Independent University, Bangladesh

Department of Computer Science and Engineering

Internship report on

Ghuri – Ecommerce Platform

at

IT Bangla Ltd

Submitted by:

Tanvir Ahmed Khan

ID: 1821595

Submitted to:

Romasa Qasim, Lecturer

Department of Computer Science and Engineering

Submission Date: 12th May, 2022

Semester: Spring 2022

Attestation

I, Tanvir Ahmed Khan, officially attest that no work in this report has been plagiarized or duplicated from another source. Any resources consulted are referenced in the report's reference section. No assistance from a third-party organization was requested during the report's completion, except for the one for which I interned which is IT Bangla Ltd for the last three months. For further information, please contact Engr. Md Zahidur Rahman, the internship supervisor at my firm, It Bangla Ltd, at 017115326647.

Sincerely,

Tanvir Ahmed Khan

Sincerely,

_____ _____

Signature Date

_____

Name

Acknowledgement

To begin, I would want to express my gratitude to Allah for endowing me with the perseverance and ability to perform hard, for keeping me safe throughout this pandemic, and for providing me with the opportunity to complete my internship at It Bangla Ltd. Additionally, I would like to thank my parents for their unconditional love and support, which have nourished, fostered, and prepared me for this task. I would like to express my gratitude to Ms. Romasa Qasim, Internship Supervisor & Lecturer, Independent University, Bangladesh, for her invaluable guidance, patience, time, and thoughtful advice regarding various aspects of my internship and the preparation of this report. It has been an incredible experience working as an intern at It Bangla Ltd. I would like to show my thanks to the firm for providing me with the opportunity to work from home and for making the transition from student to an application developer considerably simpler during this COVID-19 pandemic. Additionally, I would like to thank my external supervisor, Mr. Md Zahidur Rahman, for accepting me as an intern for It Bangla Ltd and integrating me into the organization. Finally, I would want to express my heartfelt appreciation to Independent University, Bangladesh for offering a student internship program that truly shapes and prepares us for the corporate world.

Tanvir Ahmed Khan

1821585

April 2022

Dhaka, Bangladesh

Letter of Transmittal

12th May, 2022

Romasa Qasim

Internship Supervisor & Lecturer

Department of Computer Science and Engineering

Independent University, Bangladesh

Subject: Internship report on ‘Ghuri-Ecommerce Platform’, a product for It Bangla Ltd.

Dear Ma’am,

I am extremely grateful for the chance to submit an internship report to you on 'Ghuri – Ecommerce Site,' a web application developed for It Bangla Ltd. This report is based on my three-month internship at the firm and the project on which I worked. This report is based on my experiences and the work I completed during my internship at It Bangla Ltd. Throughout my internship with the organization, I discovered that I acquired and used a variety of new skills and technology. I would be delighted if the report I have written serves its intended purpose. I am indebted to you for your time, knowledge, direction, and support. I have attempted to complete the report as accurately as feasible. I genuinely hope and pray that you will accept the report.

Thank you for your co-operation and assistance throughout the semester

Yours sincerely,

Tanvir Ahmed Khan

ID: 1821595

Evaluation Committee

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Signature

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Name

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Supervisor

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Internal Examiner

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External Examiner

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Convener

Abstract

Ghuri is a web-based application that eliminated the need for users to physically visit to shopping mall to purchase products. The program was created to make the procedure of purchasing products through a website. The website will allow the customer to view and select different size of the products to order. After selecting a product application will send it to the cart. Meanwhile it will update the database for the cart section for that particular user that an item has been added into the cart table. From the database that item will be fetched and show it in the cart. User can checkout from the system or can continue shopping to add more items into the cart.

Table of Contents

Chapter 1: Introduction

1.1 Overview background of the work

It Bangla Ltd act as a representative for well-known IT company. They serve as a conduct for software delivery as web or mobile application based on the interest of the other school, college or company. Previously, It Bangla Ltd was a testing center and used to provide a committed venture of IT services, by a team of dedicated professionals having distinct experience in technical, management & functional domain. Now, it is a fully functional IT company and known for developing web and mobile-based application.

Ghuri is a web based application project that has been given by the ghuri ltd to It Bangla Ltd. They previously had a outdated website www.ghuri.ltd which has been under newly functional development. As an intern I was chosen for this task to complete the project with the other member of the It Bangla development team. Ghuri is a E-commerce platform. It started its operation in 2020. They have been delivering multiple services. They have more than 100 sellers and 50 brands. They been conducting their business for 3 years with trust and honesty. They are very much conscious about time management that mean they deliver product as soon as possible.

