

UNIVERSITY KUALA LUMPUR

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SHOP WATCHES ECOMMERCE

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REPORT SUBMITTED TO FULFIL THE PARTIAL
REQUIREMENTS FOR THE DIPLOMA OF INFORMATION
TECHNOLOGY
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ABSTRACT

E- commerce allows businesses to reach millions of potential consumers and suppliers on online. It decreases the need for personnel and creates flexibility and convenience for the organization to develop relationships with potential buyers and sellers. It provides the consumer with a more personalized experience, eliminating the need for physical presence and with the aid of home delivery-commerce has been a part of the shopping experience globally

ABSTRAK

E-Dagang membolehkan perniagaan menjangkau lebih ramai bakal pengguna dan pembekal dalam talian. Ia mengurangkan keperluan untuk pekerja dan mewujudkan fleksibiliti dan kemudahan bagi organisasi untuk membangunkan hubungan dengan bakal pembeli dan penjual. Ia memberikan pengguna pengalaman yang lebih peribadi, mengurangkan keperluan untuk kehadiran fizikal dan dengan bantuan penghantaran ke destinasi yang telah menjadi sebahagian daripada pengalaman baru dalam aktiviti membeli-belah di seluruh dunia.

CHAPTER 1: INTRODUCTION

1.1 Background of study

Shop watches ecommerce refers to the online buying and selling of watches through an electronic platform, typically a website or mobile application. This type of ecommerce allows customers to browse and purchase a wide range of watches from the comfort of their own homes, without having to physically visit a brick-and-mortar store (Jain, 2021). Shop watches ecommerce sites often feature a variety of watch brands, styles, and prices, and may also offer additional features such as product reviews, customer support, and secure payment options. In the ever-evolving realm of online retail, "The 5 O'Clock" emerges as a beacon of sophistication and style in the world of watch ecommerce. As the name suggests, our project is not just about telling time; it encapsulates a moment of refinement and elegance, inviting customers into a curated space where each timepiece transcends mere functionality. This report provides a comprehensive exploration of "The 5 O'Clock" project, delving into the intricacies of consumer behavior, preferences, and challenges within the shop watches ecommerce landscape.

1.2 Problem statement

The existing physical watches store faces limitations in operating hours, location dependence, inventory selection, operating costs, and transaction processes. An online watches ecommerce solution is needed to overcome these inefficiencies and provide customers with 24/7 accessibility, global reach, extensive inventory, reduced costs, and seamless transactions. The goal is to enhance customer satisfaction by offering convenience, variety, and a user-friendly shopping experience.

1.2 Objectives

- To develop a user-friendly ecommerce platform where users can browse and purchase watches, filter categories, as well as view a helpful information of the products.
- Help a shop watches business reach a wider audience and attract new customers who might not have otherwise been able to access their products.
- A cart feature to allow users to store variety watches into a temporary cart, remove or add the quantity for each product, reset cart which remove all products in cart.
- Shop watches business can streamline their operations and reduce the need for physical inventory storage and management, as well as reduce costs associated with retail spaces.

1.3 Scope of study

The scope of study for a shop watches ecommerce project would include market analysis, competitor research, user experience design, product categorization, payment gateway integration, inventory management, and a secure online platform. Additionally, consider features like customer reviews, order tracking, and responsive customer support for a comprehensive study.

CHAPTER 2: LITERATURE REVIEW

2. Introduction

2.1. Purpose of the Literature Review

As the e-commerce landscape continues to evolve, this literature review delves into the multifaceted realm of online platforms specifically dedicated to the retail of watches. The study explores recent trends in global e-commerce, focusing on technological advancements and innovations that impact the watch retail sector. Consumer behavior in the context of purchasing watches online is examined, emphasizing factors such as brand perception, trust, and the influence of user-generated content.

2.2. Importance of Reviewing Existing Literature

Literature reviews provide insights into the current state of the watches e-commerce market. Understanding market trends, consumer behavior, and competitive landscapes helps in shaping effective strategies for the project. It also helps in identifying challenges and obstacles faced by e-commerce platforms specializing in watches. This knowledge is vital for anticipating potential issues and developing solutions to overcome them.

2.3. Objectives

The objectives of the literature review are as follows:

- 1. Gain a comprehensive understanding of the current state of e-commerce, specifically focusing on the sale of watches.*

2. *Investigate existing studies on consumer behavior in the context of purchasing watches online.*
3. *Review literature to identify and analyze the features and functionalities commonly implemented in successful e-commerce platforms for watches.*

2.4. Introduction to the shop watches ecommerce

- *History of shop watches ecommerce*

The concept of e-commerce started gaining prominence in the mid to late 1990s. In these early days, businesses began exploring the potential of selling products online, including watches (Lee, Y.E., & Benbasat, 2004). However, the internet was not as widely adopted, and transactions were often limited by technological constraints. Some pioneering online retailers emerged in the late 1990s, offering watches for sale on their e-commerce platforms. These early ventures faced challenges related to consumer trust, limited payment options, and the nascent state of online security. The early 2000s saw a significant expansion of e-commerce platforms, with an increasing number of businesses, including watch retailers, establishing an online presence. E-commerce websites became more sophisticated, offering improved user experiences and secure payment options. The history of shop watches e-commerce reflects a continual adaptation to technological advancements, changing consumer preferences, and the dynamic landscape of online retail. As we move forward, it is likely that e-commerce for watches will continue to evolve with emerging technologies and consumer expectations.

2.5. Essential shop watches ecommerce Features

- *To create a successful shop watches e-commerce platform, consider incorporating the following essential features: Ensure an intuitive and easy-to-navigate interface that allows customers to browse watches experience. Create detailed product pages for each watch, including high-quality images, specifications, pricing, and customer reviews. Provide sufficient information to help customers make informed purchase decisions. Implement robust search functionality and filtering options. Allow users to search for watches based on brand, style, price range, and other relevant criteria.*

2.6. Current issue in using shop watches ecommerce

- *Common issues in using a watches ecommerce platform may include slow website performance, navigation difficulties, payment processing issues, or inadequate product information. Regularly assess and address these concerns to enhance the user experience and improve customer satisfaction.*

CHAPTER 3: METHODOLOGY

3.1 Introduction

Embracing the Agile methodology for our shop watches ecommerce project means we're prioritizing flexibility, collaboration, and delivering value in incremental cycles. In this dynamic approach, we break down the project into manageable sprints, each focused on delivering tangible features. Regular feedback loops, transparent communication, and a commitment to responding to change define our journey. With Agile, we're not just building an ecommerce platform; we're creating an adaptive, customer-centric experience. Let's embark on this iterative process, ensuring that each step aligns with our goals and keeps us in sync with market demands. Get ready for a responsive, efficient, and customer-driven development adventure!

3.2 Requirement analysis phase

During the requirement analysis phase for a watches e-commerce platform, various aspects need careful consideration to ensure the successful development and implementation of the system:

- **Planning:**

In the planning phase of the Agile methodology for the Shop Watches project, the focus is on initiating a collaborative process with stakeholders. This involves defining the scope, objectives, and expected outcomes of the requirement analysis. Clear communication is essential to ensure alignment among team members and stakeholders regarding project goals.

- **Analysis:**

This phase prioritizes the creation of user stories that comprehensively outline both functional and non-functional requirements. The goal is to establish a solid foundation for the subsequent development phases.

- **Design:**

During this phase, our team collaboratively structures dynamic documentation. Additionally, a communication plan is established to facilitate continuous interaction among us. This ensures that the evolving design aligns with the overarching project goals and that any adjustments can be made in real-time.

- **Implementation:**

In this phase, it involves translating the refined requirements into tangible solutions. Ongoing communication is crucial during this phase to address any questions or uncertainties promptly. This iterative process allows for flexibility and adaptability, promoting a responsive development approach.

- **Testing:**

Aligned with Agile principles, the testing phase is integrated early and continuously throughout the development process. Test cases are derived from user stories, ensuring that the product meets the specified requirements. Feedback loops are an integral part of the testing process, allowing for quick adjustments and refinements based on test results and evolving project needs.

- **Maintenance:**

The maintenance phase focuses on post-implementation support and continuous improvement. Mechanisms are established to address any issues identified during or after deployment. Continuous improvement is key to ensuring the long-term success and sustainability of our Shop Watches project.

3.2.1 System requirements

Non-functional requirement

1. Should be able to handle a large number of users and maintain fast response times, even during peak traffic periods.
2. Should incorporate robust security measures to protect user data, including personal information and payment details.
3. Should have a user-friendly interface, with clear navigation, well-organized product listings, and an aesthetically pleasing design.

Functional requirement

1. Allow users to register for an account and authenticate their identity to access personalized data.
2. Enable users to add watches to a shopping cart, review/edit their selections, and proceed to a secure checkout process.
3. Preview wide range of watches along with relevant information such as images, descriptions, price, and availability.

3.3.2 Interface Design

Embrace a minimalist design with clean lines and uncluttered layouts, placing the spotlight on the watches and simplifying the user journey. Implement dynamic product showcases with interactive elements, allowing users to virtually explore the watches from different angles.

Store Page

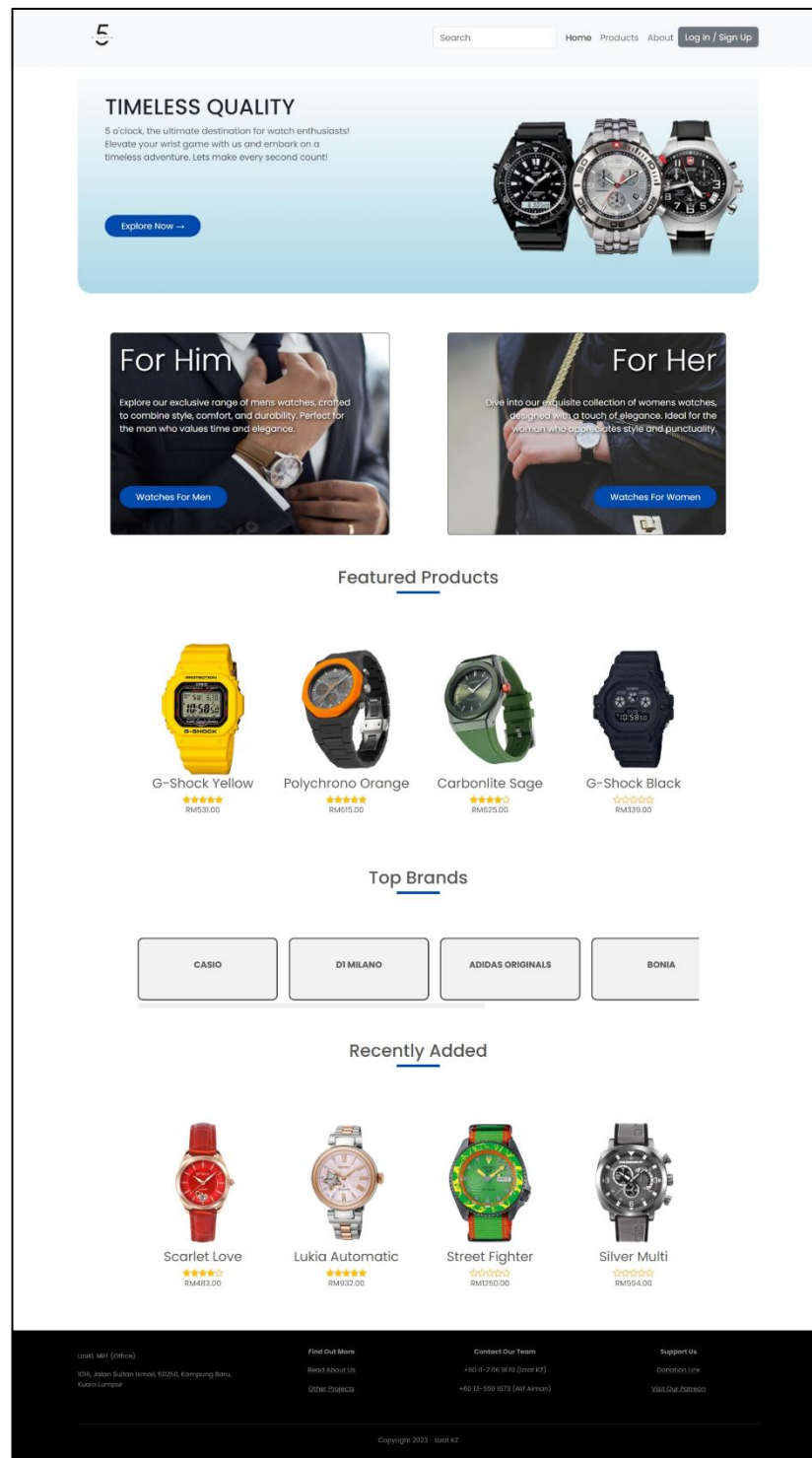




















Figure 1: Home Page



[Home](#)
[Products](#)
[About](#)
[Log In / Sign Up](#)

All Products

Default Sorting


 <p>G-Shock Yellow</p> <p>★★★★★</p> <p>RM531.00</p>	 <p>G-Shock Black</p> <p>★★★★★</p> <p>RM339.00</p>	 <p>Polychrono Orange</p> <p>★★★★★</p> <p>RM615.00</p>	 <p>Carbonlite Sage</p> <p>★★★★★</p> <p>RM625.00</p>
 <p>Polycarbon Pink</p> <p>★★★★★</p> <p>RM510.00</p>	 <p>City Tech One</p> <p>★★★★★</p> <p>RM500.00</p>	 <p>Digital One GMT</p> <p>★★★★★</p> <p>RM360.00</p>	 <p>Digital Two</p> <p>★★★★★</p> <p>RM453.00</p>
 <p>Snow Flakes</p> <p>★★★★★</p> <p>RM438.00</p>	 <p>Rose Cristallo</p> <p>★★★★★</p> <p>RM470.00</p>	 <p>Scarlet Love</p> <p>★★★★★</p> <p>RM483.00</p>	 <p>Street Fighter</p> <p>★★★★★</p> <p>RM1250.00</p>
 <p>Lukia Automatic</p> <p>★★★★★</p> <p>RM932.00</p>	 <p>Earth Multi</p> <p>★★★★★</p> <p>RM468.00</p>	 <p>Lux Automatic</p> <p>★★★★★</p> <p>RM890.00</p>	 <p>Silver Multi</p> <p>★★★★★</p> <p>RM594.00</p>

