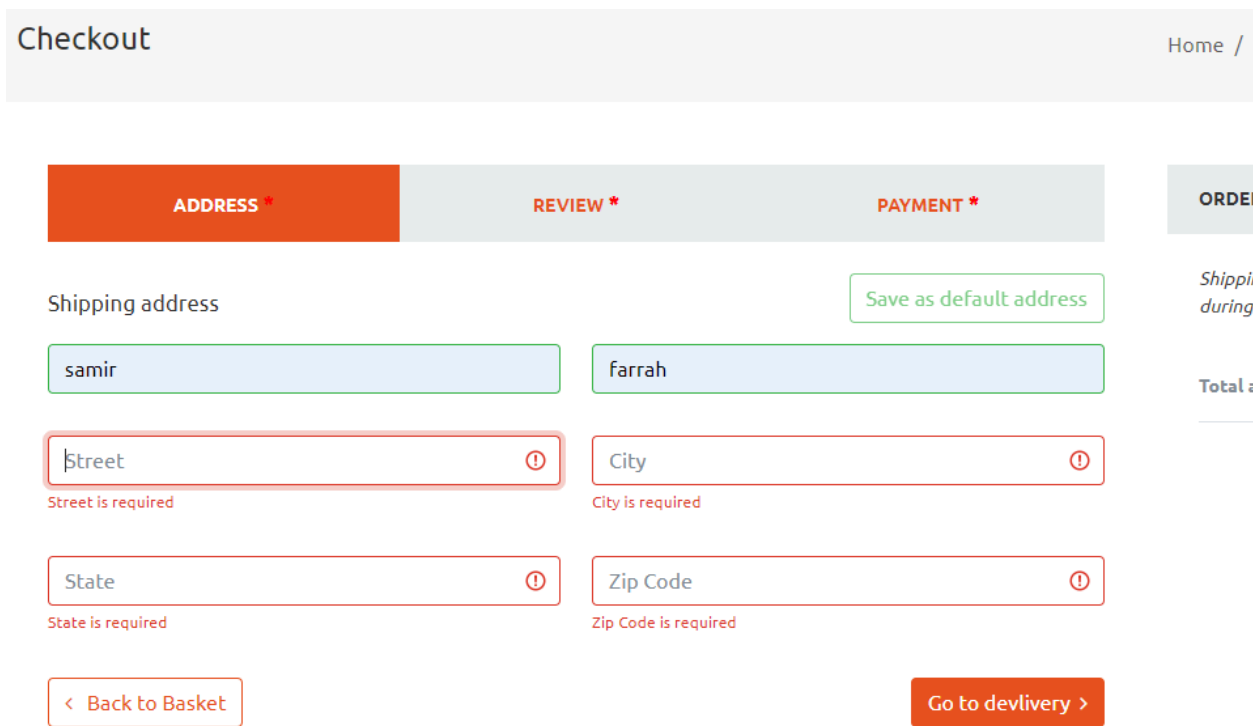


Figure 33 Invalid Checkout Screen

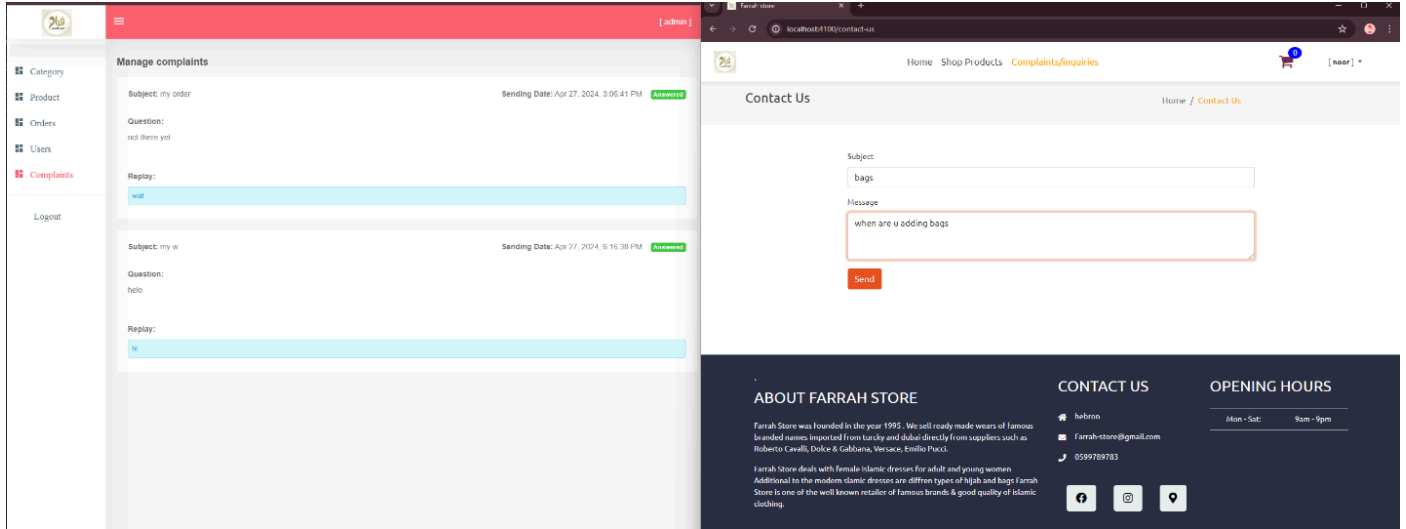


Figure 35 Submitting complaints and inquiries Screen

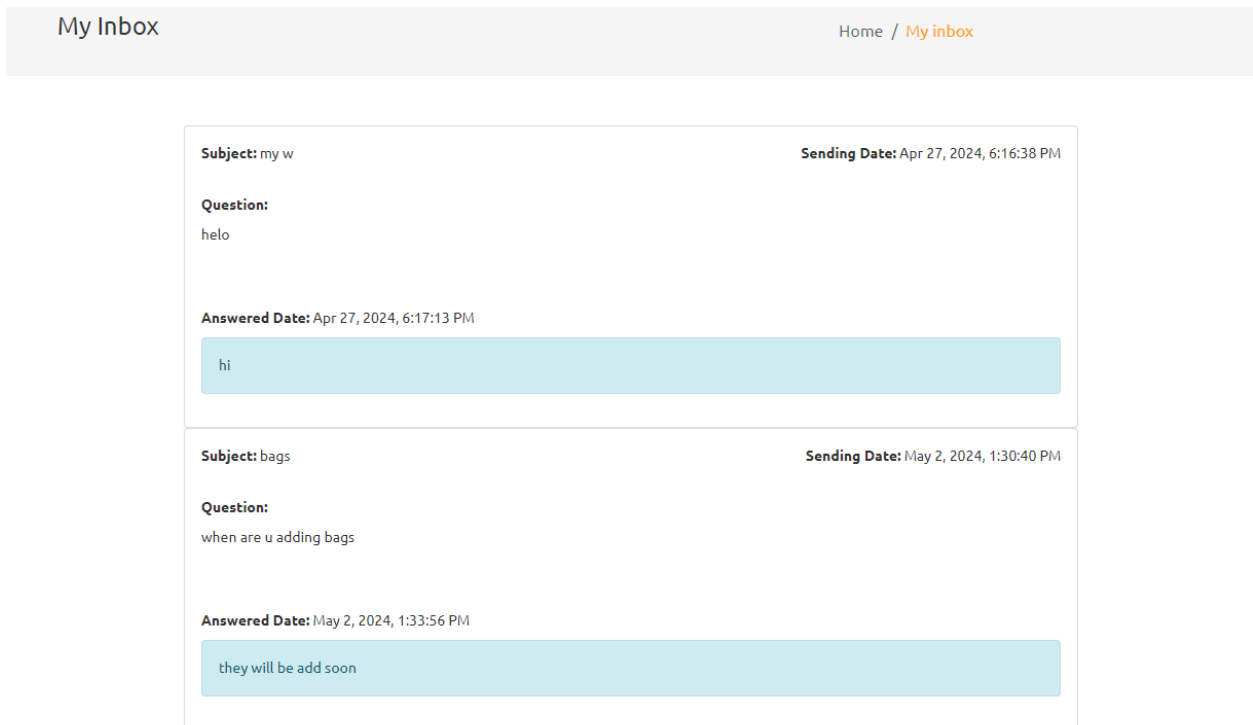


Figure 36 Admin Reply Screen

Table 24 User Profile Testing

Test Case	Scenario	Test Data	Expected Result	Actual Result	Status
-----------	----------	-----------	-----------------	---------------	--------