1.2 Objectives

- Allow customers to purchase through the website.
- Provide customers fine quality product.
- Provide the customers with an opportunity to pay the fee online.
- The package will be collected from the store on the same day that it was requested.
- Provide customer support to answer all the queries.

1.3 Scopes

- Login Page – This page will be used by registered users to log into their account.
- Registration Page – This page will be used by new users to register their account.
- Forget Password Page – Users will be redirected to this page to enter their email if they forget their password and wishes to change their password.
- OTP Page – One Time Password will be sent to the email given by the user in the forget password page. The user will have to enter the OTP to able to change their password.
- Change Password Page – This page will allow the user to change their password if they forget their old password.
- Dashboard – There will be Dashboard for two different type of users – Employee and Admin.
- Product Page – Customer will visit this page to select an item.
- Product Details Page – Customer will visit this page to add to cart an item.
- User Profile – User can view their profile email and designation – Employee.
- Contact Us Page – Customer will be able to contact support team through website.
- About Us Page – Customer will be able to see the information about the company.

Chapter 2: Literature review

2.1 Relationship with undergraduate studies

The HTML, CSS, PHP and Javascript was used extensively in the development of the system. The front-end was built with HTML, while the backend was written with PHP to connect with the database. The topics covered in the Web application course is directly related to the application's backend. Since the Web Development course was project-based, and numerous web-based projects was completed as part of it, the topics covered in that course was very helpful in this project. Apart from project development, the mockup of the application and the relevant diagrams was required, as taught in the System Analysis and Design course.

2.2 Related Works

Several studies have been done on the topic of Ecommerce management system.

The following are some of the related works:

1. Amazon.com, Inc. is an American multinational technology company which focuses on e-commerce, cloud computing, digital streaming, and artificial intelligence. It has been referred to as "one of the most influential economic and cultural forces in the world", and is one of the world's most valuable brands.
2. eBay Inc. is an American multinational e-commerce company based in San Jose, California, that facilitates consumer-to-consumer and business-to-consumer sales through its website. eBay was founded by Pierre Omidyar in 1995, and became a notable success story of the dot-com bubble.
3. AliExpress is an online retail service based in China and owned by the Alibaba Group. Launched in 2010, it is made up of small businesses in China and other locations, such as Singapore, that offer products to international online buyers.

All the functions are similar as those performed by the ecommerce website listed above, with the exception that our website is additionally designed to assist the administration panel and employees in conducting their regular work efficiently.

Chapter 3: Project Management and Financing

3.1 Work Breakdown Structure

Work breakdown structure (WBS) is a method for completing a complex, multi-step project. It is a method of dividing and conquering large projects in order to complete them more quickly and efficiently. A work breakdown structure (WBS) is intended to make a large project more manageable. Breaking it down into smaller chunks allows different team members to work on it simultaneously, resulting in higher team productivity and easier project management.