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Figure 2: Products Catalogue

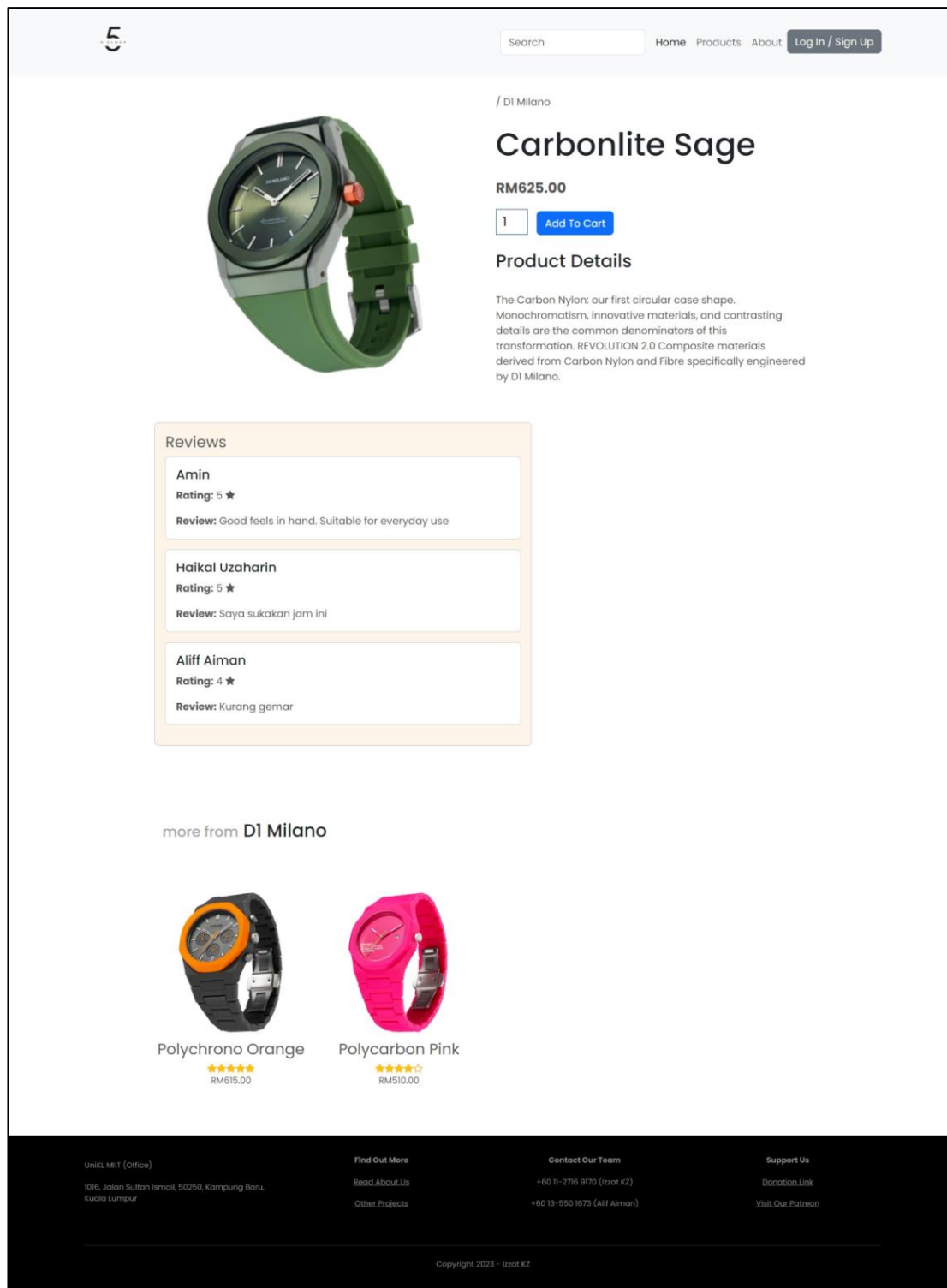


Figure 3: Product Details Page

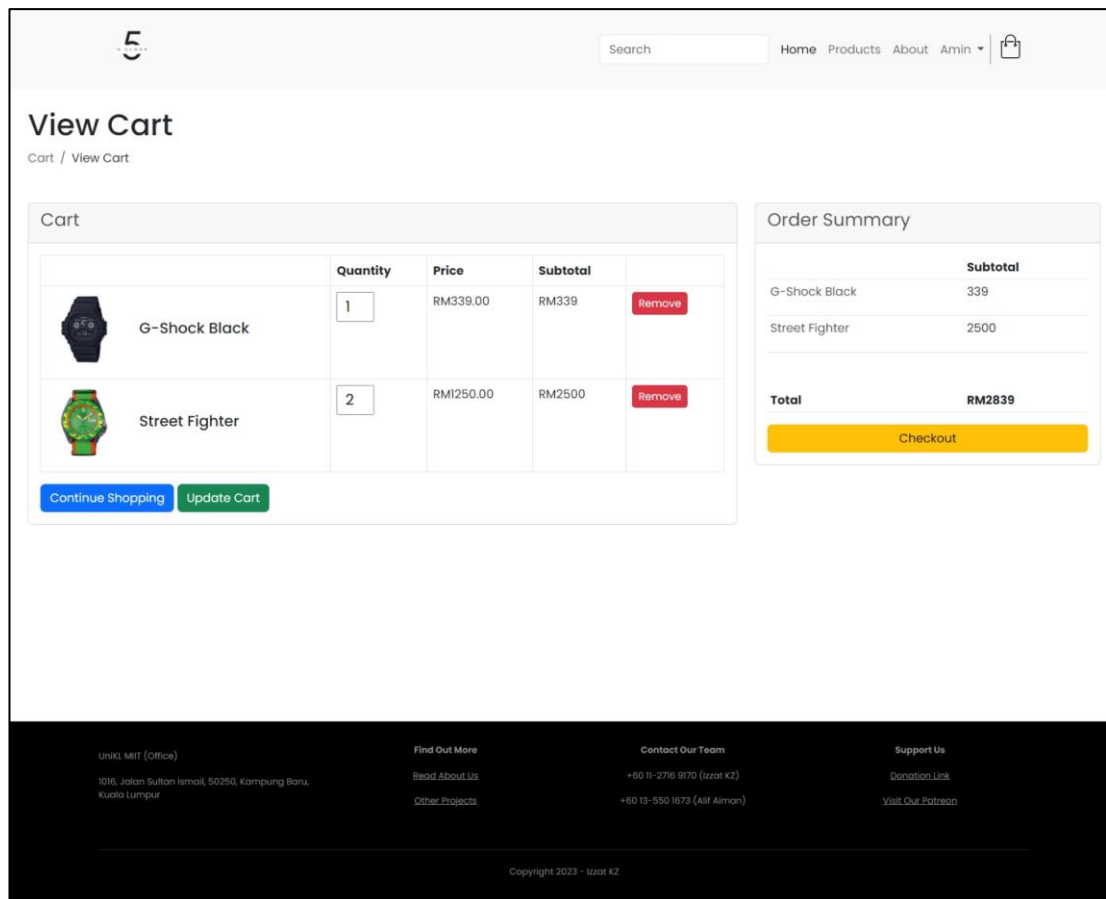


Figure 4: Cart Page

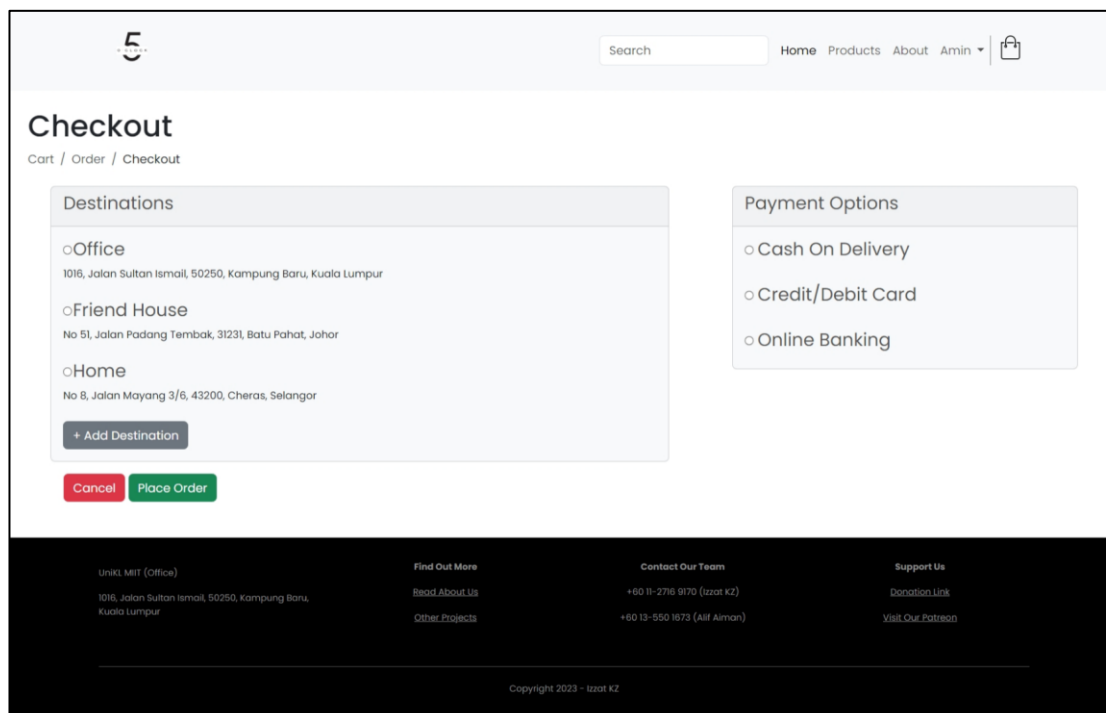


Figure 5: Checkout Page

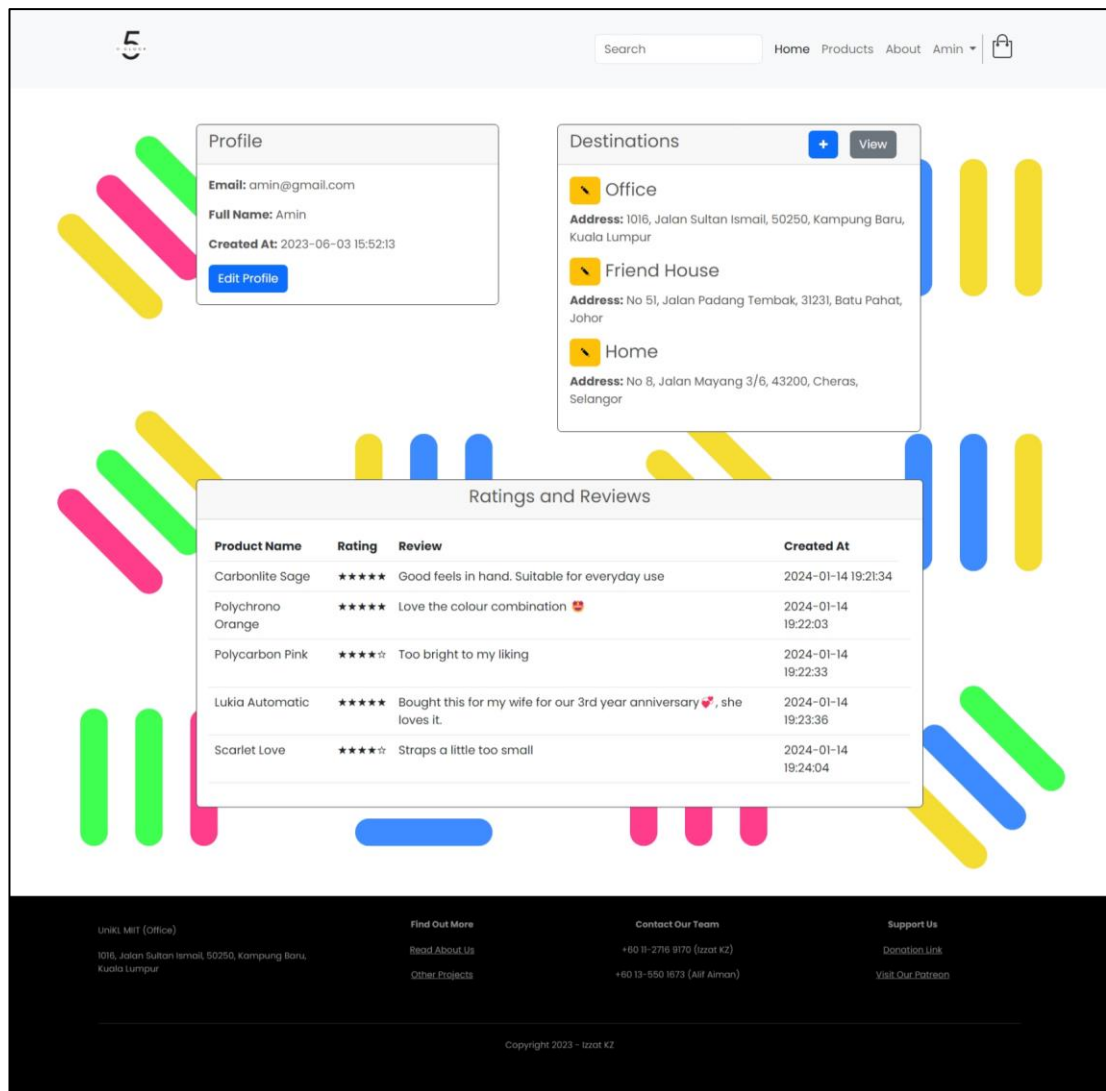




Figure 6: Profile Page



[Home](#)
[Products](#)
[About](#)
[Amin](#)


