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An Undergraduate Internship on Ultrashop

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An Undergraduate Internship on Ultrashop

By

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Summer, 2023

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October 5, 2023

Dissertation submitted in partial fulfillment for the degree of Bachelor of Science in Computer Science

Department of Computer Science & Engineering

Independent University, Bangladesh

Attestation

This attestation is to con rm that Tasnia Tabassum Oishee (1910040) completed the report "Ultrashop" and submitted it as part of the requirements for the Degree in Computer Science and Engineering from Independent University, Bangladesh (IUB). Under the supervision of Mr. Mahir Al Kamal (Supervisor), the report was completed. I also guarantee for the originality of all the work presented in this report. According to academic standards, all information used in the project and report have been correctly acknowledged and credited.

_____ _____ 05.10.23_____

Signature Date

Tasnia Tabassum Oishee

_____

Name

Acknowledgement

Firstly, I want to acknowledge how grateful and appreciative I am for the chance to finish my internship with ADN Diginet Limited.Additionally, I want to express my gratitude to my supervisors, Mr.Mahir Al Kamal and Ms.Marzan Binte Hassan for their assistance and guidance throughout the internship period.

I want to thank my supervisors at the company who have helped me to connect my knowledge in industry projects. The team's experience, teamwork, and willingness to help me have greatly improved my learning experience. Additionally, I would like to acknowledge the healthy work environment at ADN Diginet Limited which has helped me in connecting with them and has also helped me to seek assistance in work when needed.

I also want to express my sincere gratitude to the Department of Computer Science and Engineering for training us for the internship interviews and helping us to enhance our skills. I would also like to thank all the faculty members for sharing their valuable knowledge with us and preparing us for our professional career.

Lastly, I would like to conclude by expressing deep appreciation for the skills, information, and experiences I gained while serving as an intern at ADN Diginet Limited. The knowledge I have gained in the internship period would always help me professionally.

Letter of Transmittal

Mr.Mahir Al Kamal
Lecturer
Department of Computer Science and Engineering
School of Engineering and Computer Science
Independent University, Bangladesh

Subject: Submission of the nal internship report as per the graduation requirement

Dear Sir,

Firstly, I would like to convey my sincere respect and would like to acknowledge that I am submitting my Internship Report. I had the chance to develop both theoretical and practical knowledge during this internship, as well as professional relationships.It was an honor to work under your supervision and receive your guidance.

I have worked faithfully so that this report is as thorough as possible by utilizing the abilities and knowledge I gained throughout my internship.I followed the instructions carefully and gave adequate details in the report. I believe that this report will successfully achieve the goal of the internship program. I would be extremely grateful if you could evaluate the report and provide your valuable insight. It would be a great achievement if you considered the report was informative and useful for getting a better understanding of my internship experience.

Sincerely,
Tasnia Tabassum Oishee
Student ID: 1910040
Department of Computer Science and Engineering
Independent University, Bangladesh

Evaluation Committee

Abstract

As an intern at ADN Diginet, I had an opportunity to acquire valuable knowledge and connect theoretical knowledge with practical experience. As a data analyst intern, I was enrolled in the \Hire and Train" program in their EDGE (Enhancing Digital Government Economy) project. This program is sponsored by the Bangladesh Computer Council (BCC) and IIT, University of Dhaka. Initially, I had been trained in data analytics and learned data visualization using Microsoft powerBI software and worked on various projects to design CXO dashboards. Simultaneously, I was assigned to work on the backend and frontend with the customer module team to build an e-commerce website that they would launch in the future.

Ultrashop is an e-commerce website that aims in solving the problems faced in the traditional e-commerce platforms in Bangladesh. The website allows customers to buy their desired products online. Customers can also add the products they want to buy in the future to their wishlist and can view their order history. The website would implement a virtual trial for customers which would be done by the Machine Learning team. Additionally, customers can also choose their desired delivery method -online or pick up from the store. I have been assigned to work on user registration, resetting password through link from email, ltering products by brand or categories, browsing products, viewing products in details. To understand the requirements of the project, I had to work with the trainer to identify the problems in the traditional e-commerce websites as well as document the project proposal and design parts of the database.

To summarize, my internship experience at ADN DigiNet has been a greaT learning opportunity that allowed me to connect theoretical knowledge to real-life industry projects. Along with enhancing my backend development skills, I have gained valuable knowledge in data analytics. Working in teams has helped me develop teamwork skills and also enhance time management, project management, and problem-solving skills. I hope to be able to put my internship-related knowledge and experience to good use as I pursue a career in backend development.

Keywords| powerBI, CXO dashboard, data visualization

Contents

Attestation i

Acknowledgement ii

Letter of Transmittal iii

Evaluation Committee iv

Abstract v

1 Introduction 1
- 1.1 Overview/Background of the Work 1
- 1.2 Objectives 1
- 1.3 Scopes 2

2 Literature Review 3
- 2.1 Relationship with Undergraduate Studies 3
- 2.2 Related works 4

3 Project Management & Financing 5
- 3.1 Work Breakdown Structure 5
- 3.2 Process/Activity wise Time Distribution 6
- 3.3 Gantt Chart 6
- 3.4 Process/Activity wise Resource Allocation 7
- 3.5 Estimated Costing 7

4 Methodology 8

5 Body of the Project 9
- 5.1 Work Description 9
- 5.2 System Analysis 10
  - 5.2.1 Six Element Analysis 10
  - 5.2.2 Feasibility Analysis 10
  - 5.2.3 Problem Solution Analysis 11
  - 5.2.4 E ect and Constraints Analysis 11

5.3 System Design 12
5.3.1 Rich Picture 12
5.3.2 UML Diagrams 12
5.3.3 Functional Requirements 17
5.3.4 Non-Functional Requirements 18
5.4 Implementation 19
5.5 Product Features 24
5.5.1 Testing - Input and Output 24
5.5.2 Architecture 25

6 Results & Analysis 26

7 Project as Engineering Problem Analysis 27
7.1 Sustainability of the Project/Work 27
7.2 Social and Environmental E ects and Analysis 28
7.3 Addressing Ethics and Ethical Issues 29

8 Lesson Learned 30
8.1 Problems Faced During this Period 30
8.2 Solution of those Problems 31

9 Future Work & Conclusion 32
9.1 Future Works 32
9.2 Conclusion 32

List of Figures

3.1 WBS for Ultrashop 5
3.2 Time Distribution for Ultrashop 6
3.3 Gantt Chart 6

5.1 Six Element Analysis 10
5.2 E ect and Constraint Analysis 11
5.3 Rich picture 12
5.4 Use Case for Ultrashop 13
5.5 Signup Process 14
5.6 Reset Password Process 15
5.7 Browse Products Process 16
5.8 Wishlist Process 17
5.9 Homepage 19
5.10 Homepage 19
5.11 Homepage 20
5.12 Signup Page 20
5.13 Login Page 21
5.14 Password Reset Form 21
5.15 Password Reset Con rmation 21
5.16 Password Reset Done 22
5.17 Password Reset Email 22
5.18 Product Details Page 22
5.19 Filter Products by Brand 23
5.20 Filter Products by Category 23
5.21 Input for testing 24
5.22 Output for testing 24

List of Tables

3.1 Resource allocation per task 7
3.2 Cost estimation 7

Chapter 1

Introduction

1.1 Overview/Background of the Work

Ultrashop is an e-commerce platform where users can purchase their desired products easily. However, it is not just any other e-commerce platform. It has a variety of brands available so products from di erent brands will be under one umbrella now and it would make it easier for the customers to get all the products from di erent places at one platform. By making sure that the UX is easy to navigate, Ultrashop ensures customers have a smooth browsing experience. It also has pickup options so that customers can also pick up the product by themselves if they want to. Moreover, the company plans to add more features to enhance the project even more. For example, they want to introduce a virtual trial system, an analytical report based on the products and provide business solutions, they also want to incorporate more languages,etc.

1.2 Objectives

The objective of this project is to make it easier for customers to make purchases. Moreover, as it is a generic project, it is easily customizable as per the requirements from di erent clients. Now, similar projects would not have to be coded from scratch and it would save both time and cost. Customers can also have multiple shipping addresses. More objectives include:

- User interface that is easily customizable.
- User interface to be easy to navigate.
- Viewing the latest products rst.
- Less complex designs so that users can easily understand where to navigate.
- Reuse components of the code

1.3 Scopes

The scope of the project is to build a generic e-commerce website so that each time an e-commerce project has to be implemented, the technical team would not have to start coding from scratch again. Also, it is easily customizing so clients can add more requirements and decide on which features they want. Hence, there are many scopes of this project.