Normal Profile Edit	The user views and edits the profile	Altering Profile Information	Successful Editing	Successful Editing	Pass
Invalid Profile Edit	The user leaves required fields empty/invalid email	@hotmail.com	Failed Editing (Save option grayed out)	Failed Editing (Save option grayed out)	Pass
Review Orders	The user views Orders.	--	Orders viewed successfully	Orders viewed successfully	Pass
View Basket	The user views the Basket.	--	Basket viewed successfully	Basket viewed successfully	Pass
View Inbox	The user views the Inbox.	--	Inbox viewed successfully	Inbox viewed successfully	Pass

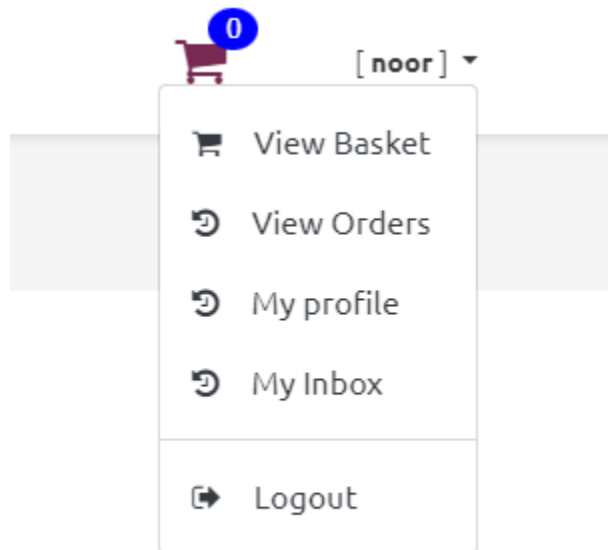


Figure 37 User Access Screen

Profile Home / [profile](#)

Personal info

Address

Figure 38 Normal Profile Edit Screen

Orders Home / [orders](#)

Order number	Date	Total amount
#3	02/05/2024, 12:00 AM	\$200.00

Figure 39 Review Orders Screen

Product	Price	Quantity	Discount	Total	Remove
 red trench coat <small>trench coat</small>	\$210.00	1	\$10.00	\$200.00	

ORDER SUMMARY

Shipping costs will be added depending on choices made during checkout

Total amount \$200.00

[Process to check out](#)

Figure 40 View Basket Screen

Subject: my w **Sending Date:** Apr 27, 2024, 6:16:38 PM

Question:
helo

Answered Date: Apr 27, 2024, 6:17:13 PM

hi

Subject: bags **Sending Date:** May 2, 2024, 1:30:40 PM

Question:
when are u adding bags

Answered Date: May 2, 2024, 1:33:56 PM

they will be add soon

Figure 41 View Inbox Screen

5.3 Admin Page Testing:

These tables and figures will showcase the admin page side of the system testing process.

Table 25 General Page test

Test Case	Scenario	Test Data	Expected Result	Actual Result	Status
Adding / Editing Categories	The admin wants to add a new category for the product	"Trench coat"	Successful add/edit	Successful add/edit	Pass
Add Product	The admin Added a new product.	Product information (name, Price, quantity, category, description, discount, upload one or multiple images)	Successful add/edit	Successful add/edit	Pass

View Orders	The admin can review orders and the details of everyone.	--	Successful orders view	Successful orders view	Pass
View/delete Users	The admin can review/delete users.	--	Successful user view/delete	Successful user View/delete	Pass
Reply/View complaints.	The admin views and replies to user complaints and inquiries	"They will be added soon"	Message received successfully	Message received successfully	Pass