Past Order

Past Order

Past Orders





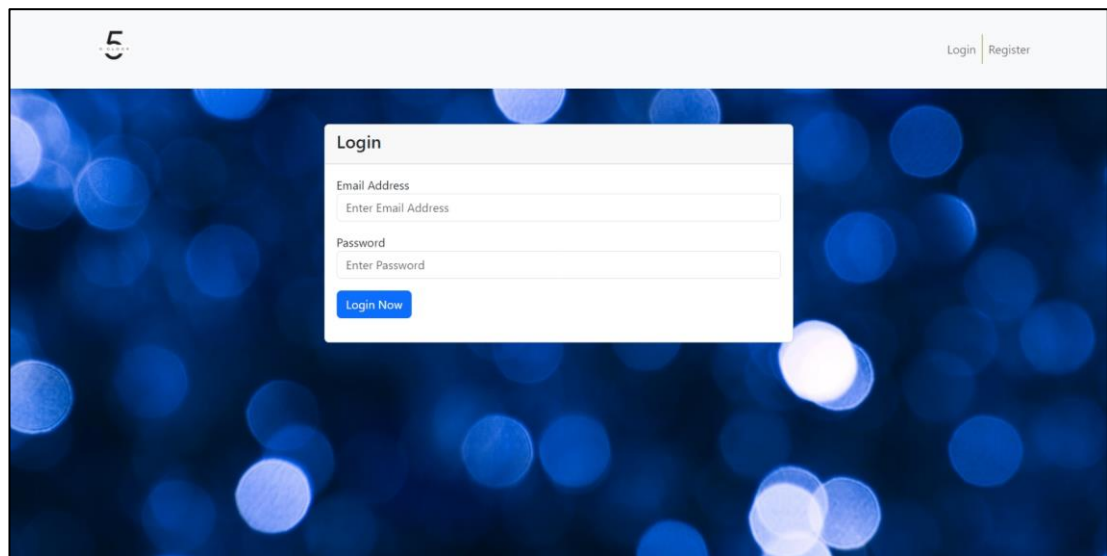
	Product Name	Quantity	Grand Total	Status	
	G-Shock Black	1	339.00	Payment Completed	View
	Digital One GMT	1	360.00	Payment Completed	View
	Carbonlite Sage	1	625.00	Payment Completed	View
	Street Fighter	2	2500.00	Payment Completed	View

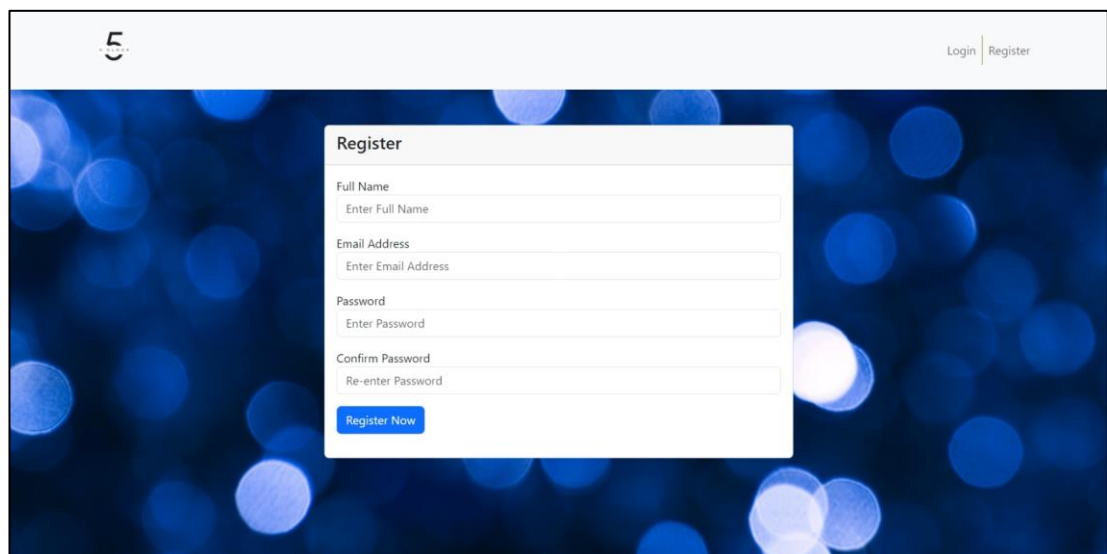
Figure 7: Past Order Page

Index (Login/Register)



The screenshot shows a web page with a light gray header. On the left is a logo with a large '5' and the word 'FACULTY' below it. On the right are links for 'Login' and 'Register'. The main background is a dark blue bokeh pattern. A white login form is centered, titled 'Login'. It contains two input fields: 'Email Address' with placeholder text 'Enter Email Address' and 'Password' with placeholder text 'Enter Password'. Below these is a blue button labeled 'Login Now'.

Figure 8: Login Page



The screenshot shows a web page with a light gray header. On the left is a logo with a large '5' and the word 'FACULTY' below it. On the right are links for 'Login' and 'Register'. The main background is a dark blue bokeh pattern. A white register form is centered, titled 'Register'. It contains four input fields: 'Full Name' with placeholder text 'Enter Full Name', 'Email Address' with placeholder text 'Enter Email Address', 'Password' with placeholder text 'Enter Password', and 'Confirm Password' with placeholder text 'Re-enter Password'. Below these is a blue button labeled 'Register Now'.

Figure 9: Register Page

Admin Panel

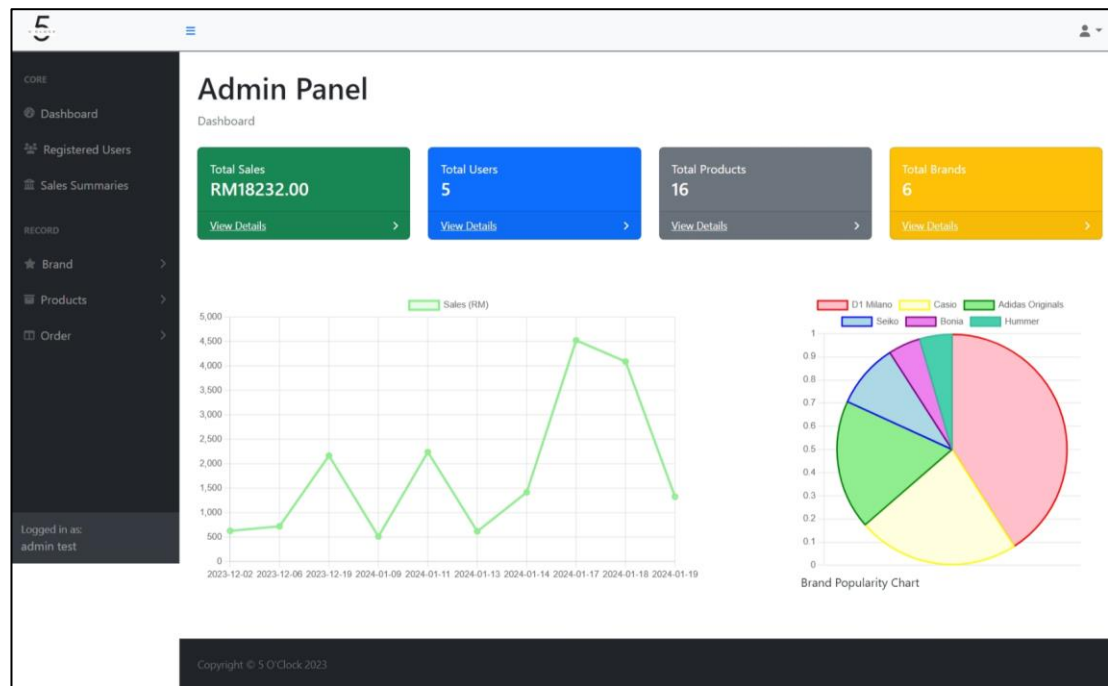


Figure 10: Admin Panel

This figure provides an insight into the powerful and user-friendly admin panel, featuring an organized dashboard that allows administrators to efficiently manage inventory, track sales, and analyze key performance metrics at a glance.