- Resetting password via email:
  - More secure.
  - Users can now use their email for changing passwords.
- Browsing latest products first:
  - Makes it easier for customers to see what is new on the website.
  - Users can easily see what is on trend.
- Map on contact us:
  - Google map location of the company has been integrated.
  - Users can now easily understand the location.
- Sign up:
  - Allows users to sign up easily.
  - Strong passwords are required.
- Filtering Products by brand/category:
  - Users can easily find the products based on their desired brand or category.
  - Optimizes the browsing for users.
- Viewing Product Details:
  - Users can see the details of the products with multiple images of the product and specifications as well as quantity.

Chapter 2

Literature Review

2.1 Relationship with Undergraduate Studies

The knowledge and skills gathered throughout my undergraduate studies has helped me in my internship. The programming course helped to build up programming skills and learn the basics to the advanced level. Since most of the programming courses had group projects, meeting deadlines, working with a team and building project management skills as well as communication with teammates was helpful in the workplace since I had to work in teams there as well. The projects in the courses helped me to choose a career in software development and understand the gist of software development. The following courses have been directly relevant to my internship project.

- CSE303(Database Management) : The main objective of this course was for us to be able to design a website connecting both back-end and front-end while also designing the database and learning the fundamentals of database management. The project of this course helped us to get the full knowledge about how a website is designed from scratch.
- CSE309 (Web Applications and Internet) :We have learned to design a website using HTML, CSS and implement it by using PHP, or Django for the back-end. The assignments in this course helped us to understand the technologies and to enhance our skills in web development and designing as well.
- CSE307 (System Analysis and Design) : This course has helped in understanding how a system should be analyzed before designing it and also after the implementation. It has helped in understanding how the requirements of a system could be met. Moreover, the assignments in this course helped us to learn how to document each segment of the system so that the gap between technical and non-technical people can be reduced.
- CSE203+L (Data Structure) :In this course, the various types of data structures are taught in depth. The concepts of each of these structures helped to understand how to optimize the code.

2.2 Related works

Since there are many e-commerce websites used now in Bangladesh which are similar to Ultrashop, some of the websites have been discussed below.

- Shopify online e-commerce website :In this research, a website called \Shopify" was built to understand the methodology of an e-commerce website. Bootstrap, HTML5, and CSS3 were used to design the frontend. For the database, mySQL was used and for the backend, they have used Django. Shopify carries out the basic operations of an e-commerce website such as buying, selling, making payments.[1].
- Design of e-commerce website based on Django : HTML and Javascript was used to implement the frontend of the system while python with Django was used for the backend. The user searches for the data and imports it into the MySQL database, which is then used to create the system's database and allow for the integration and modi cation of the data. This paper focuses on the basic operations of an e-commerce website i.e. order processing, ordering, buying.[2]
- Using the Django framework for e-commerce processes : This paper discusses the implementation of websites using django which uses the MVC framework. It also describes the concept of classes in Django.[3]

Chapter 3

Project Management & Financing

3.1 Work Breakdown Structure

A work breakdown structure is a tool that o ers a hierarchical view of a project and is used to divide it into more manageable, smaller jobs. It also acts as the main source for planning the activities' schedules and calculating the development costs and time of the project, ensuring that each work is identi ed and completed e ciently. A work breakdown structure has been built for this project, as shown below, which essentially provides an overview of the entire process that occurs throughout each particular task that is assigned to us.

Figure 3.1: WBS for Ultrashop

3.2 Process/Activity wise Time Distribution

The amount of time needed to complete each task during software development is referred to as the "process wise time distribution." Figure 1 illustrates how our approach is primarily focused on 4 activities: requirement analysis, development, testing, and deployment. Figure 2 illustrates the time distribution for each activity using the critical path method, which allows project managers to concentrate on the most important tasks and allocate resources accordingly to complete their objectives within the designated time.

Figure 3.2: Time Distribution for Ultrashop

3.3 Gantt Chart

Gantt Chart is a project management tool that enables management to see the project's schedule and monitor its progress over time. Each length of the bar in this illustration denotes the time required to finish a certain task. Figure 3 shows the duration of the internship program at ADN Diginet Limited. Each and every duty that has been assigned follows the aforementioned activities, which are repeated two weeks following each sprint.

Figure 3.3: Gantt Chart

3.4 Process/Activity wise Resource Allocation

Process wise resource allocation is a tool which records the allocation of resources to each project development activity as well as the amount of time needed to nish each activity. Figure 5 displays the time needed for each activity throughout the course of a 23-day period length of each sprint as well as the proportion of overall work that each activity requires 23 days. It has been observed that the development requires the highest percentage of resources while the deployment takes the lowest.

Activity	Duration/days	Work(%)
Requirement Analysis	4	17.4
Code development	15	65.2
Testing	3	13.1
Deployment	1	4.3
Total	23	100

Table 3.1: Resource allocation per task

3.5 Estimated Costing

It should be noted that the price listed is an estimate and not an accurate representation of the price. The real costing report is available with the HR department and can be read by those in higher authorities for additional information due to the company's privacy policy.

Features	Estimated Cost
Internet	6000
UI/UX Designer	30000
Front-end Developer	45000
Back-end Developer	60000
Equipments	100000
Others	5000
Total	246000

Table 3.2: Cost estimation

Chapter 4

Methodology

Agile Methodology is followed at ADN Diginet Limited. Agile methodology is a flexible and client-oriented approach of managing projects and creating software that focuses on teamwork, adaptation, and distributing work in small fragments. At first, the team does some background research on the project that they would be doing by going through multiple similar projects. The team has weekly sprint meetings to finalize the requirements.After discussing with the project leader, the requirement is documented and on confirmation, the team shows each of their work on the meetings that take place once in every two weeks.The work then shifts to the development phase, with the main goals being the completion of the allocated tasks as well as a fully functional system free of any issues before the following sprint meeting. The code is then tested by the leader to ensure that it is bug free and to provide insights on the quality of the code. Changes are made as per the insights and shown in the next meeting.

Chapter 5

Body of the Project

5.1 Work Description

As a data analyst intern at ADN Diginet Limited, I had the opportunity to take part in projects related to data analytics as well as projects consisting of full stack development.

Ultrashop is a project that can be customized as per the client's requirement. I have worked with the customer module team as well as the general module team to work on various features of the website. I have worked on resetting passwords by getting links on email, product page, customer wishlist, account management, and ltering.I worked on the front-end as well as the back-end for these features. Additionally, I have worked on various projects that required web scraping. I have also worked on data analytics projects such as HRM dashboard, Finance Dashboard, etc. which were implemented using Microsoft powerBI after data cleaning.

5.2 System Analysis

5.2.1 Six Element Analysis

Figure 5.1: Six Element Analysis

5.2.2 Feasibility Analysis

- Technical feasibility :The technology required for the project has to be analyzed to know if it is available or can be implemented. Moreover, the expertise of the technical team assigned to the project has to be analyzed as well so that they can implement the features assigned to them successfully. The technology should be able to handle multiple user requests simultaneously and hence, it should be scalable. It has to be examined if the technology can ensure security measures.
- Economic Feasibility :A cost-bene t analysis is done to ensure that the pro t exceeds the expenses. Moreover, the sources of funding for the project should be identi ed as well to meet its budget allocation. All the expenses related to the project should be considered.
- Operational Feasibility :The market trends should be analyzed to understand if the product is in demand. An unique market strategy has to be developed to attract customers. There also has to be a good customer retention strategy so that the customers can be retained.

5.2.3 Problem Solution Analysis

To conduct problem solution analysis, at rst the existing problems were identi ed. One of the problems was resetting passwords. While most e-commerce websites provide resetting passwords on their webpage, we have implemented an email system for this. Everytime, an user wants to reset their password, they would be automatically sent an email with the reset password link which they can follow to reset their password. This is safer as well for the users. Some websites do not allow customers to add a wishlist, hence the wishlist was also implemented. Another problem was customers having only one billing address, so the website allows up to two billing addresses. Moreover, as this project can be customized as per clients speci cations, more features can be easily added.

5.2.4 E ect and Constraints Analysis

This analysis is done to identify the e ects and potential of the project as well as the constraints. This helps in achieving the goals of the project with the available resources.