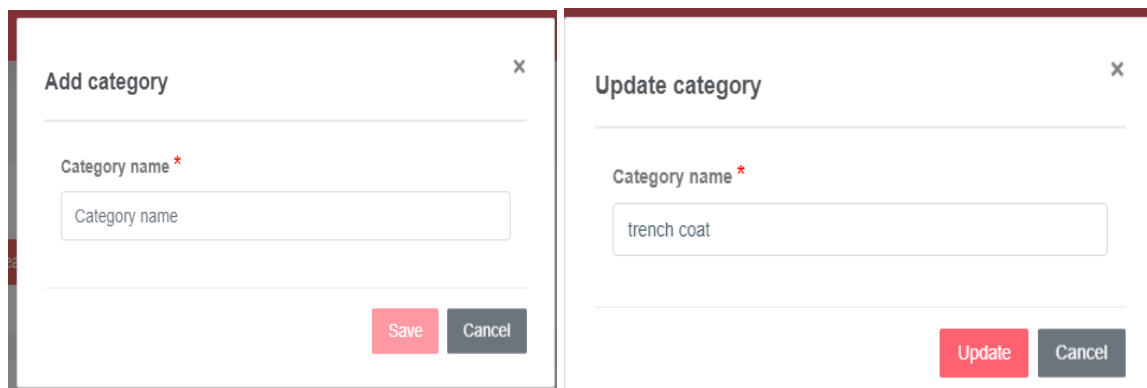
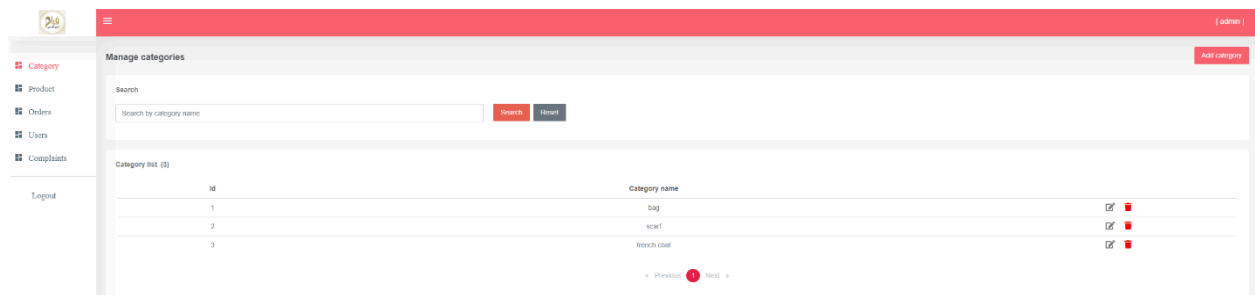


Figure 42 Adding / Editing Categories Screen

The screenshot shows a 'Manage products' interface. At the top right, there is a user profile icon labeled 'Admin'. Below the header, there is a search bar with the placeholder text 'Product name' and buttons for 'Search' and 'Reset'. Below the search bar, there is a 'Product list (2)' section containing a table with the following data:

Image	Name	Category	Quantity	Price	Discount	
	red trench coat	trench coat	6	\$210.00	\$10.00	
	red scarf	scarf	2	\$50.00	\$0.00	

At the bottom of the table, there are navigation buttons: '+ Previous', '1', and 'Next +'.

Add product



Product name *

Category *

Price *

Quantity *

Discount *

Description

Images

No Images upload

Upload Image(s)

Name	Size
Progress:	
Upload	
<input type="button" value="Choose Files"/>	No file chosen

Figure 43 Add Product Screen

Update product

×

Product name *

Category *

Price *


Quantity *

Discount *

Description

red scarf

Images



Upload Image(s)

Name	Size
Progress: <div style="border: 1px solid #ccc; height: 10px; width: 100%;"></div>	
<input type="button" value="📤 Upload"/> <input style="margin-left: 10px;" type="button" value="🗑️"/>	
<input type="button" value="Choose Files"/> No file chosen	

Figure 44 Update Product Screen

Manage orders

Search

Date from Date to Search Report

Order list (3)


Order id	User name	Order date	Total amount
1	osaid	27/04/2024	\$50.00
2	noor	02/05/2024	\$50.00
3	samir	02/05/2024	\$200.00

< Previous 1 Next >

Order item(1) X

Order Id : 3 Order date : 02/05/2024

User name : samir Total amount : \$200.00

Product image	Product name	Price	Quantity	Discount	Total
	red trench coat	210	1	\$10.00	\$200.00

Close X

Figure 45 View Orders Screen

Manage users

Search

Display name Search Report

User list (3)

Display name	Email	Phone number	Created date	Status
osaid	osaidtarah@hotmail.com	0999789783	27/04/2024	Active
samir	samir@hotmail.com	0999789783	02/05/2024	Active
noor	noor@hotmail.com	0999789783	27/04/2024	Active