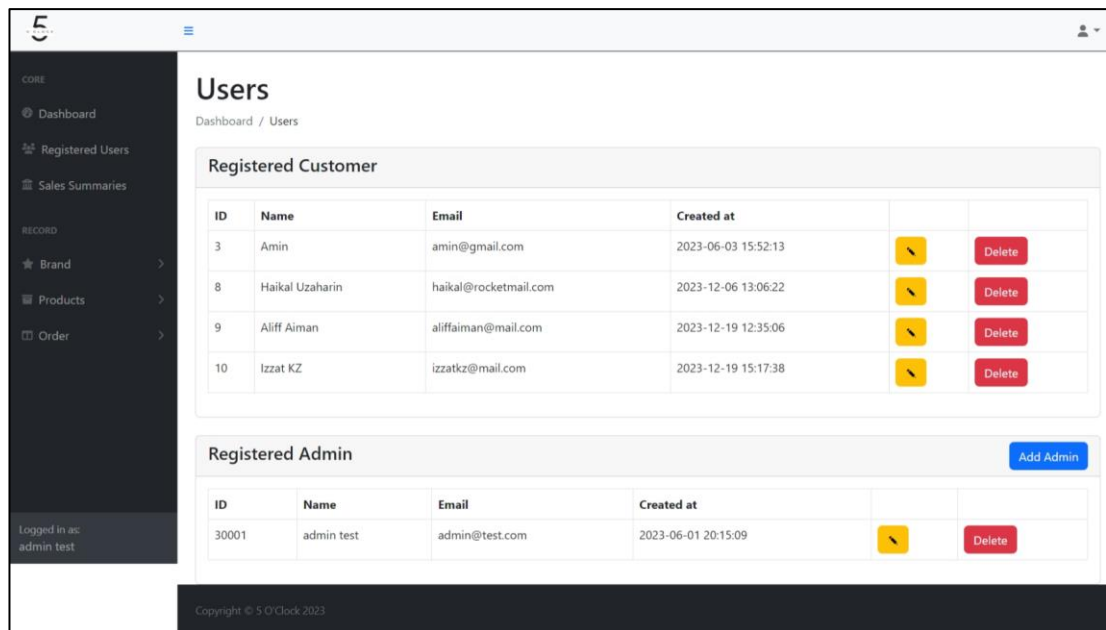


Figure 11: Registered Users Page

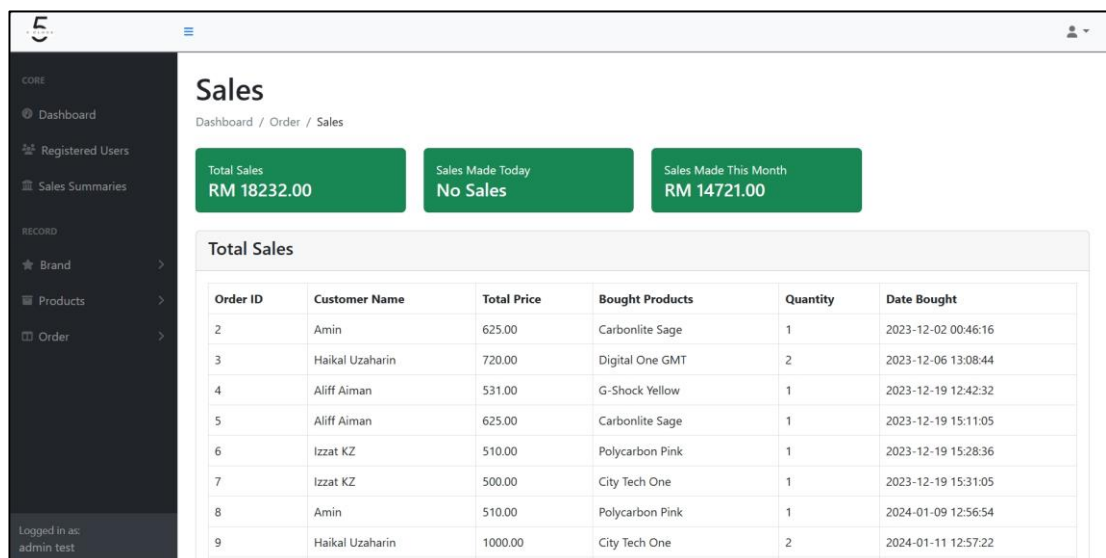


Figure 12: Sales Summary Page

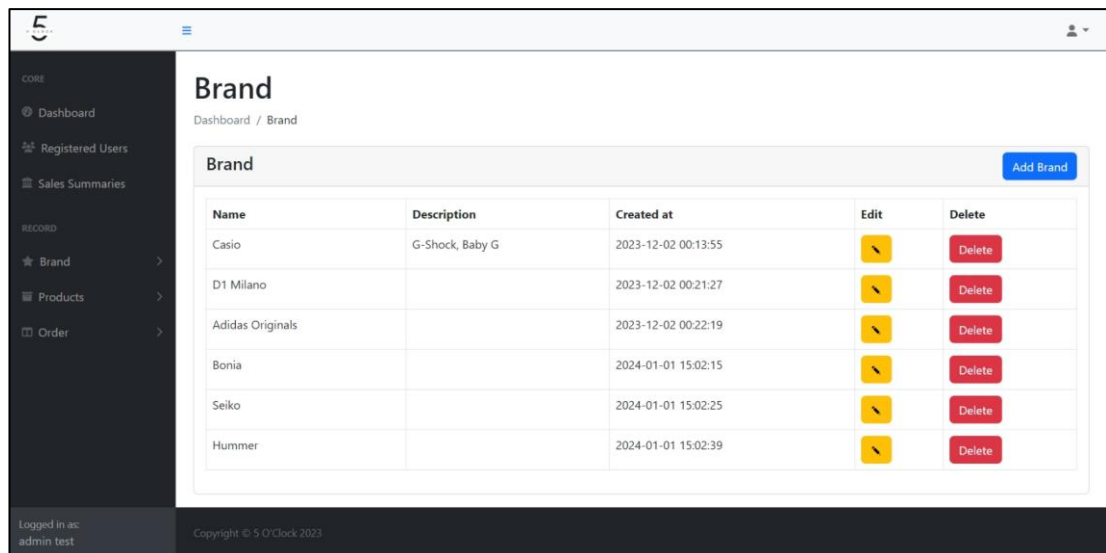


Figure 13: Brand Section

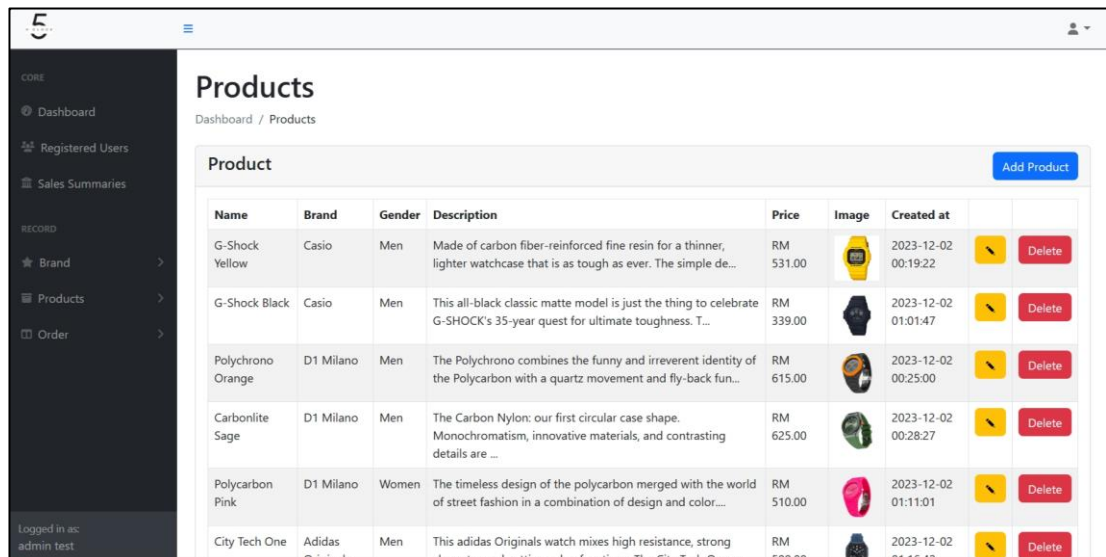


Figure 14: Product Section

5

5088

Dashboard

Registered Users

Sales Summaries

RECORDS

Brand

Products

Order

Logged in as: admin test

View Orders

Dashboard / Order / View Orders

Orders

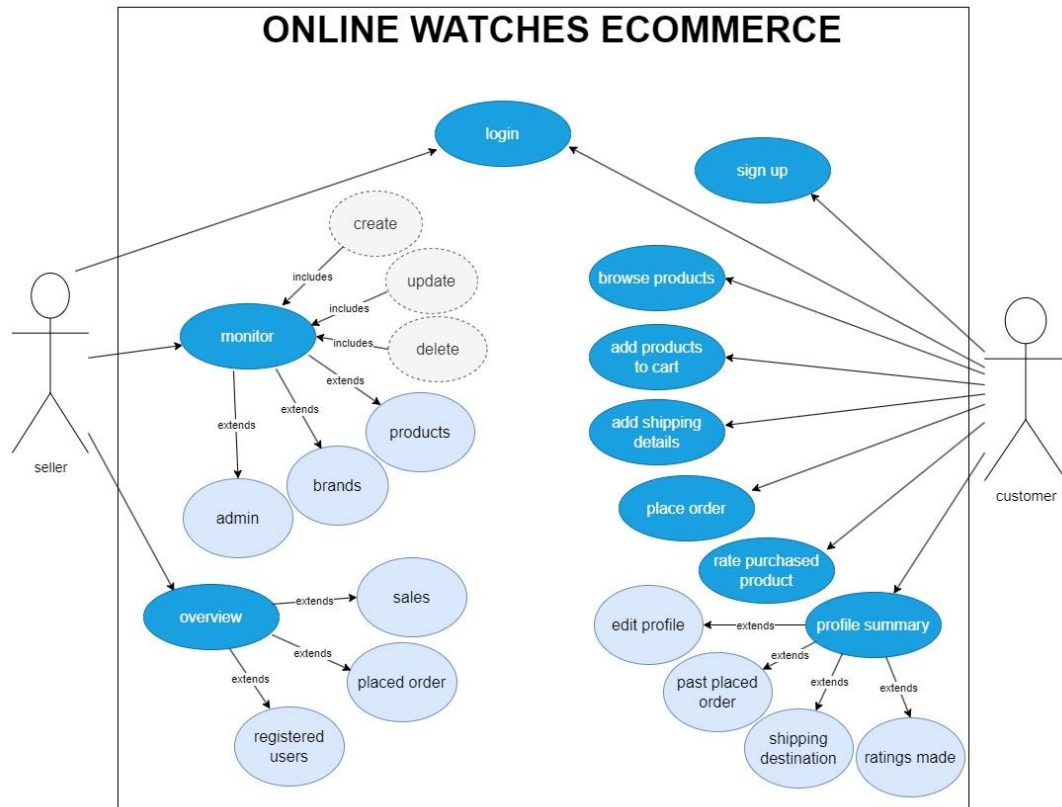
	Order ID	Customer ID	Grand Total	Quantity	Date Bought	Status	Tracking Number
View	2	3	625.00	1	00:46 at 02 December 23	Picked Up By Courier Update	Enter tracking number Enter
View	3	8	720.00	2	13:08 at 06 December 23	Preparing To Ship Update	wdawd2123123 Enter
View	4	9	531.00	1	12:42 at 19 December 23	Delivered Update	awdaw12312 Enter
View	5	9	625.00	1	15:11 at 19 December 23	Payment Completed Update	Enter tracking number Enter
View	6	10	510.00	1	15:28 at 19 December 23	Picked Up By Courier Update	Enter tracking number Enter
View	7	10	500.00	1	15:31 at 19 December 23	Payment Completed Update	Enter tracking number Enter
View	8	3	510.00	1	12:56 at 09 January 24	Payment Completed Update	Enter tracking number Enter
View	9	8	1000.00	2	12:57 at 11 January 24	Payment Completed Update	Enter tracking number Enter
View	10	8	615.00	1	22:05 at 11 January 24	Payment Completed Update	Enter tracking number Enter
View	11	8	625.00	1	23:21 at 11 January 24	Payment Completed Update	Enter tracking number Enter
View	12	3	615.00	1	16:35 at 13 January 24	Delivered Update	jnt9182312 Enter
View	13	3	932.00	1	19:10 at 14 January 24	Payment Completed Update	Enter tracking number Enter

Figure 15: Order Status page

3.4 Development Phase

Use Case

Diagram 1: Ecommerce Use Case



This figure illustrates the use case diagram for the watches ecommerce system, providing a visual representation of how different actors, including customers and seller, interact with the platform. The diagram showcases essential functionalities such as product browsing, order management, and user account activities, offering a comprehensive overview of the system's operations.

Comparison Table

a comparisons in features between an old management of physical store and the ecommerce site system

Table 1: Comparison Table

OLD MANAGEMENT	FEATURES	ECOMMERCE SYSTEM
Limited operating hours	Operating System	24/7 availability
Physical presence required	Location Dependence	Access from anywhere
Limited store space	Inventory Selection	Wide product range
Higher (rent, staff)	Operating Costs	Lower (hosting, freeware)
In-person payment	Transaction Process	Online payment gateway

Hardware Requirements

a minimum hardware requirements to run and to program the online watches ecommerce site

Table 2: Hardware Requirements

Components	Minimum Specification
Processor	Intel core i5 or AMD Ryzen 5
Operating System	Windows 7
Memory(RAM)	4GB
Storage Space	128GB
Other Features	Integrated graphics with screen resolution of 1280 x 800 pixels is recommended to view and work comfortably
Browser	<ul style="list-style-type: none">- Google Chrome- Vivaldi- Opera- Microsoft Edge

Software Requirements

a software requirements to program and manage the project of the ecommerce site

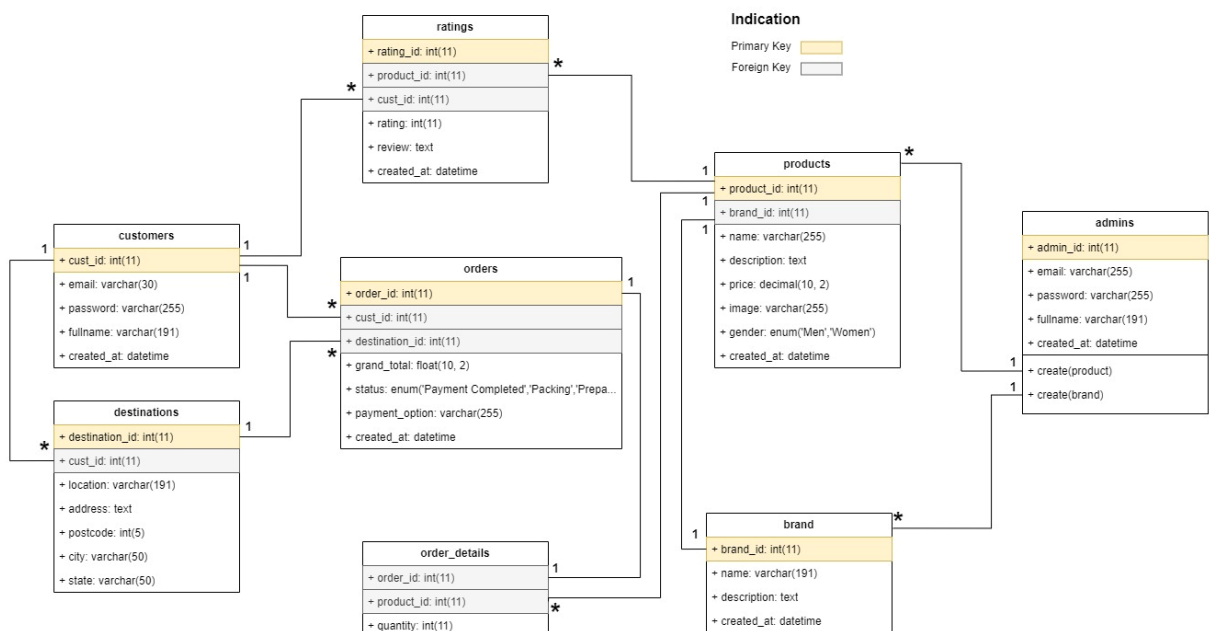
Table 3: Software Requirements

Components	Description
Development Tool	Visual Studio Code
Documentation Tool	Microsoft Office Word
Diagram Drawing Tools	Draw.io
Database	<ul style="list-style-type: none">• Xampp• Phpmyadmin
Programming Language	<ul style="list-style-type: none">• Php• Css• Html• JavaScript (front end)
Management Tools	<ul style="list-style-type: none">• Trello• Microsoft Office Timeline• Microsoft Office Excel

Class Diagram

This figure shows the class diagram for the watches ecommerce system, providing a visual representation of how the relationships are among data tables in the ecommerce database. The class diagram summarizes how much a field can hold, like one customer can have many orders, and one product can have one rating.

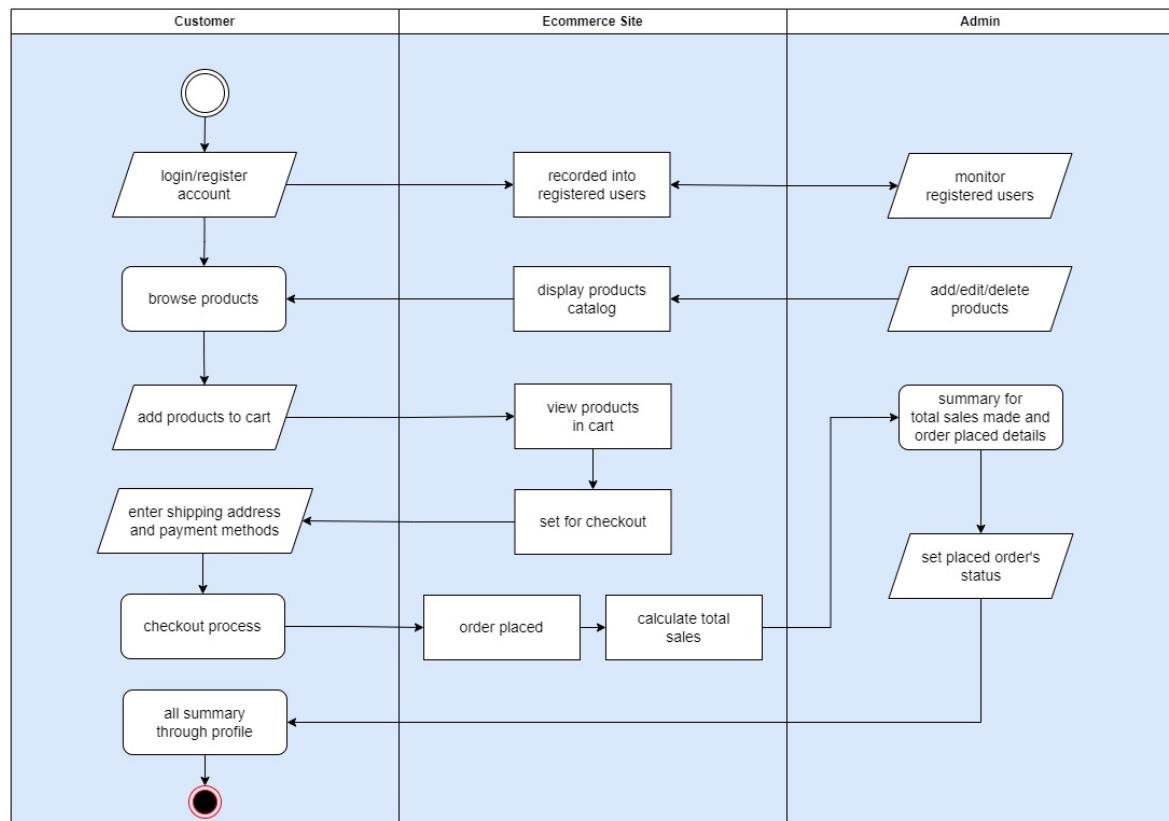
Diagram 2: Class Diagram



Swimlane

Shown below is the ecommerce flow from customer view, system view, and admin view

Diagram 3: Ecommerce Swimlane



Flowchart

These two diagrams shows the flowchart of the watches ecommerce process, offering a step-by-step depiction of the customer journey from product selection to checkout. It outlines key stages such as product browsing, adding items to the cart, payment processing, and order fulfillment. The flowchart illustrates the seamless progression through the ecommerce system, emphasizing efficiency and user-friendly navigation for a satisfying shopping experience.