Figure 5.2: E ect and Constraint Analysis

5.3 System Design

5.3.1 Rich Picture

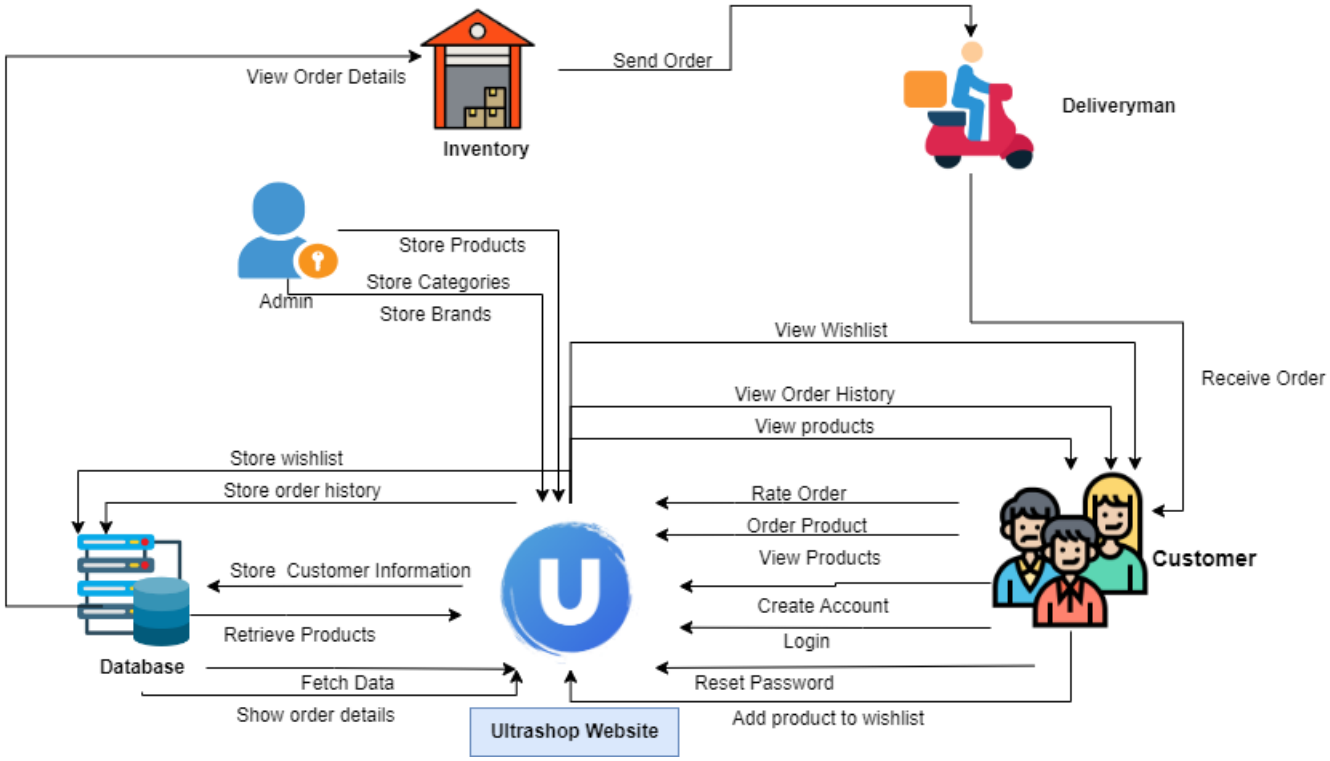


Figure 5.3: Rich picture

5.3.2 UML Diagrams

Uni ed Modelling Language(UML) diagrams serve as a pathway to understand the structure of a system. It consists of di erent diagrams. It also helps the developers to understand the requirements of the system. I used activity diagrams to understand the requirements of the parts I have worked on so that I can implement them correctly. Additionally, I have also used use case diagram.