< Previous 1 Next >

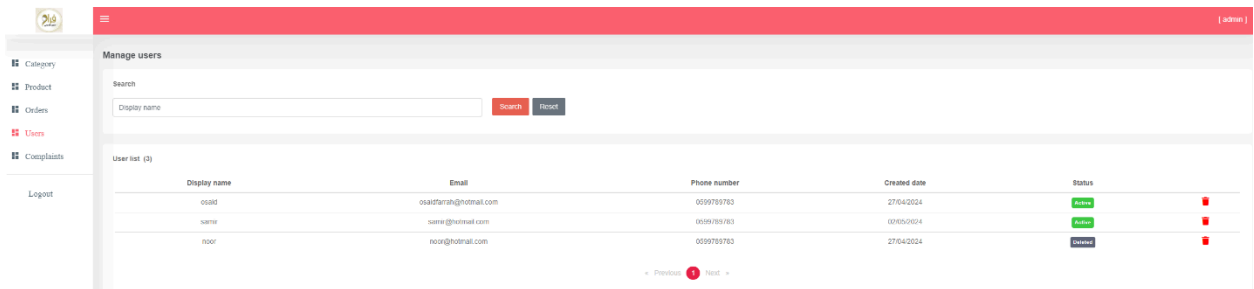
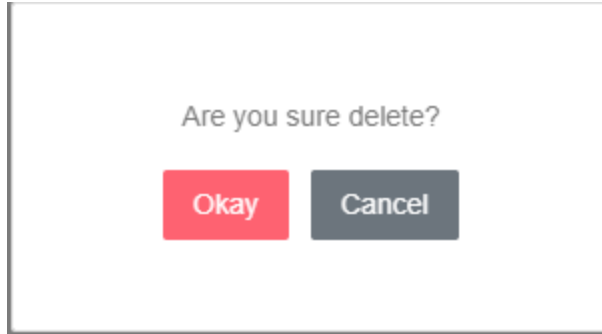


Figure 46 View/ Delete Users Screen

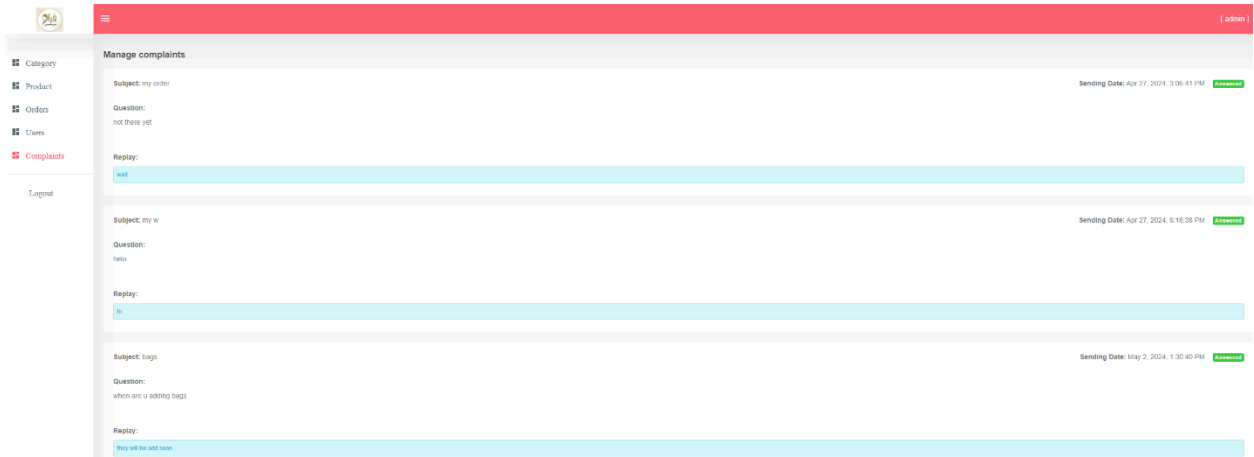


Figure 47 Reply/View Complaints Screen.