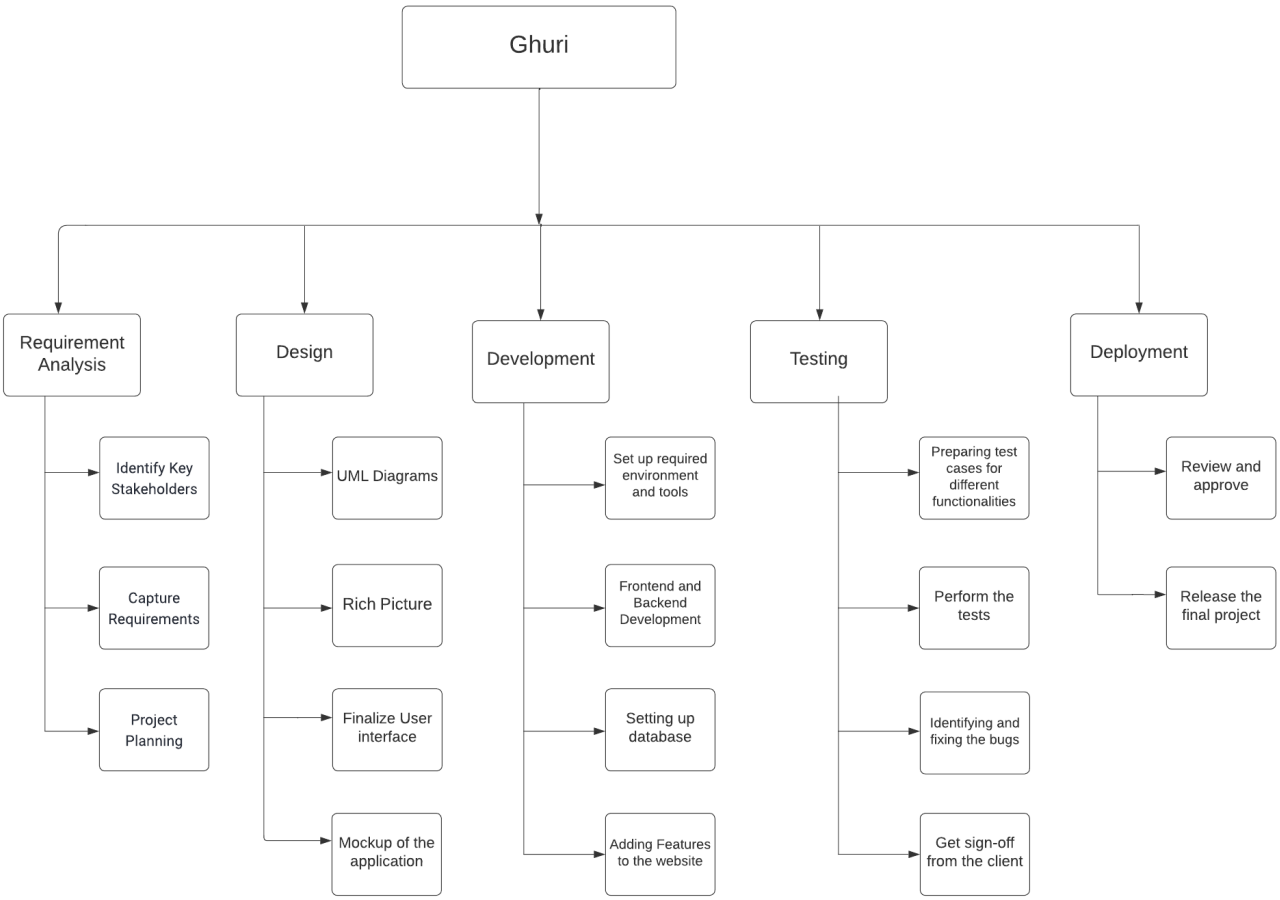

Figure-3.1: Work Breakdown Structure

3.2 Process/Activity wise Time Distribution

The time allocation for the three months project is as shown in the table. Any activity can be performed simultaneously with other activity or after the earlier one is completed.

Activity	**Days**	**% of work**
Requirement Analysis	10	10
Design	10	10
Development	60	60
Testing	10	10
Deployment	10	10
Total	100	100

Table-3.1: Activity Wise Time Distribution

3.3 Gantt Chart

A Gantt chart is one of the most popular and useful methods of displaying activities (tasks or events) against time. A list of the activities is shown on the left side of the chart, and a time scale is shown along the top. Each activity is represented by a bar, with the position and length of the bar reflecting the activity's start, duration, and end dates.

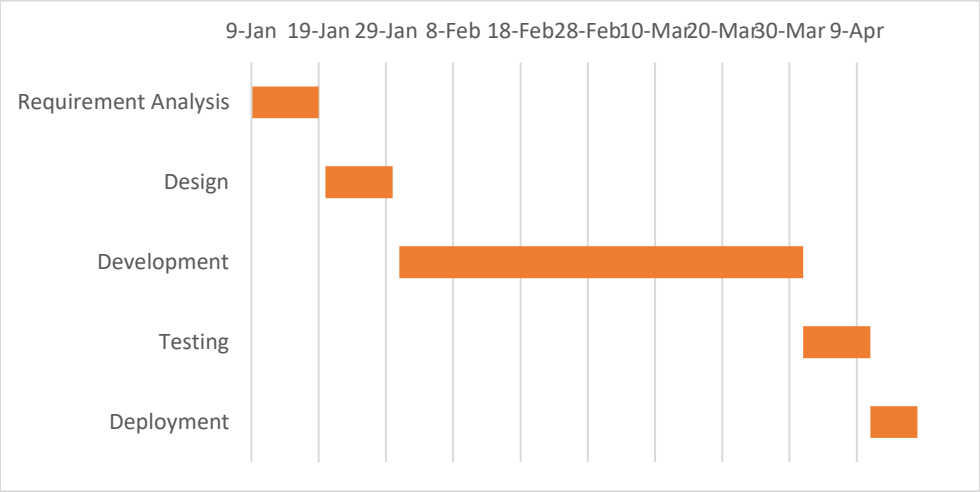

Figure-3.2: Gantt Chart

3.4 Process/Resource wise Resource Allocation

Requirement analysis: In order to complete this project, I was the sole one tasked to collect the requirements. The requirements were how the client wanted the website to look. With the requirements gathered, project planning took place with the stakeholders, and it was decided how the website would look once completed.