Use case diagram

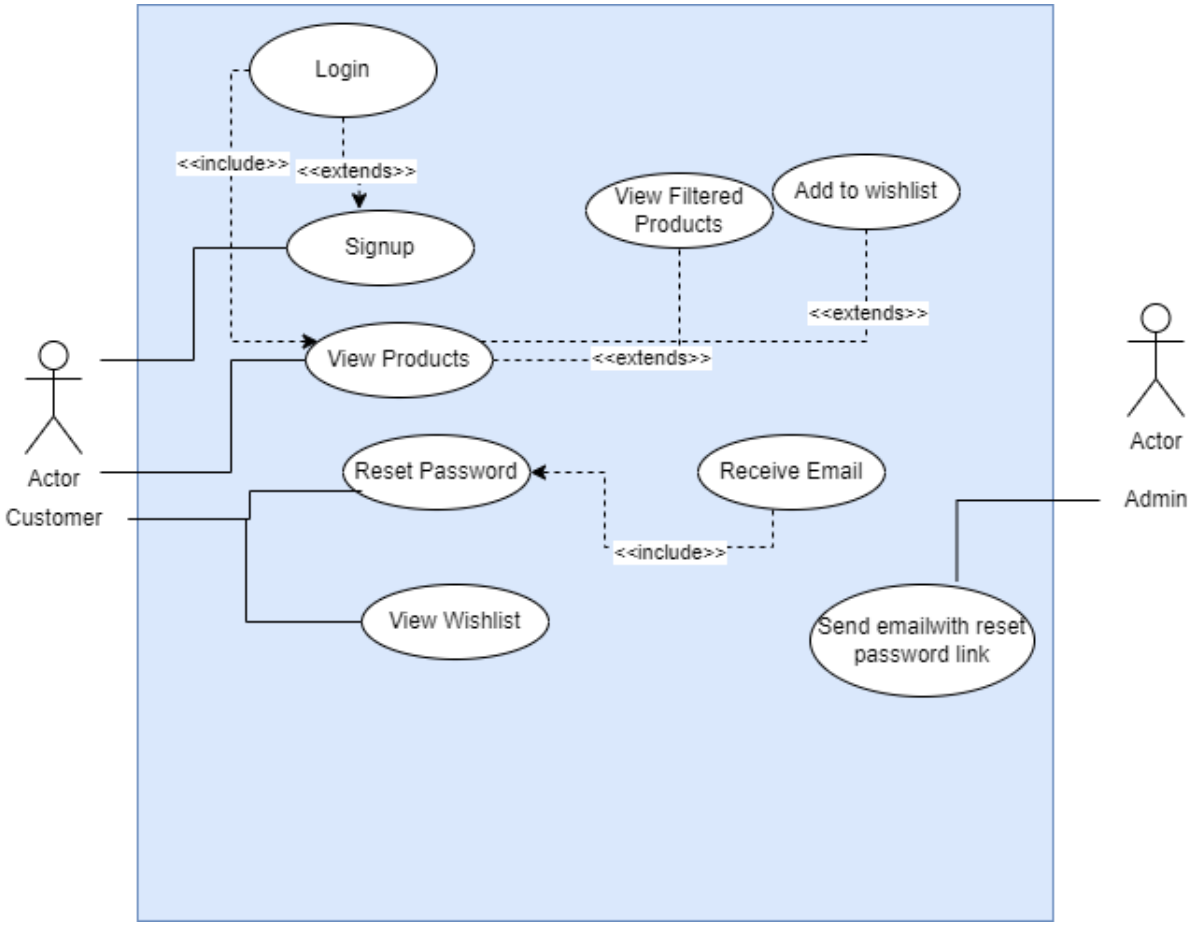


Figure 5.4: Use Case for Ultrashop

Activity diagrams

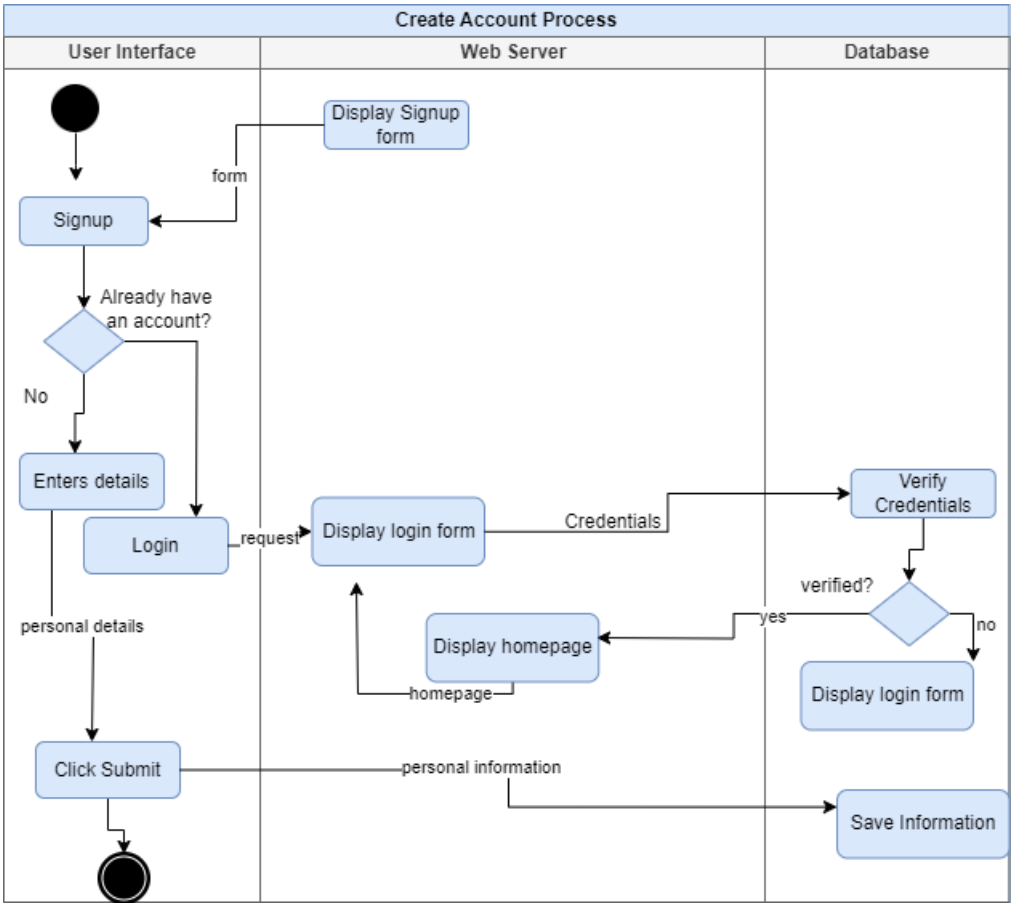


Figure 5.5: Signup Process

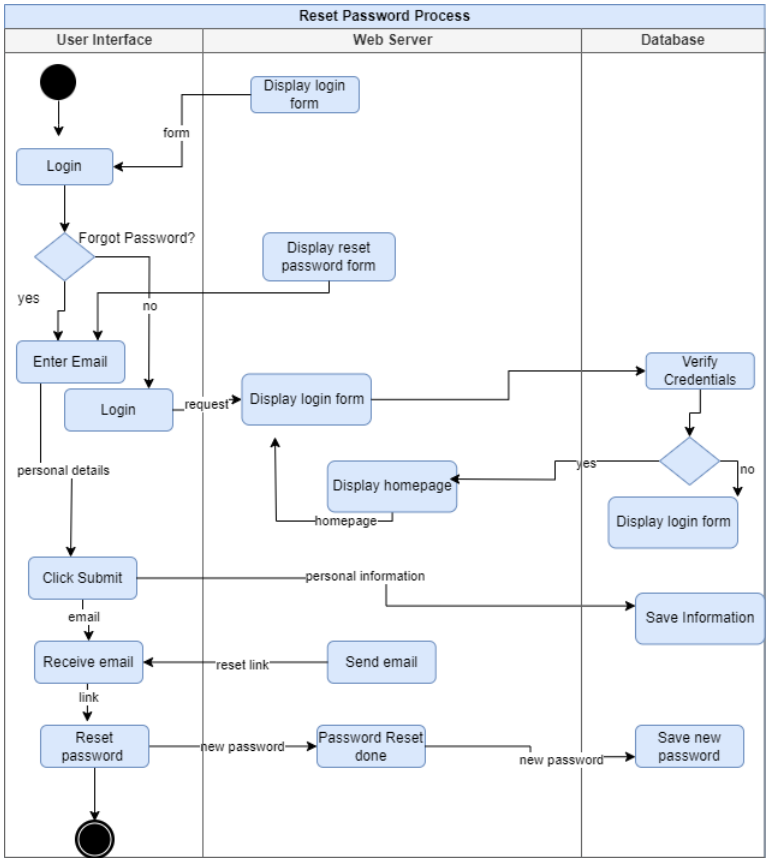


Figure 5.6: Reset Password Process

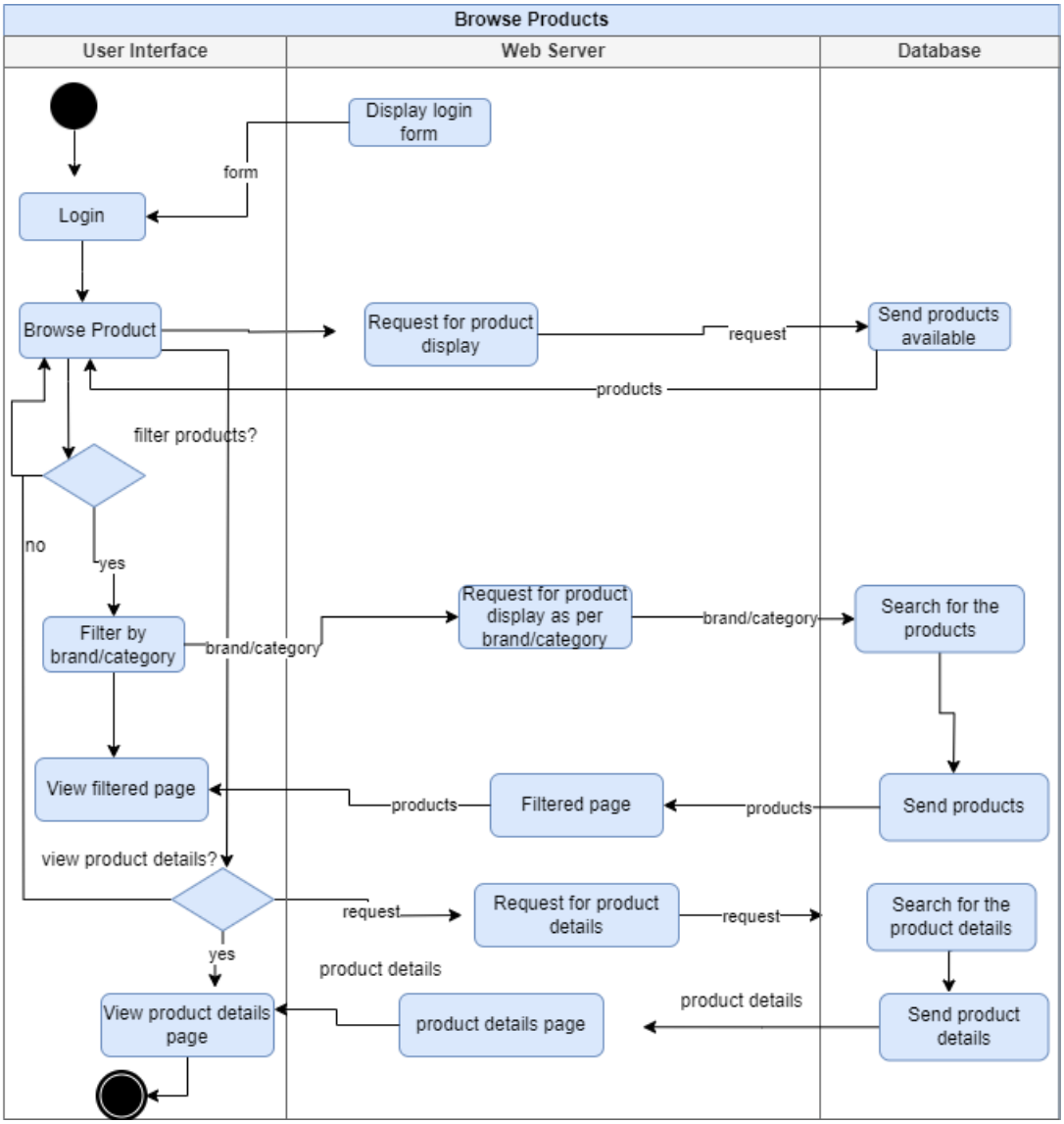


Figure 5.7: Browse Products Process

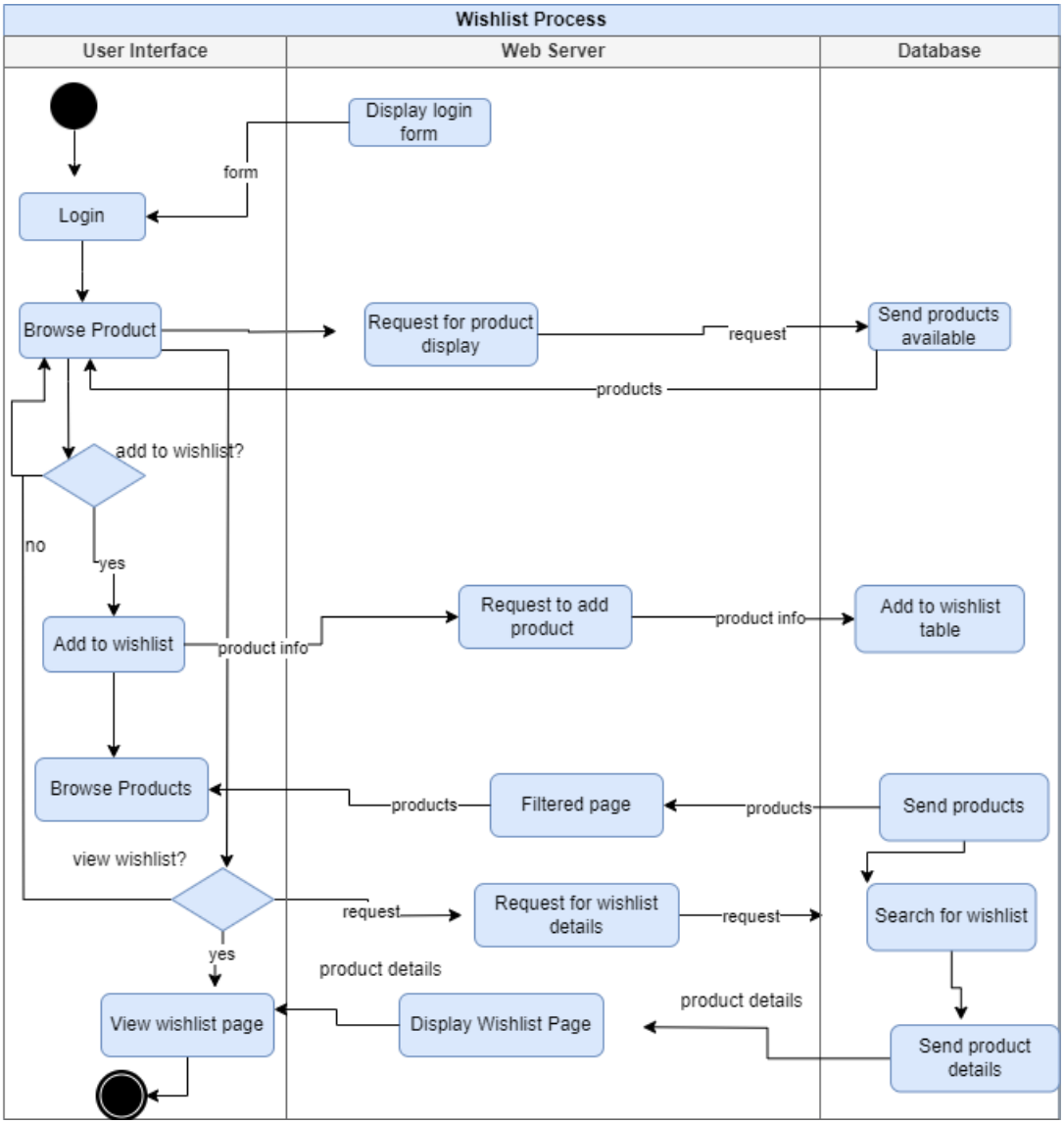


Figure 5.8: Wishlist Process

5.3.3 Functional Requirements

- Website visitors should be able to create new accounts.
- Logging into an account should be possible for users.
- Passwords should be reset by users via email link.
- Users should be able to receive reset password emails.
- Users should be able to browse through products.
- Users should be able to lter products by category.
- Users should be able to lter products by brand name.
- Users should be able to view a product in detail with description.

- Users should be able to add more than one billing address.
- Admin should be able to add products into the database.
- Admin should be able to add brands into the database.
- Admin should be able to add categories into the database.
- Products can have multiple images.

5.3.4 Non-Functional Requirements

- Performance : The website should be able to handle user requests and process them rapidly as the user needs to have a smooth browsing experience. It needs to be able to handle multiple user requests simultaneously.
- Security : User information must be secure as it contains sensitive information.Hence, strong security measures must be placed to avoid security breaches on the website.
- Availability : The website should be available 24/7. Hence, the downtime for any updates and maintenance should be as minimal as possible.
- Usability : The website should be easy to navigate since positive user experience is important. It should be responsive as well. Scalability: The website should be scalable regardless of the amount of users it has.
- Reliability : The website should be reliable so that customers can process payments securely. Moreover, it also has an impact on the reputation of the company.