Diagram 4: Login Flowchart

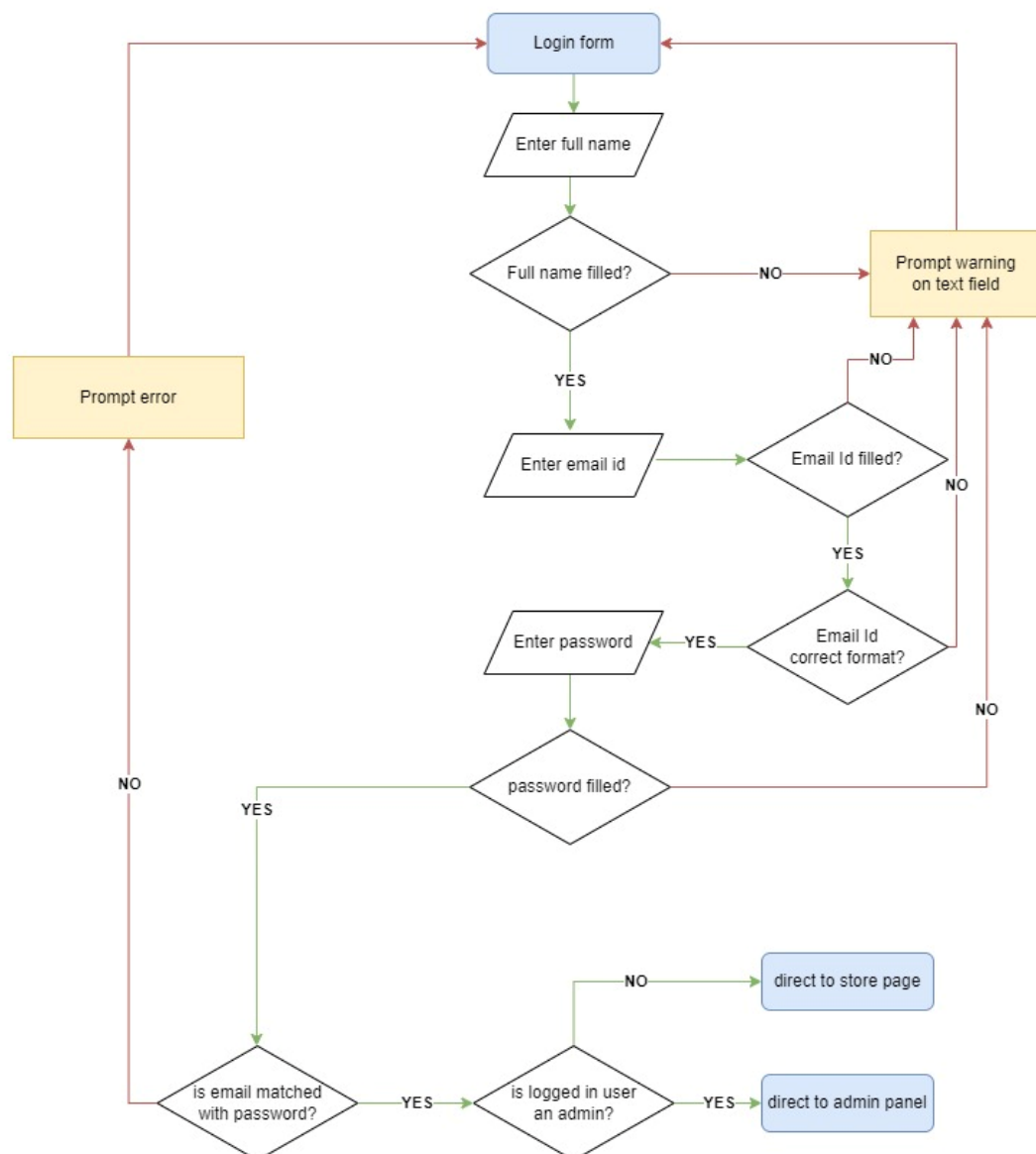


Diagram 5: Register Flowchart

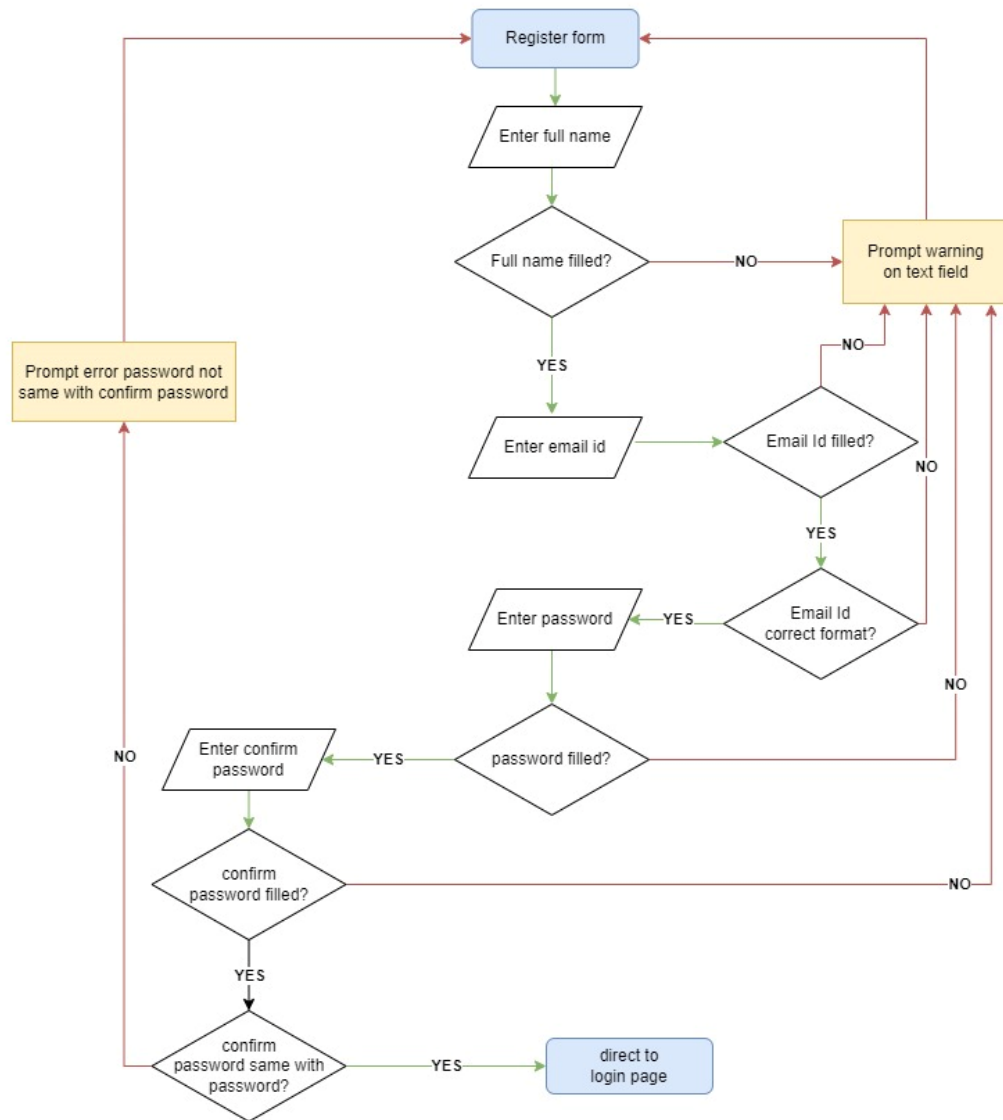
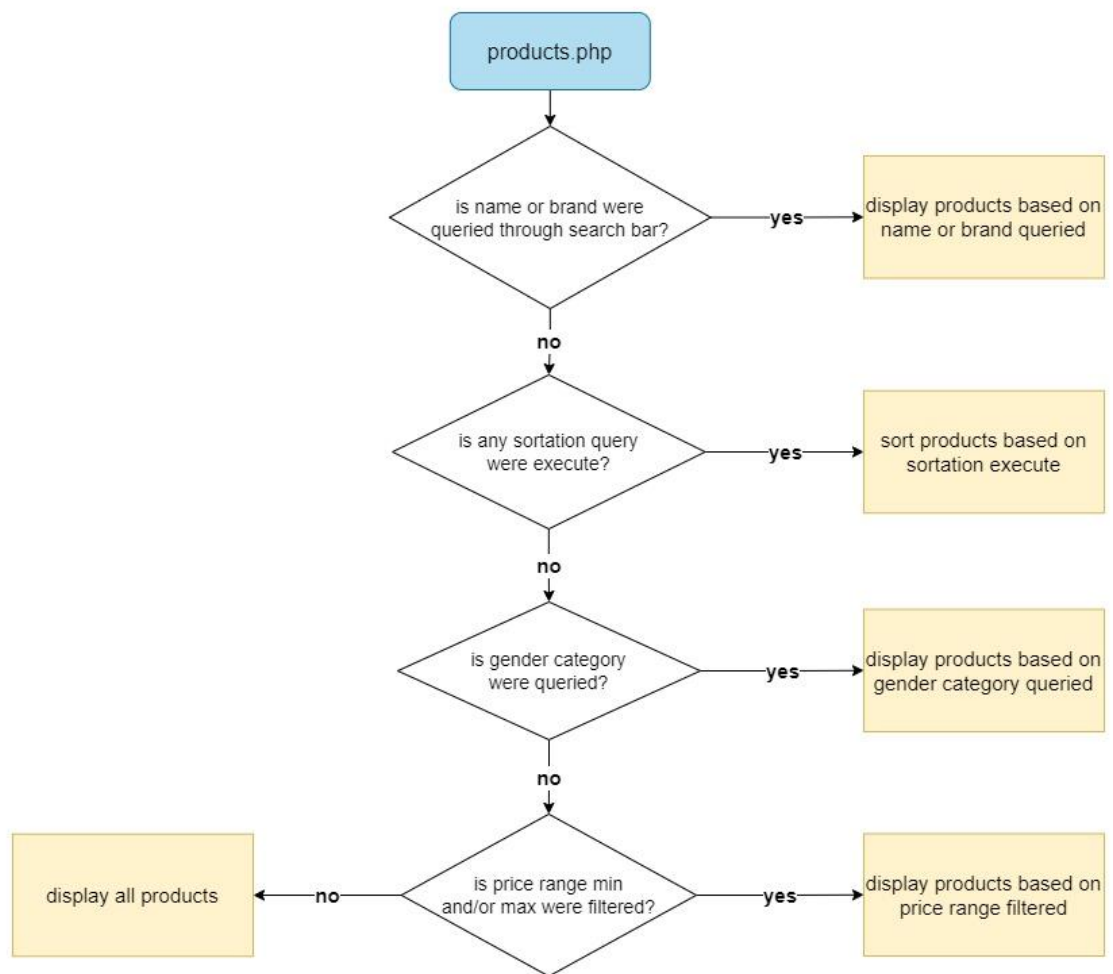


Diagram below is the product query flow, this process happened when customer searched for a desired product in the search bar. The query process also happened when customer sorted the products in the product catalogue, as in sorting numerically, alphabetically, price range, and based on gender.

Diagram 6: Query Flowchart



A flowchart below is the flow for cart system. Cart system occurs when customer want to add a desired product into a cart, adjust the product quantity, and remove the unwanted item. Customer can also add more product into cart.