Table 26 Login Admin Test

Test Case	Scenario	Test Data	Expected Result	Actual Result	Status
Normal Log in	The admin fills the required fields with the correct data.	User Email Address: Admin@gmail.com Password: Admin@123	Successful Login	Successful Login	Pass
Invalid Log in	The admin enters the wrong password and email	User Email Address: @gmail.com Password: admin	Failed Log in	Failed Login	Pass
Invalid Log in	The admin leaves the required field empty.	--	Failed Login with error message	Failed login message	Pass

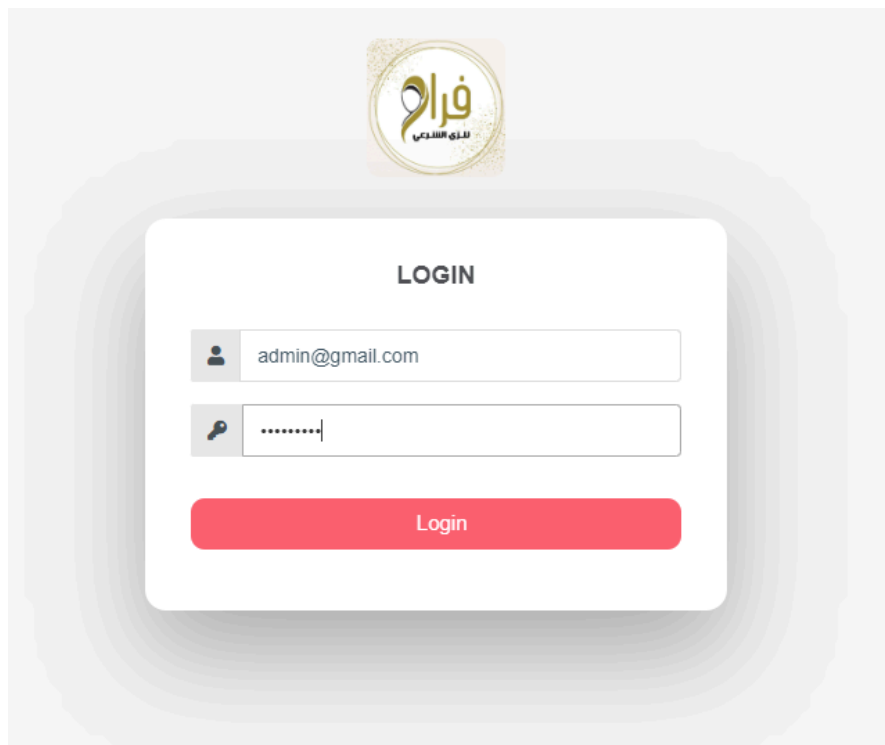


Figure 48 Normal Log-in Screen

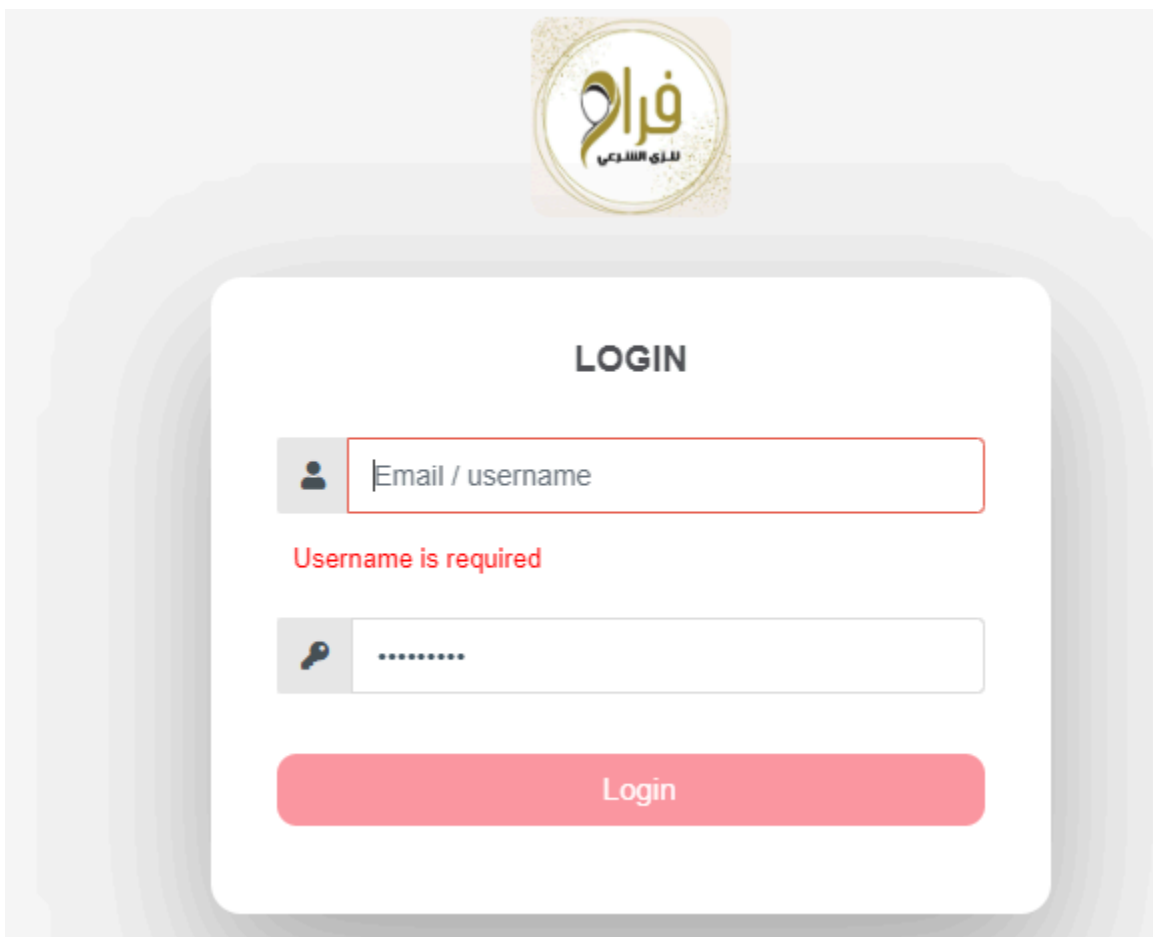
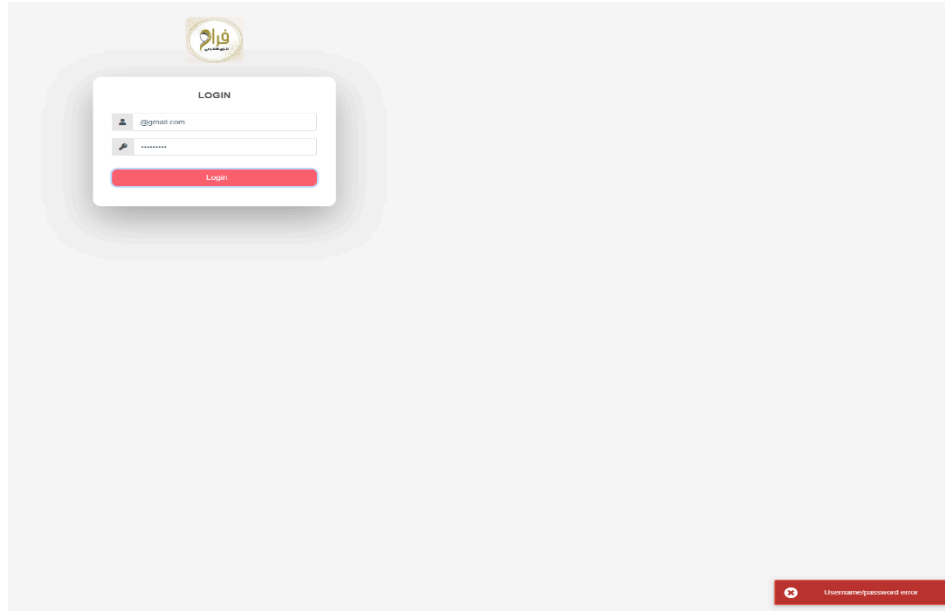


Figure 49 Invalid Log-in Screen

5.4 Conclusion:

In conclusion, this chapter has provided a comprehensive overview of system testing processes. By supplementing explanations, descriptions, and status updates with images demonstrating successful operations, hopefully, readers would have gained valuable insights into the testing procedures.

Future Work

For the future of the Farrah Store platform, we are dedicated to enhancing the user experience through key points that are essential for delivering an unparalleled shopping experience. By adding more features that will make the website easier to use for both employees and customers, like enhancing and transforming the contact system into a messaging system that will ease communication between the customer and the employee; we also plan to integrate customer comment reviews to assist our customers with their purchase decisions. We will be adding a delivery methods feature that allows the user to choose how to receive the order without having to contact the employee directly. Moreover, we are planning to deploy the website once we establish a bank agreement that will enable users to use actual credit card information on the website. Additionally, we intend to fix any bugs and issues that occur after the release of the website, ensuring a seamless, smooth experience for both the customer and the employee.

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