5.4 Implementation

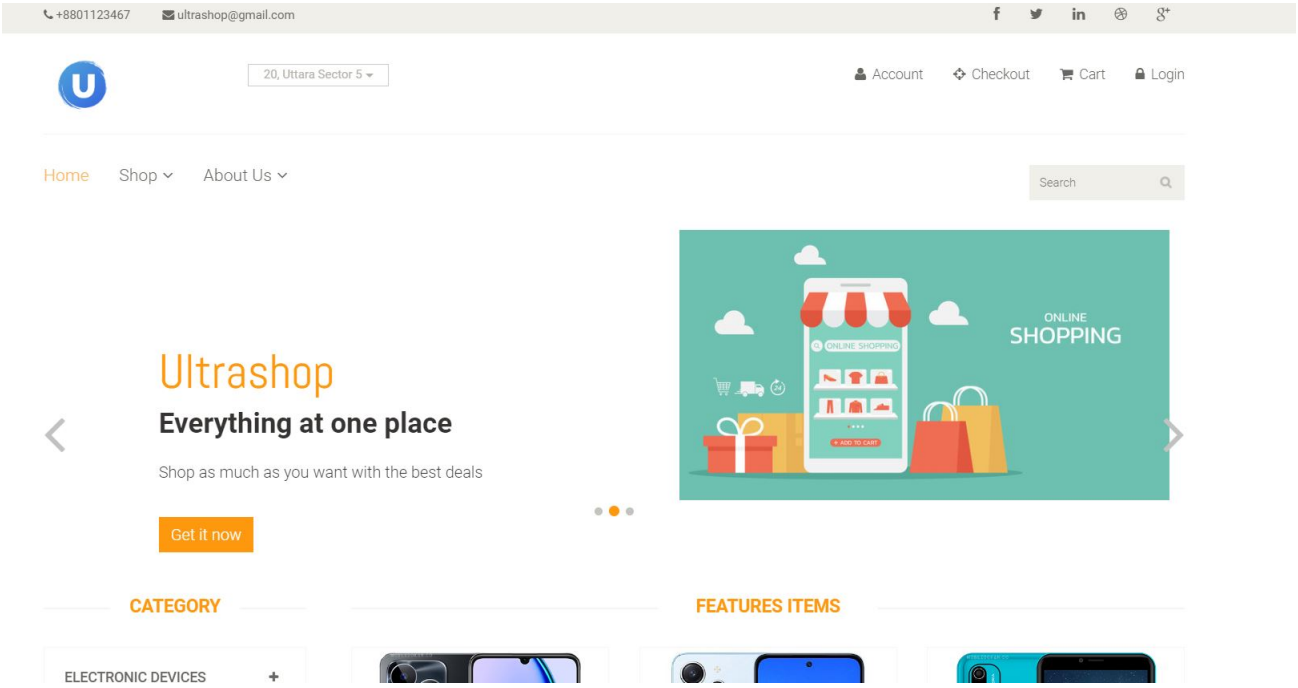


Figure 5.9: Homepage

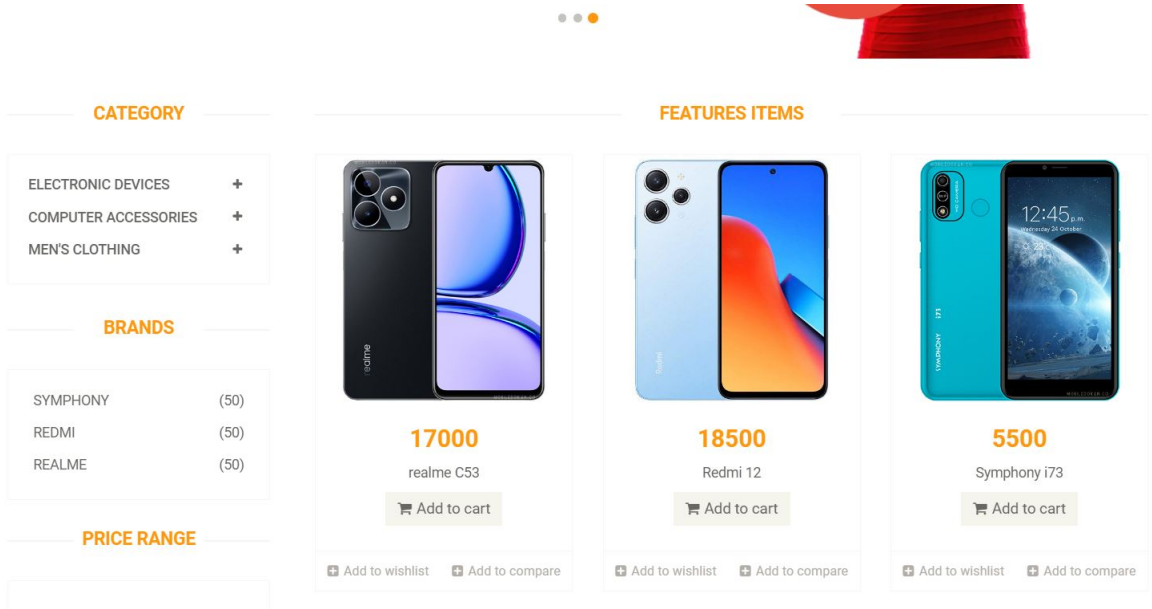


Figure 5.10: Homepage

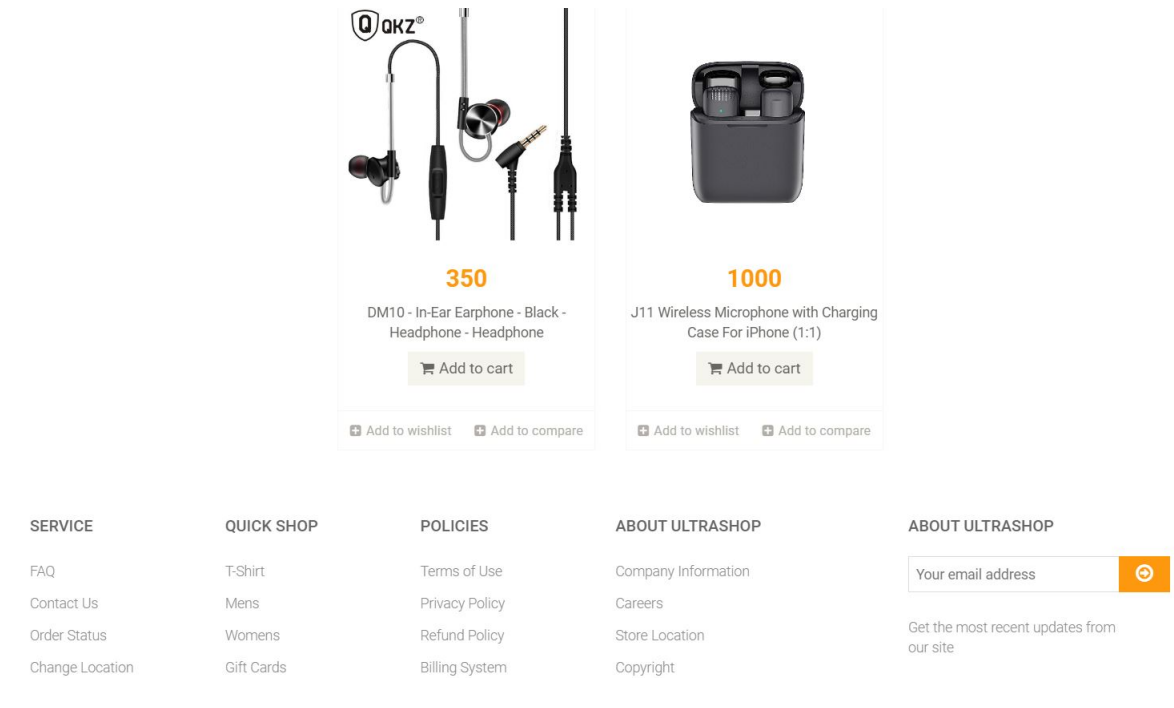


Figure 5.11: Homepage

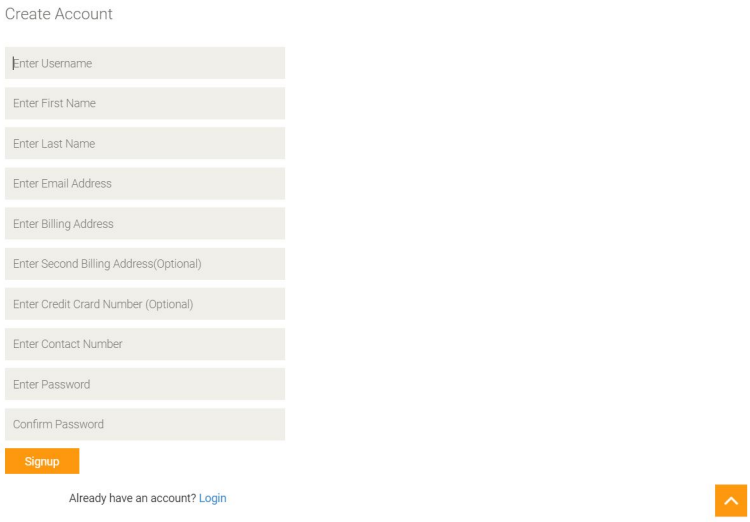


Figure 5.12: Signup Page

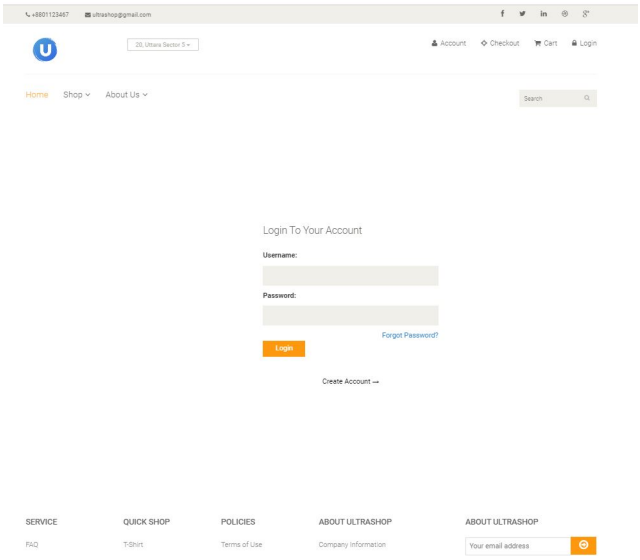


Figure 5.13: Login Page

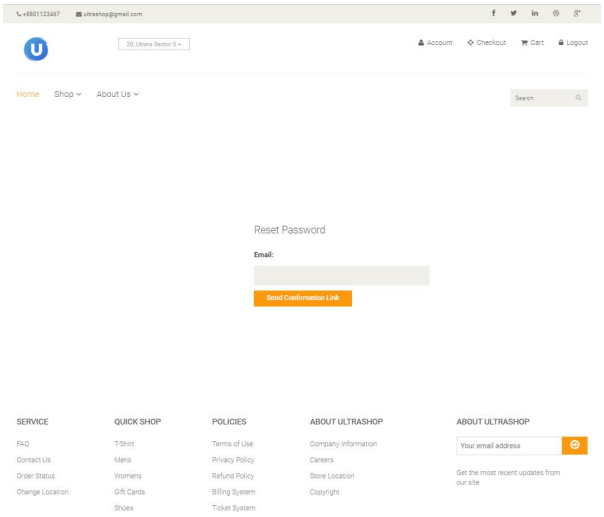


Figure 5.14: Password Reset Form

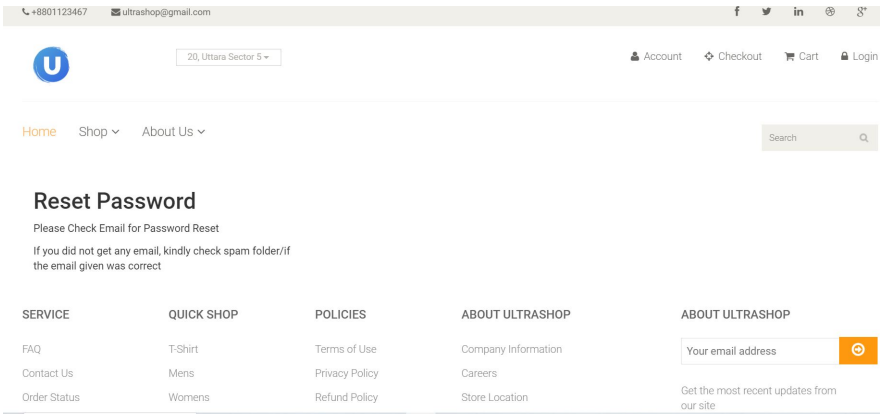


Figure 5.15: Password Reset Confirmation

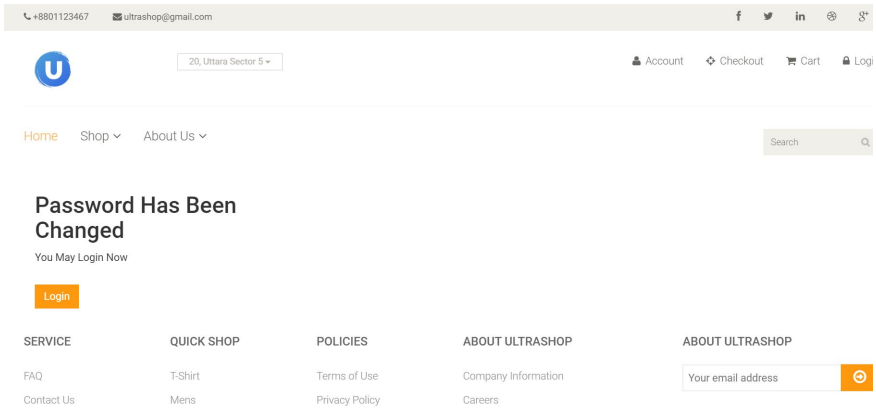


Figure 5.16: Password Reset Done

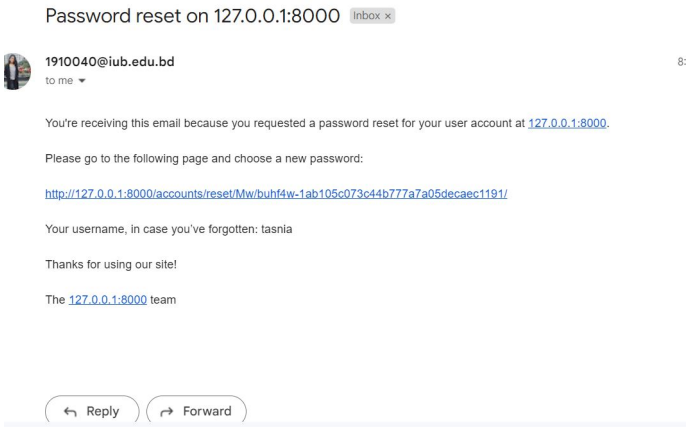


Figure 5.17: Password Reset Email

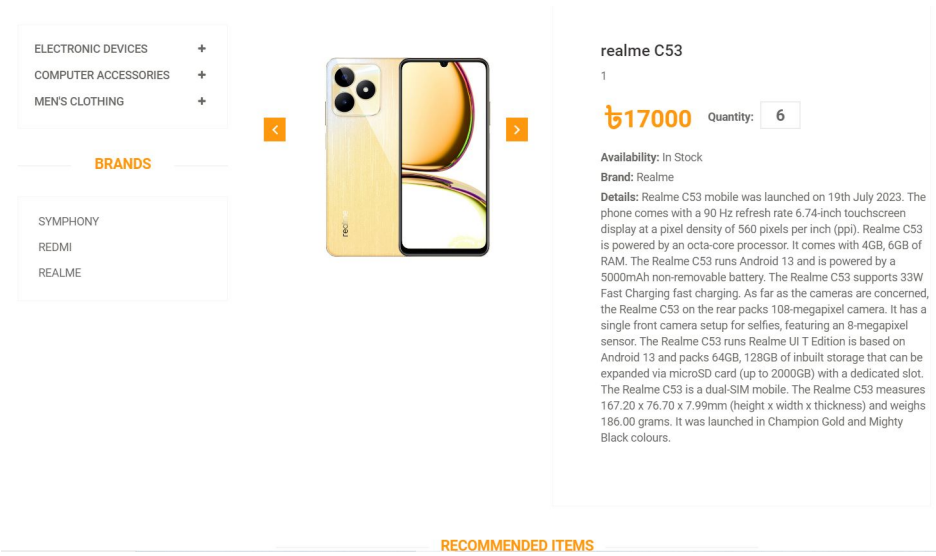


Figure 5.18: Product Details Page

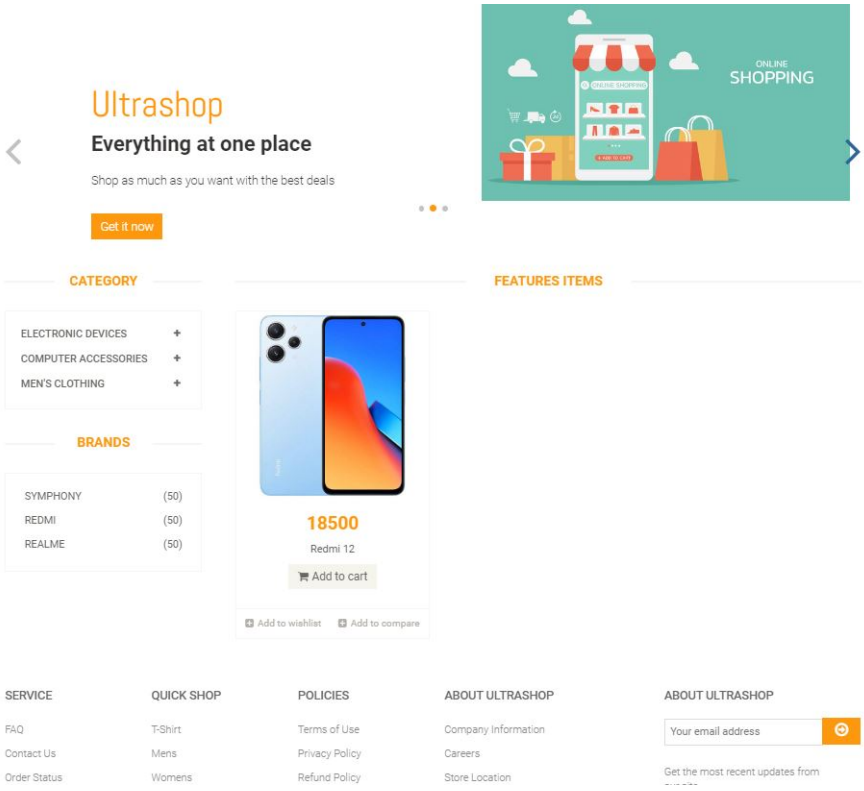


Figure 5.19: Filter Products by Brand

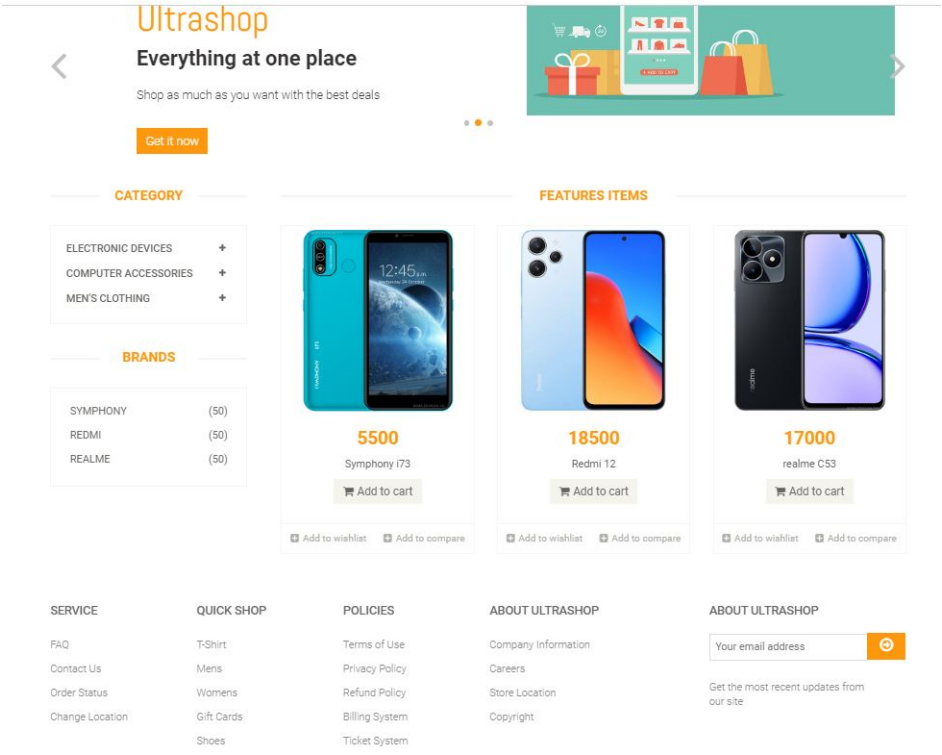


Figure 5.20: Filter Products by Category

5.5 Product Features

5.5.1 Testing - Input and Output

Testing is one of the most crucial phases required to develop a project e ectively. It is done to identify bugs and ensure quality.The test cases were designed by each functionality of the system. The functionalities were noted down and for each of them, the output and input were written down so that while testing, it can be easily veri ed if the test cases were working or not.The test took place by testing small fragments of the code. All the test cases were successful.
Input

Process	Field Data Type
Signup	Username, email, password, confirm password, last name, first name, billing address, credit card number
Login	Username, password
Reset Password	Email
Wishlist	Product details
Browse products	Product details
Filter products by brand	Brand name
Filter products by category	Category name
View details of product	Product details

Figure 5.21: Input for testing

Output

Process	Output
Signup	Users could successfully sign up.
Login	Users could successfully login IF the credentials provided were correct ELSE, login page will be as it is.
Reset Password	IF user provided the correct email,they would get a reset link which can be followed to reset password and they will get a "password reset done" message, and in the current page where they entered email, they will be shown a message to check email/provide correct email.. ELSE, no email will be provided.
Wishlist	Product details
Browse products	IF user has logged in successfully, they can view the list of products by the order of latest products first.ELSE, they would be shown the basic page.
Filter products by brand	When users click on a brand name, it will load the page with the products from that brand only.
Filter products by category	When users click on a category, it will load the page with the products from that category only.
View details of product	Product details with description,quantity will be shown to the customers with more than 1 product image if available.