Diagram 7: Cart Flowchart

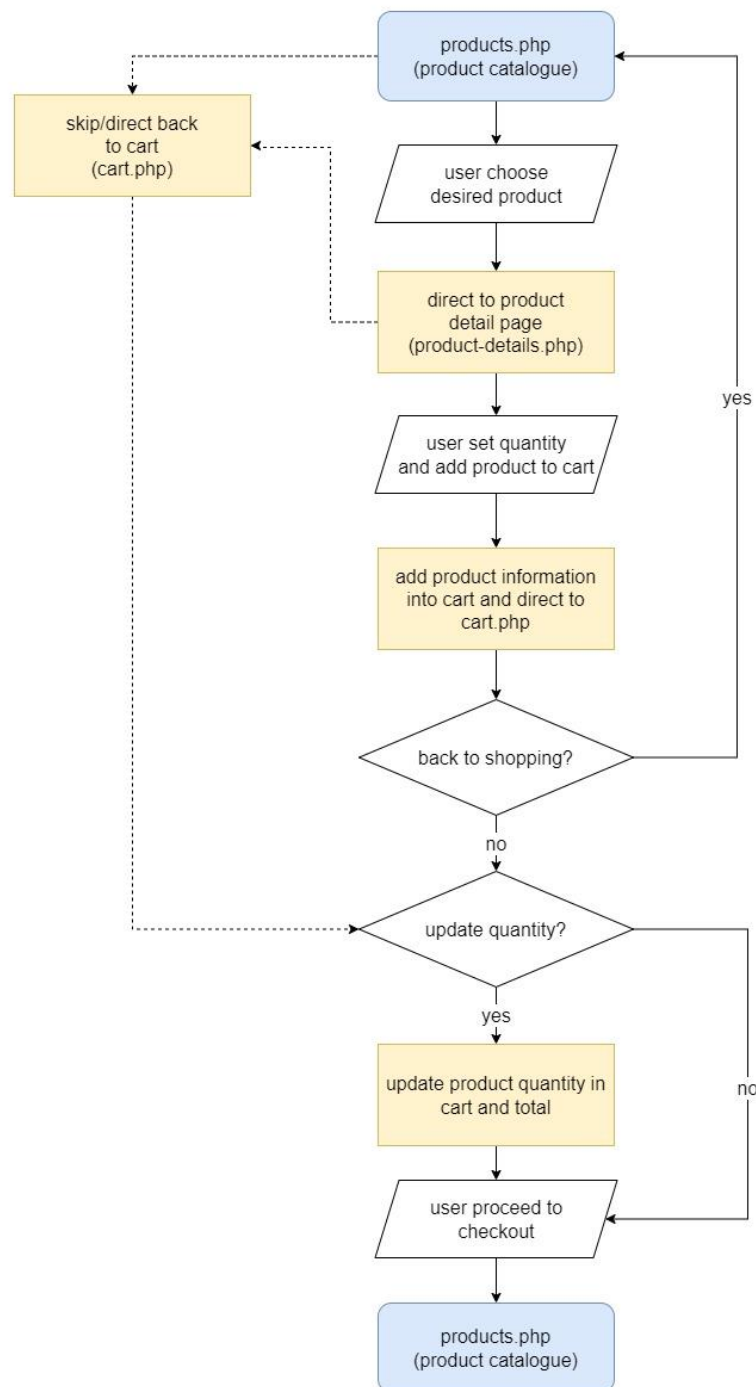
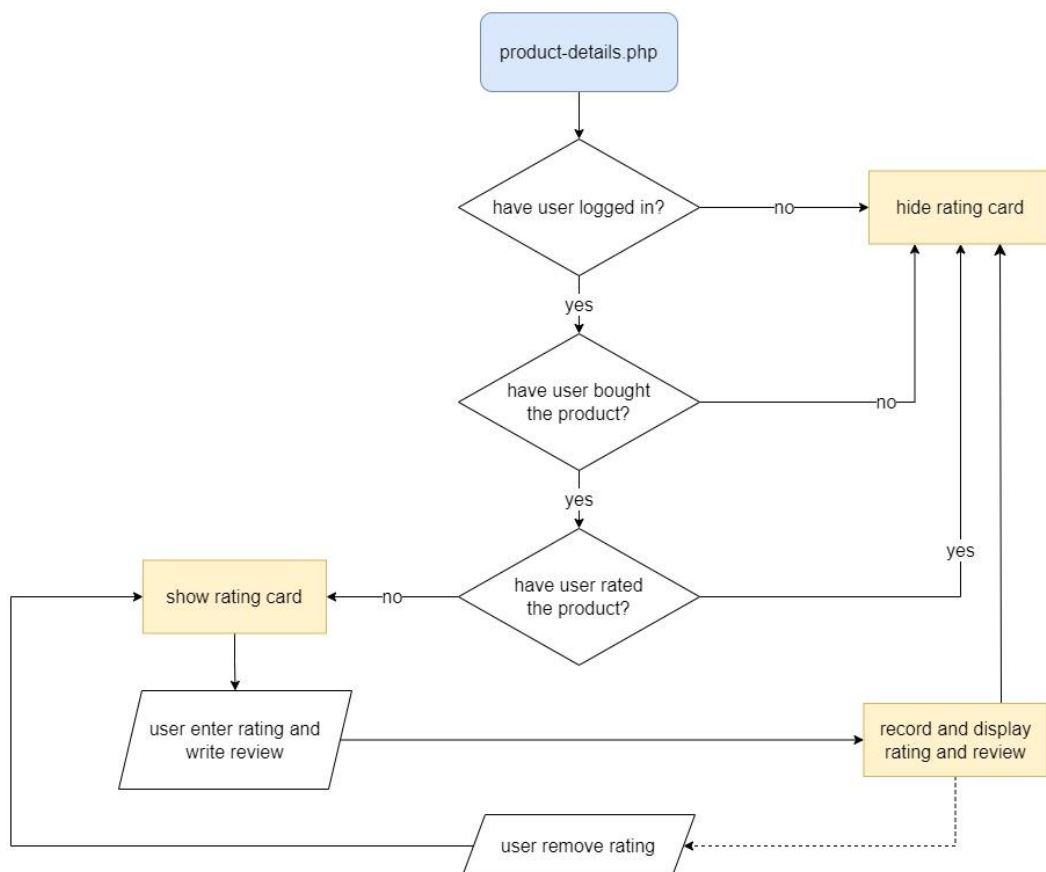


Diagram below is the product rating flow, occurs when customer want to leave a rating and review on their recently bought products. Customer may leave the rating if they bought the product and not rated or reviewed the product. In addition, if the user not logged in yet, user cannot leave a rating on the product.

Diagram 8: Ratings Flowchart



Coding Snippet

Dbcon.php

- A code snippet for a connection to database named "fyp"

```
dbcon.php x
config > dbcon.php > ...
1  <?php
2
3      $host = "localhost";
4      $username = "root";
5      $password = "";
6      $database = "fyp";
7
8      // Creating database connection
9      $con = mysqli_connect("$host", "$username", "$password", "$database");
10
11     // Check database connection
12     if(!$con)
13     {
14         die("Connection Failed: ".mysqli_connect_error());
15     }
16
17
18
19  ?>
```

Snippet 1: Connection To Database

Login.php

- For user or admin to log in to the ecommerce site

```
login.php > div.py-5

include('includes/header.php');
include('includes/navbar.php');
?>

<div class="py-5">
    <div class="container">
        <div class="row justify-content-center">
            <div class="col-md-6">

                <?php include('message.php'); ?>

                <div class="card">
                    <div class="card-header">
                        <h4>Login</h4>
                    </div>
                    <div class="card-body">

                        <form action="login-check.php" method="post">
                            <div class="form-group mb-3">...
                            </div>
                            <div class="form-group mb-3">...
                            </div>
                            <div class="form-group mb-3">...
                            </div>
                        </form>
                    </div>
                </div>
            </div>
        </div>
    </div>
    <?php include('includes/footer.php'); ?>
```

Snippet 2: Login Form

Register.php

- For a user to register as a new customer

```
index > register.php > div.py-3 > div.container > div.row.justify-content-center > div.col-md-6
9
10 include('includes/header.php');
11 include('includes/navbar.php');
12 ?>
13
14 <div class="py-5">
15     <div class="container">
16         <div class="row justify-content-center">
17             <div class="col-md-6">
18
19                 <?php include('message.php'); ?>
20
21                 <div class="card">
22                     <div class="card-header">
23                         <h4>Register</h4>
24                     </div>
25                     <div class="card-body">
26
27                         <form action="register-check.php" method="post" autocomplete="off">
28                             <div class="form-group mb-3">
29                                 <label for="">Full Name</label>
30                                 <input type="text" name="fullname" placeholder="Enter Full Name" class="form-control" required oninvalid="this.setCustomValidity('Please
31                             </div>
32                             <div class="form-group mb-3">
33                                 <label for="">Email Address</label>
34                                 <input type="email" name="email" placeholder="Enter Email Address" class="form-control" required oninvalid="this.setCustomValidity('Plea
35                             </div>
36                             <div class="form-group mb-3">
37                                 <label for="">Password</label>
38                                 <input type="password" name="password" placeholder="Enter Password" class="form-control" required oninvalid="this.setCustomValidity('Plea
39                             </div>
40                             <div class="form-group mb-3">
41                                 <label for="">Confirm Password</label>
42                                 <input type="password" name="cPassword" placeholder="Re-enter Password" class="form-control" required oninvalid="this.setCustomValidity('
43                             </div>
44                             <div class="form-group mb-3">
45                                 <button type="submit" name="register_btn" class="btn btn-primary">Register Now</button>
46                             </div>
47                         </form>

```

Snippet 3: Register Form

Authentication.php

- Located inside of admin file in order to check if the logged in user is an admin

```
auth authentication.php X
admin > auth authentication.php
1 <?php
2 session_start();
3 include('../config/dbcon.php');
4
5 // If user are not authenticated, redirect user to index.php
6 if(!isset($_SESSION['auth'])){
7     $_SESSION['message'] = "Login to Access Dashboard";
8     header("Location: ../index/login.php");
9     exit(0);
10 }
11 else
12 {
13     if($_SESSION['auth_user']['user_id'] <= '29999')
14     {
15         $_SESSION['message'] = "You are not Authorised Admin";
16         header("Location: ../customer/profile.php");
17         exit(0);
18     }
19 }
20
21 ?>

```

Snippet 4: Admin Authentication

Dashboard.php

- Dashboard is in admin panel, the code's snippet below shows a coding for one of the dashboard cards which is Sales Made card.

```
admin > dashboard.php > div.container-fluid.px-4 > div.row > div.col-xl-3.col-md-6 > div.card.bg-warning.text-white.mb-4 > div.card-foot
8      <ol class="breadcrumb mb-4">
9          <li class="breadcrumb-item active">Dashboard</li>
10     </ol>
11     <div class="row">
12         <?php include('message.php'); ?>
13         <div class="col-xl-3 col-md-6">
14             <div class="card bg-success text-white mb-4">
15                 <div class="card-body">Total Sales
16                     <?php
17                         $total_sales_query = "SELECT SUM(grand_total) AS total_sales
18                                             FROM orders";
19                         $total_sales_query_run = mysqli_query($con, $total_sales_query);
20
21                         $total_sales = mysqli_fetch_assoc($total_sales_query_run)['total_sales'];
22
23                         if ($total_sales) {
24                             echo '<h4 class="mb-0">RM' . $total_sales . '</h4>';
25                         } else {
26                             echo '<h4 class="mb-0">No Sales</h4>';
27                         }
28                     <?>
29                 </div>
30                 <div class="card-footer d-flex align-items-center justify-content-between">
31                     <a class="small text-white stretched-link" href="sales.php">View Details</a>
32                     <div class="small text-white"><i class="fas fa-angle-right"></i></div>
33                 </div>
34             </div>
```

Snippet 5: Admin Dashboard

Cart.php

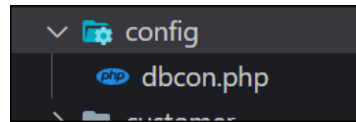
- Code snippet of cart system in the ecommerce site

```
customer > cart.php > ...
1  <?php
2  session_start();
3  include('../config/dbcon.php');
4  include('includes/header.php');
5
6  $cart = isset($_SESSION['cart']) ? $_SESSION['cart'] : array();
7
8  $total = 0;
9  foreach ($cart as $product_id => $product) {
10     $query = "SELECT price FROM products WHERE product_id = $product_id";
11     $query_run = mysqli_query($con, $query);
12     $row = mysqli_fetch_assoc($query_run);
13
14     $subtotal = $row['price'] * $product['quantity'];
15     $total += $subtotal;
16
17     $cart[$product_id]['subtotal'] = $subtotal;
18 }
19
20 $_SESSION['cart'] = $cart;
21
22 <?>
23
24 <div class="container-fluid px-4">
25     <h1 class="mt-4">View Cart</h1>
26     <ol class="breadcrumb mb-5">
27         <li class="breadcrumb-item active">Cart</li>
28         <li class="breadcrumb-item">View Cart</li>
29     </ol>
```

Snippet 6: Cart System

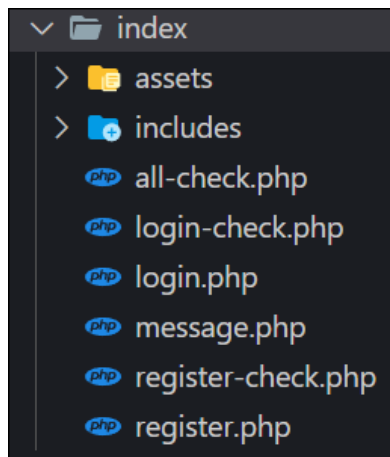
Directories

- 1) configuration: for database connection



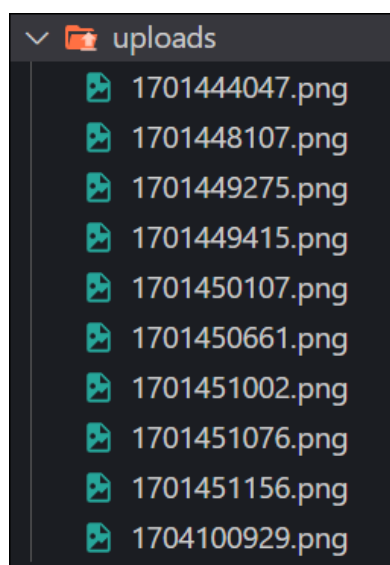
Snippet 7: Configuration Directories

- 2) index: for login page and register page



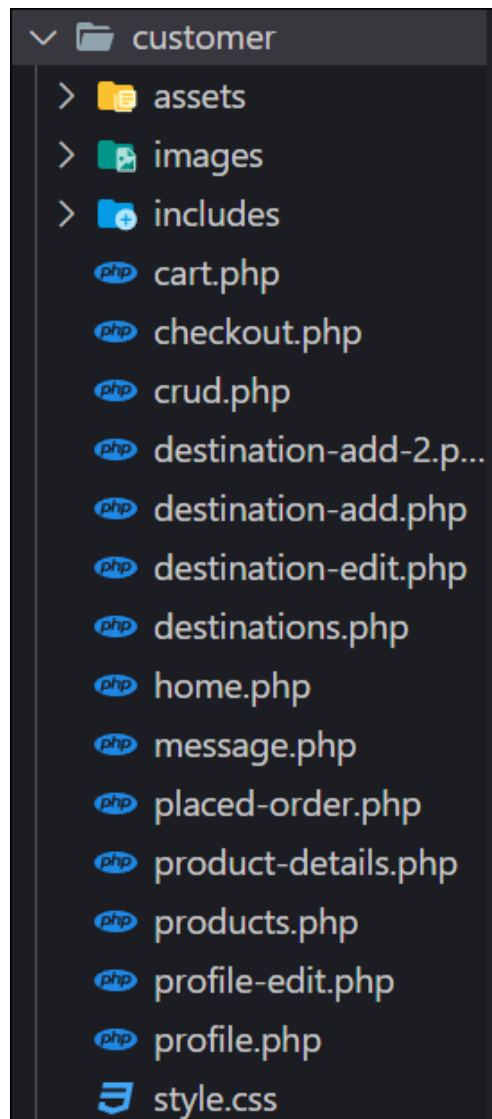
Snippet 8: Index Directories

- 3) uploads: all uploaded images (such as product image) will be stored in here



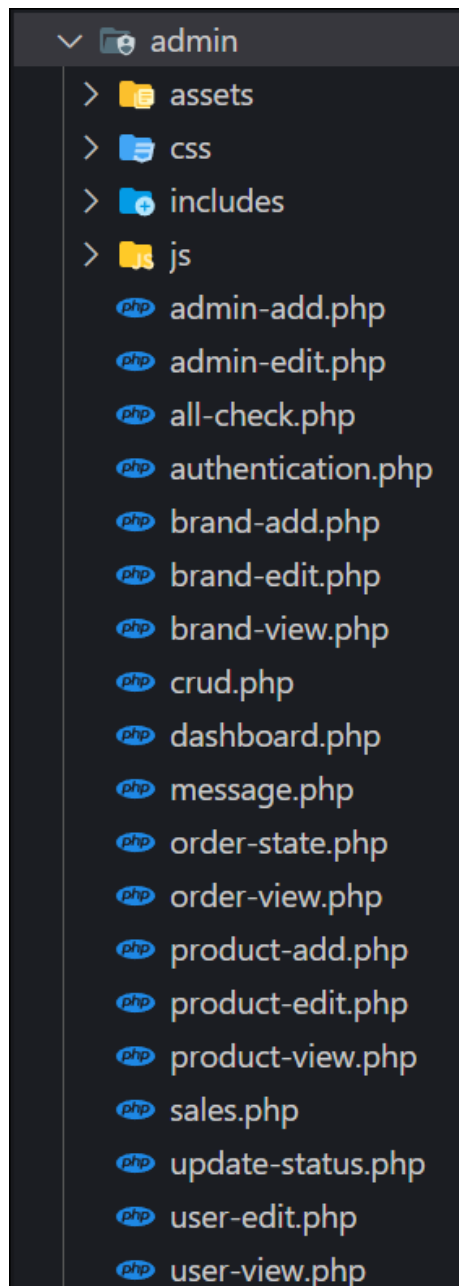
Snippet 9: Uploads Directories

4) customer: store pages, cart system, and profile pages



Snippet 10: Customer Directories

- 5) admin: consists of dashboard for summary, a mechanisms to add, delete, and edit data like registered users



Snippet 11: Admin Directories

3.5 Deployment phase

The deployment phase of a shop watches e-commerce project involves transferring the developed system to a live environment. Tasks include server setup, database configuration, software installation, and testing to ensure smooth functionality. This phase ensures the platform is accessible to users for real transactions.

3.5 Testing phase

In the testing phase of our system, various tests are conducted to ensure system reliability. This includes unit testing for individual components, integration testing to check interactions between modules, performance testing to assess system responsiveness, security testing to identify vulnerabilities, and user acceptance testing for overall usability. Rigorous testing helps ensure a robust and bug-free e-commerce platform.

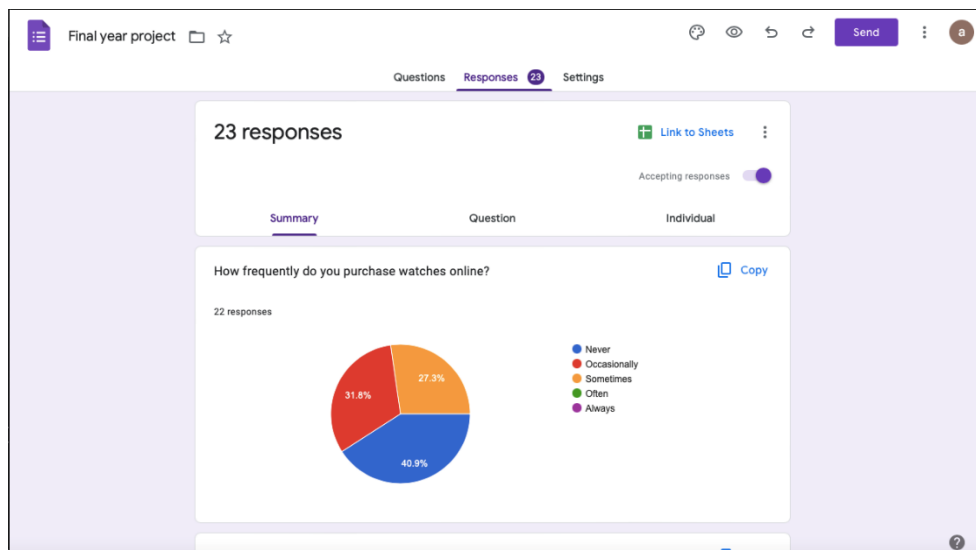
CHAPTER 4: RESULT AND DISCUSSION

4.1 Introduction

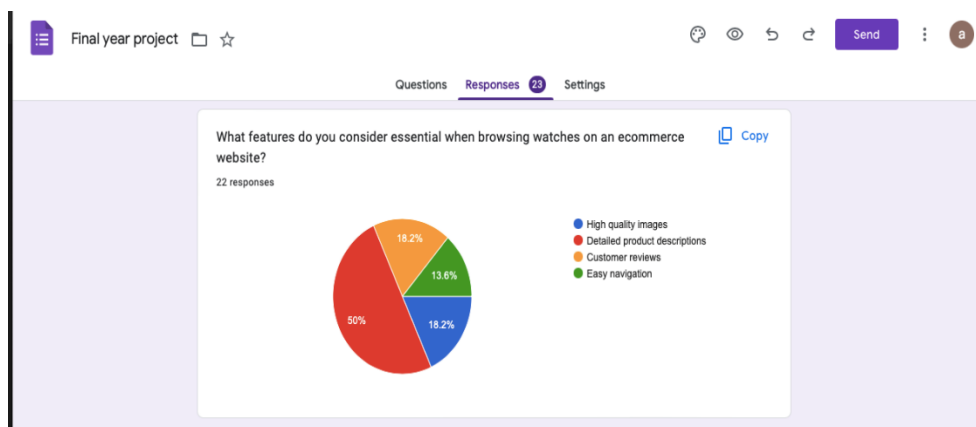
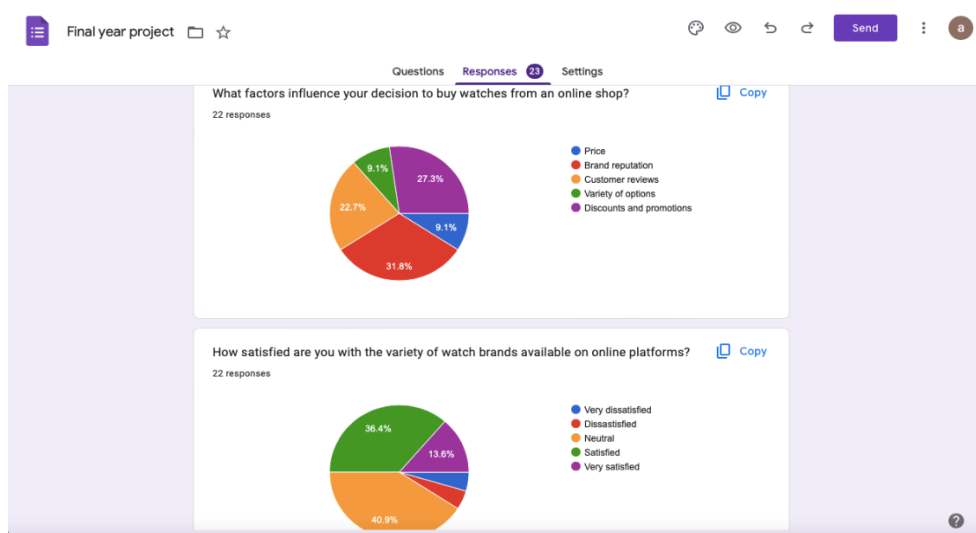
The culmination of our shop watches ecommerce project unveils a comprehensive tapestry of consumer behaviors, preferences, and challenges within this dynamic digital marketplace. In this section, we delve into the survey results to extract meaningful insights that provide a nuanced understanding of the factors shaping consumer decisions. From exploring the influences guiding online watch purchases to evaluating satisfaction levels with product variety, this discussion aims to paint a vivid picture of the intricacies within the shop watches ecommerce sector.

4.2 Survey Results

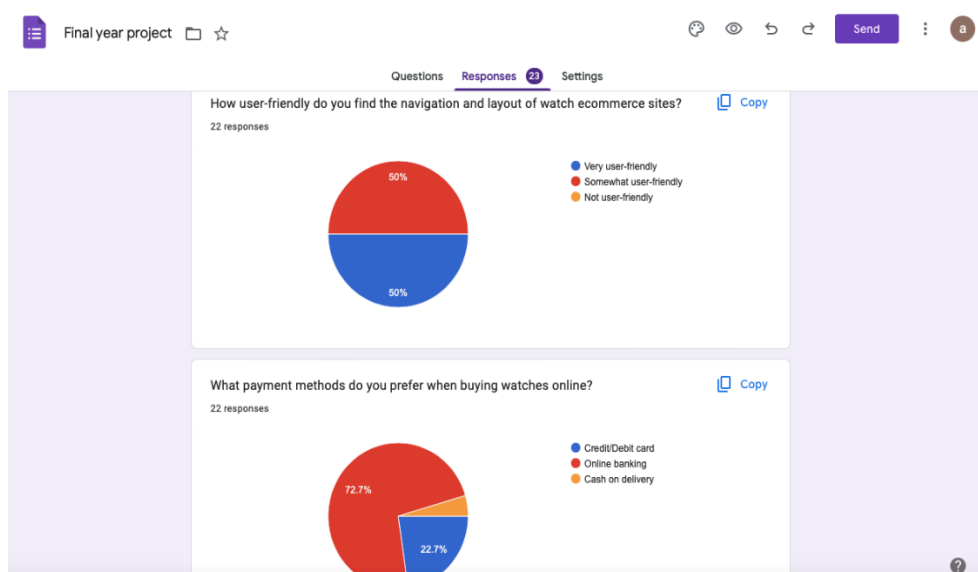
Our survey aimed to unravel the intricacies of consumer behavior in the shop watches ecommerce sector. The results provide valuable insights into key aspects that influence purchasing decisions and overall satisfaction.



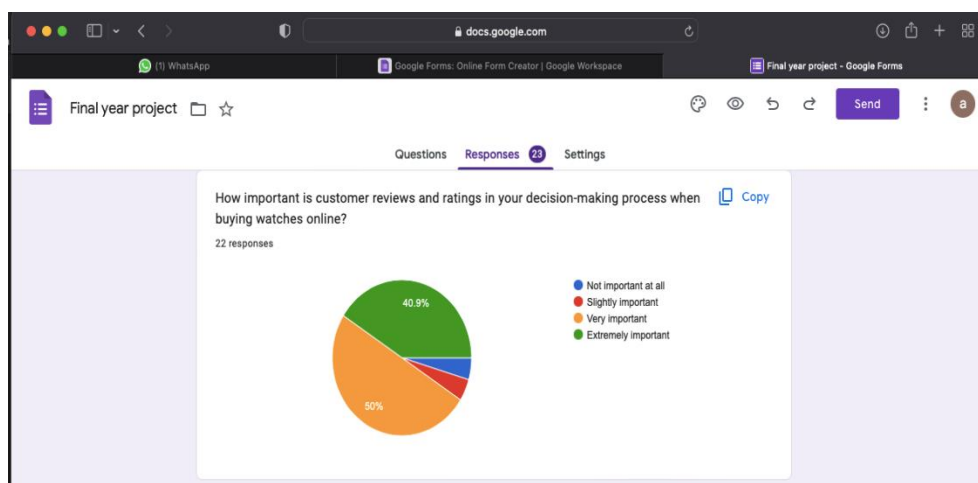
Assessing consumer satisfaction with the variety of watch brands available on online platforms is integral to understanding market dynamics. Our survey indicates diverse sentiments, revealing insights into the strengths and potential areas for improvement in the shop watches ecommerce sector. Analyzing satisfaction levels contributes to a comprehensive understanding of consumer preferences and the competitive landscape.