Figure 5.22: Output for testing

5.5.2 Architecture

Microservices architecture has been followed so that each of the segments can be independently handled. Nowadays, microservice architecture is being used in many projects. It ensures exibility and scalability of the project.The front-end of the website uses various languages such as HTML, CSS, JavaScript while the back-end has been implemented using django, python and SQLite as the database server.

Chapter 6

Results & Analysis

Usually, at ADN Diginet Limited, the projects go through a quality assurance team to ensure the quality of the project and then, the testing team to test for any bugs and errors.Before releasing the product, the technical team works relentlessly as well to nd any errors and to ensure that the project is working e ciently.
As I was a data analyst trainee, I had to self test the project and after I was done, my trainer tested the code. This is a project that would be customized per the customer, currently it is generic. The results were positive since the test cases were working well. The code was also reviewed by the trainer and any changes required were made.

Chapter 7

Project as Engineering Problem Analysis

7.1 Sustainability of the Project/Work

A sustainable project is that which is working e ciently and meeting the requirements.

- Security of Data
  It is important to ensure the security of the information provided by the user. Passwords need to be encrypted, payments need to be secure as well. In conclusion, strong security measures should be implemented to maintain the privacy of the users.

- Code Quality
  The technical team considers enhancing the quality of code so that it is readable to any newcomers. Moreover, if the quality of code is maintained, it also helps in identifying errors faster.

- Documentation
  To make sure that the project is understandable to any team which might be working on it, documentation is important. It helps the developers to understand the phases of the project and helps in enhancing the quality of work.

- Usability
  The company has various features in mind to make the user experience better. Virtual trial systems are to be introduced in future so that customers do not have to worry about what would suit them anymore. They can just upload a picture and it would give them an image of them wearing the product. This would be implemented by the ML team. Moreover, live streams would be introduced so that companies can broadcast their products on the website directly. The company also plans to have an option for Bangla language to make it easier for users who are uent in Bangla.

- Evaluation
  Each of the features of the project is to be tested so that there are no bugs. It is important

to evaluate the code thoroughly before deploying the project so that the errors can be dealt with earlier. Also, it would not hamper user experience as well.

- Accessibility
  The project would have more than one currency options for payment in future so that international customers can also use the website. The company also plans to implement sentiment analysis to propose business solutions for the client. It would help them understand when and why a product might not be desirable anymore and also help to acquire and retain customers.

7.2 Social and Environmental Effects and Analysis

- Time Saving
  Since customers can do online transactions, it would save their time as they do not have to visit the physical store. It would consume a signi cant amount of time to browse through products, nd brands that the customers desire but now they can just do it online which again saves time.

- Cost Saving
  The website would o er various discounts throughout the year which would eventually reduce the expense of the customers. Moreover, since they do not have to commute to the physical stores anymore, it also saves money. As for the company, once the new features are implemented, they can take a glance at the report from sentiment analysis and make better decisions. They also do not have to hire additional salesmen as the customers would make online purchases a lot

- Accessibility
  Since the website is accessible to anyone, now customers with mobility challenges or those who live in distant places have access to the services.

- Job Opportunities
  Since e-commerce websites need to manage customers 24/7 it opens the possibility of hiring more customer care executives, delivery men, etc. Hence, there would be many job opportunities available.

- Greenhouse Emissions
  Since customers can virtually buy products from the website and do not need to travel to the store, it reduces the greenhouse emissions from vehicles.

7.3 Addressing Ethics and Ethical Issues

- Privacy and Security of Data
  The e-commerce website handles user transactions every day which leads to the concern of maintaining the privacy of customers as it contains sensitive information and online transactions need to be secure. Protecting the information of the customers is one of the most important responsibilities of an e-commerce business. E ective security measures has to be implemented to maintain the privacy and security of customers.

- Authenticity of Information
  It is important to provide accurate information on the website about the products and services.

- Integrity of Website
  The website should be able to identify fake customer information to ensure the integrity of the website.

- Pricing
  Products should be priced fairly to retain customers. It is unethical to price the products unfairly. Moreover, the same price should be shown to all customers.

- Using Customer Data
  Ensuring to use customer data fairly is important. Consent should be taken as well for the sentiment analysis if it is introduced. Protecting customer data should be one of the main priorities.

- Interactive User Interface
  User interface should not consider complicated designs which might mislead the users. It should be as user friendly as possible. The content should be easily understandable as well.

Chapter 8

Lesson Learned

8.1 Problems Faced During this Period

- Limitations in Knowledge
  Before joining ADN Diginet Limited as an intern, I had a basic idea about data science and data analytics. I had never used tools like powerBI or libraries such as BeautifulSoup. During the internship period, I was taught the fundamentals of data science and learned the vastness of the eld. I also had to use github a lot for every task which required me to have a proper understanding of the git commands.

- Lack of Experience
  I had no experience in data analytics which made it di cult to understand the requirements of the projects related to data analytics. Also, since I had never used Microsoft powerBI, it was hard to get the concept initially and understand how DAX(Data Analytics Expressions) worked. Web Scraping was also a challenge as it involves inspecting the websites thoroughly.

- Handling multiple projects
  As I was a data analyst intern but I had also been in the backend team for this project, at times, it was hard to complete all the tasks assigned to me. Throughout the internship period, I was involved in various projects, in various roles. In some projects, I was taking requirements from clients, in other projects, I was assigned to lead a team to design a prototype for a client and also prepare powerpoint slides and document the requirements, etc. Since it was my rst time working in the industry, at times it was overwhelming to be involved in so many projects at once.

8.2 Solution of those Problems

- To understand the fundamentals of data science, it was important to self study a lot. So I started researching more about the topic and learned about various tools and techniques used in data science. I communicated with my trainer often whenever I had any queries or to show my task and get his feedback. I read some documentation, and watched videos from Youtube to learn more about Microsoft powerBI and its uses and bene ts. For backend development, I read django documentation thoroughly to understand the framework better. This helped me in completing all the assigned tasks to me in due time. My trainer also helped me by showing a live demonstration of Git commands and also powerBI.
- I was assigned multiple tasks related to data analytics which helped me grasp the concept better and although I was not experienced at that time, it took me little time to do the tasks e ciently. My coworkers also helped me in solving the problems faced during the tasks.
- To make sure that I was meeting the deadlines for each project, I made a planner where I planned how long I should work on a speci c task and also I prioritized the most important projects rst. This helped me in completing the tasks I was assigned to within due time. I also communicated with my trainer to know which projects were the most important and needed to be completed sooner. Additionally, everytime I documented the requirements, I sent it to my trainer for approval and made any changes required as per his feedback.

Chapter 9

Future Work & Conclusion

9.1 Future Works

The current website is purposely made to be generic so that the same kind of projects do not have to be coded from scratch. As per the client's requirements, more features could be added or some current feature could be removed. However, the company does have some plans for this project. They want to introduce a virtual trial system for clothings so that customers can now see if they really like the product they want to buy and not be disappointed later on. It is also planned to make this website also suggest business solutions based on the sentiment analysis done by learning the customer interactions. A live streaming option would be available which can be used to directly broadcast live from the website. Recommendations based on the past purchases of the customers are to be introduced as well. All these would be implemented by the machine learning team. The company also plans to have a wholesale rate system for customers who would be buying products at bulk.

9.2 Conclusion

In conclusion, my time as an intern has been an excellent opportunity to learn and will bene t my career tremendously. I had the opportunity to map my academic knowledge into industry projects and this has helped me in enhancing my technical skills. By being involved in various projects, I have improved my technical skills as well as my soft skills.

The internship has provided me with the opportunity to work with highly experienced professionals and to gain the knowledge that they have provided. Most of the projects required me to work in a team which impacted greatly to improve my communication skills. Since opportunities in the data science eld are increasing nowadays, I believe that this learning experience will help me immensely in future. Moreover, as I had to interact with many professionals, I could build up networking which would help me in my career path as it is important to have a professional network. This could help me in future collaborations.

Overall, I would like to say that I had an incredible experience by joining this internship program. It has been a pathway for me to take the rst steps toward my professional career. I am grateful for the experiences and opportunities the internship has provided for me. I am eager to use the knowledge and experience I have acquired during my time as an intern in my future endeavors.

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An Undergraduate Internship-Project on Ultrashop, E commerce

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