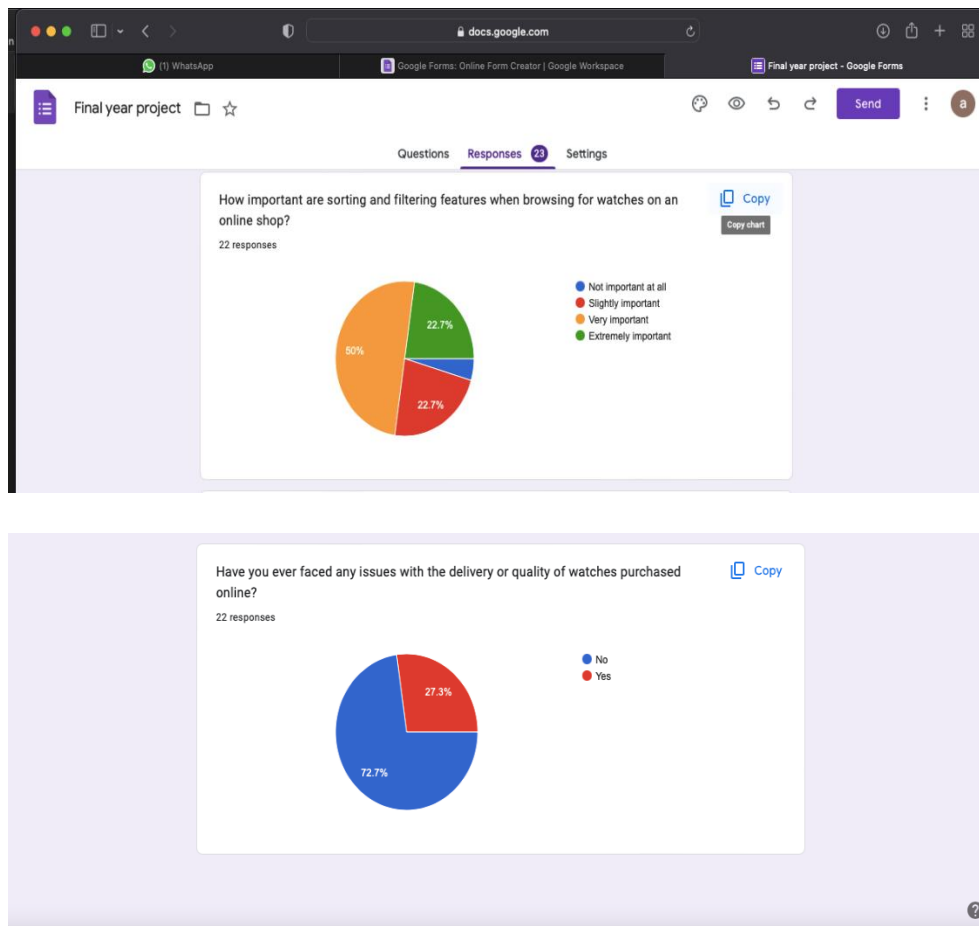


This shows a clear trend in consumer decision-making, with a majority of respondents placing significant importance on brand reputation and customer reviews when making online watch purchases. It also shows a diverse landscape in satisfaction levels regarding the variety of watch brands available online, underscoring the need for platforms to continually refine and expand their product offerings to cater to varying consumer preferences.



Exploring the factors influencing consumers' decisions in purchasing watches from online shops is vital for understanding market dynamics. Our survey reveals a spectrum of influences, ranging from product variety and pricing to trustworthiness and user reviews. Analyzing these factors provides valuable insights into the key drivers shaping consumer behavior in the shop watches ecommerce sector.





Our survey revealed fascinating insights into the factors influencing consumers' decisions to purchase watches online. From brand reputation and pricing to the significance of customer reviews, we explore the intricate web of influences that guide consumers through their decision-making journey. The survey brought to light various challenges faced by consumers in the shop watches ecommerce experience. Whether concerning authenticity, delivery times, or website usability, understanding these challenges provides a roadmap for businesses to enhance their operations and address pain points, turning challenges into opportunities.

4.2.1 Unit Testing

Below is the test case result with six acceptance criterias to test out a few features in the shop watches ecommerce to assure the functionality. All the criterias has been tested out and passed the test.

Test Case 1: Try To View Store Page					Status (fail/pass) : PASS
Acceptance Criteria	Test Scenario	Test Data	Actual Outcome	Expected Outcome	Comments/Improvements
User can view the store page without the need to log in.	1. Browse the store page. 2. Add item into cart.	N/A	Can browse all the products and got between pages, could not access the add to cart function	Cart, rating, and profile feature couldn't be accessed	
Test Case 2: Try To Create Account					Status (fail/pass) : PASS
Acceptance Criteria	Test Scenario	Test Data	Actual Outcome	Expected Outcome	Comments/Improvements
User can fill out registration form to create a new account	1. Go to index register page. 2. Fill out the form and submit	Name: Abdul Jamal Email: abd@gmail.com Password: 123abd	No problem occurs and account is created successfully	Account is created successfully	
Test Case 3: Try To Log In					Status (fail/pass) : PASS
Acceptance Criteria	Test Scenario	Test Data	Actual Outcome	Expected Outcome	Comments/Improvements
User can enter email and password and log in	1. Go to index log in page 2. Enter email and password and log in	Email: abd@gmail.com Password: 123abd	User has logged in successfully with no problem	User is successfully logged in	

Figure 16: Test Case (1)

Test Case 4: Try The Cart System					Status (fail/pass) : PASS
Acceptance Criteria	Test Scenario	Test Data	Actual Outcome	Expected Outcome	Comments/Improvements
User can add, remove, and adjust product quantity in cart	1. Add desired product into cart from catalogue 2. Remove product from cart. 3. Adjust quantity of product.	1. Adding G-Shock Yellow into cart 2. Adjust quantity from 1 to 3 in cart. 3. Remove G-Shock Yellow	Desired product is added to cart, adjusted quantity and removed from cart.	Products can successfully be added, removed, and adjusted quantity in cart.	
Test Case 5: Try To Checkout					Status (fail/pass) : PASS
Acceptance Criteria	Test Scenario	Test Data	Actual Outcome	Expected Outcome	Comments/Improvements
User can add new and/or choose among shipping destinations, and choose the payment type	1. Add new address and fill out the form. 2. Choose between addresses. 3. Choose payment type.	Location: Home Address: No 3, Jalan Wangi Postcode: 43200 City: Kajang State: Selangor	Shipping address is added among destinations choices. Payment type is chosen successfully.	New shipping address added successfully among the destinations choices. Payment type successfully chosen.	
Test Case 6: Try To Rate & Review Bought Products					Status (fail/pass) : PASS
Acceptance Criteria	Test Scenario	Test Data	Actual Outcome	Expected Outcome	Comments/Improvements
User can rate and leave review on bought products	1. Go to products that have been bought. 2. Leave a ratings and review. 3. Try with emoji and symbols.	Rating: 5 stars Review: "I love this watch for real!!"	Rating and review left successfully on bought product with no problem.	Bought product is rated and reviewed successfully with emoji and symbols.	

Figure 17: Test Case (2)

4.3 Discussion

This survey contributes valuable data to the understanding of consumer behavior in the shop watches ecommerce sector. By delving into these insights, businesses can refine their strategies, address challenges, and ultimately enhance the overall customer experience in this thriving online market.

CHAPTER 5: CONCLUSION

5.1 Conclusion

In conclusion, our shop watches ecommerce project boasts a contemporary and user-friendly interface that seamlessly merges sophistication with functionality. The clean layout, sleek typography, and subtle color scheme create a modern aesthetic, while the high-quality images and intuitive navigation enhance the overall user experience. The mobile responsiveness ensures accessibility, making it convenient for users to explore and purchase watches across various devices. With a focus on both style and usability, our ecommerce platform is well-positioned to captivate and engage customers in the world of timeless timepieces. As we bid farewell to the initial phase of "The 5 O'Clock," the hope is to see this project evolve into a beacon of innovation and customer-centricity. Moving forward, the commitment lies in continuous refinement, embracing emerging trends, enhancing the digital experience, and expanding our curated collections.

5.2 Future Recommendation

- Implement advanced personalization algorithms to provide tailored recommendations based on customers' preferences, purchase history, and browsing behavior. This can enhance user engagement and increase the likelihood of conversions.
- Invest in optimizing the mobile interface to meet the growing trend of mobile shopping for watches. Ensure a seamless and user-friendly experience across various devices, with a particular focus on mobile responsiveness.
- Continuously expand the variety of watch brands and styles offered on the platform. Consider forming partnerships with emerging or niche watch brands to diversify the product catalog and attract a broader range of customers.
- Enhance customer support channels, introducing live chat, and ensuring timely responses to customer inquiries. Proactive communication regarding order status, promotions, and product updates can contribute to a positive customer experience.
- Strengthen your social media presence to engage with customers and create a sense of community around your brand. Utilize platforms like Instagram, Facebook, and Twitter to showcase new arrivals, customer reviews, and behind-the-scenes content.

5.3 Summary

This comprehensive report on shop watches ecommerce begins with an engaging introduction, setting the stage for a detailed exploration of consumer behavior within the dynamic online watch retail market. The literature review meticulously examines existing research and industry trends, establishing a robust foundation for the subsequent investigation. The methodology section outlines a rigorous approach to survey design and data collection, ensuring the reliability of the project's findings. The core of the report, the results and discussion section, uncovers valuable insights into consumer decision-making, satisfaction with product variety, challenges faced, mobile shopping trends, and demographic variations. This nuanced analysis serves as a bridge to the conclusion, where key project insights are synthesized. The report not only contributes rich data to the understanding of shop watches ecommerce but also offers actionable recommendations for businesses to optimize strategies and navigate the evolving landscape successfully.

4.0 References

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Brasel, H., Harborth, M., Tautenhahn, T. and Willenius, P. (1999) On the Set of Solutions of Open Shop Problem. *Annals of Operations Research*, 92, 241-263. <http://dx.doi.org/10.1023/A:1018938915709>

APPENDIX A

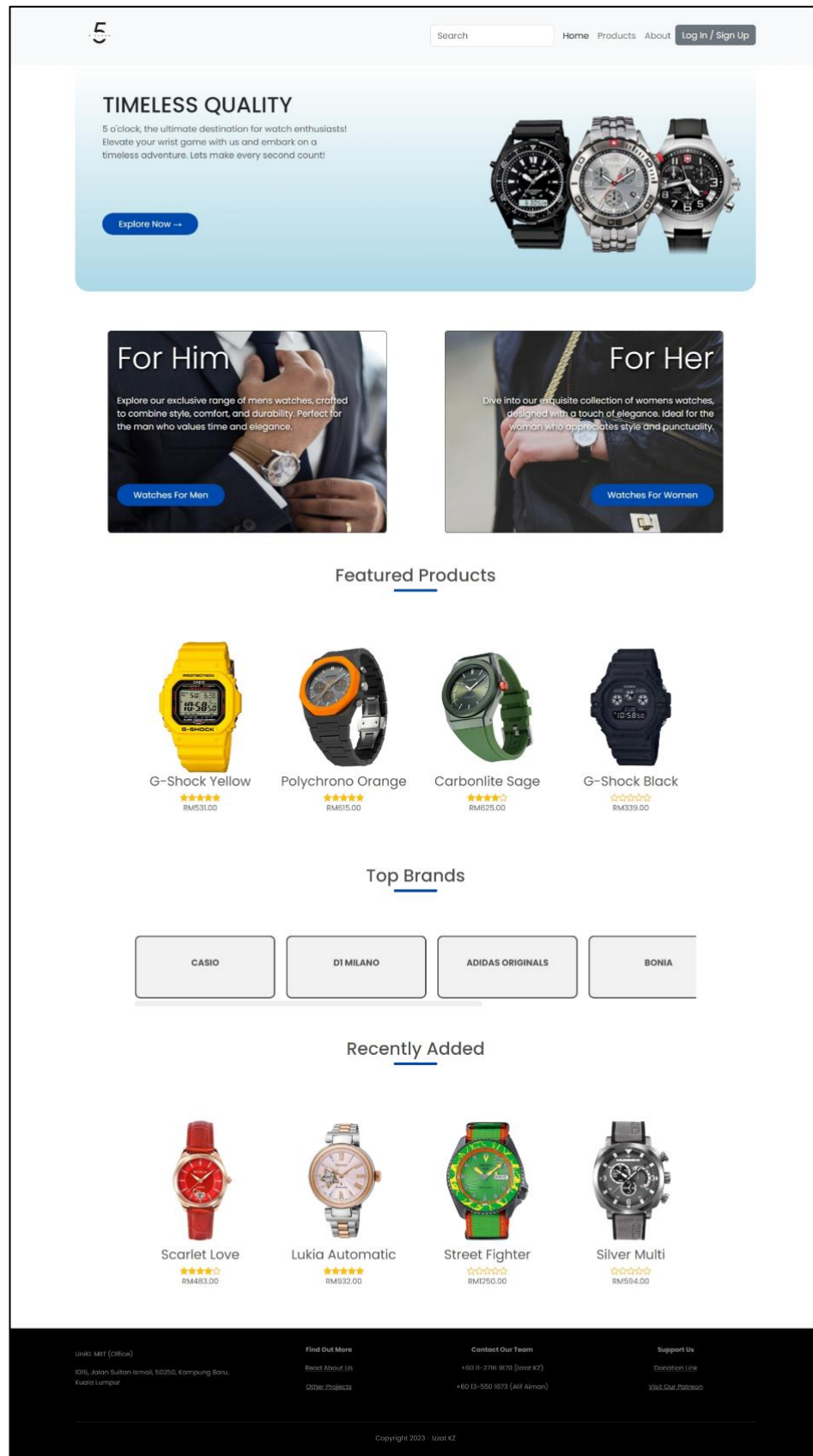


Figure 18: Home Page