Design: The website design is created during this phase to give developers an idea of how the application will look in real-time. I have been working on diagrams like Rich Picture and UML Diagrams. I made a mockup to finalize the design of the actual application before beginning the development phase. This phase entails designing the application's features and functionality using necessary diagrams and mockups.

Development: The development phase is primarily concerned with the creation of the application. It was required for me to submit a weekly project progress report. Every weekend, a meeting was held virtually with key stakeholders of the company to discuss progress and future project planning.

Testing: During this phase, the website was tested at the same time as it was being developed. It was required for me to debug at every stage of the development process when the application was being tested. The final step in this phase was to show the client the final website and obtain his approval before the phase's deadline.

Deployment: As the website is almost ready and the beta version is released, it will be deployed before the deadline.

3.5 Estimated Costing

The cost is an estimate based on the company's requirements for the web application system.

Requirements	Costing
Salary	5000
Domain and Hosting	3000
Database	2000

Table-3.2: Estimate Costing of the Project

Chapter 4: Methodology

The Waterfall method is a traditional approach to project management. In it, tasks and phases are completed in a linear, sequential manner, and each stage of the project must be completed before the next begins.

The stages of Waterfall project management generally follow this sequence:

- Requirements Analysis
- Design
- Construction
- Testing
- Deployment

Progress, like an actual waterfall, flows in only one direction.

However, just like a real waterfall, this can quickly become dangerous. Because everything is planned out at the start, there is a lot of room for error if expectations do not match reality. And once it's finished, there's no going back to a previous stage.

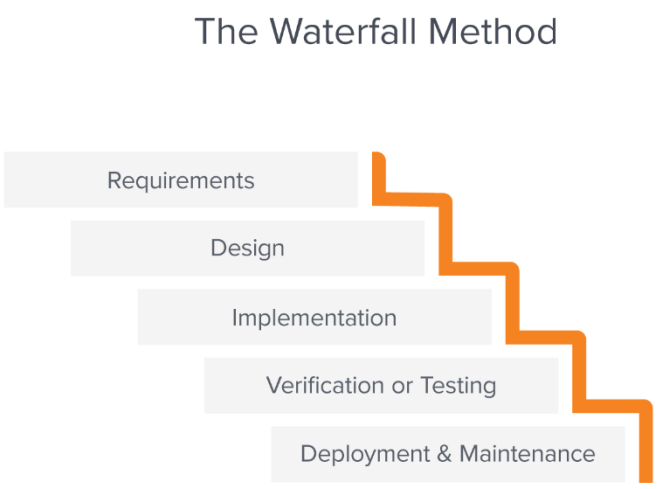

Figure-4.1: Waterfall Methodology

4.1 Why this methodology for this project?

The Waterfall methodology is used for this project because the requirements are clearly defined and easy to understand. The client had defined the scope and end-goal of our project were from the start, and this did not change. I had to proceed sequentially with each phase using this methodology. Furthermore, using waterfall methodology specifies what we are building at a very detailed level, which helped me meet deadlines. Since I did not have to consult with stakeholders repeatedly to determine the product requirements, I was able to focus more on writing code and test cases.

4.2 How did we use this methodology?

As soon as I began working on the project, I conducted a requirement analysis. Then I moved on to the next phase, which was the design phase. I worked on creating a mockup of the website's user interface as well as some diagrams. Following the design phase, I moved on to project development. I worked on the Front-End and Backend coding of the application. During this development phase, I simultaneously performed the test cases of the project. The project's deployment was the final stage. The project's steps were completed linearly and sequentially, with each stage completed before the next begins.

Chapter 5: Body of the Project

5.1 Work Description

As a developer for this project, I was responsible for both the front end and back end of the website. Since the application was developed in Visual Studio, the front-end was created using HTML, CSS and the backend was written in PHP. PhpMyAdmin was utilized to store the data for the entire project. All tasks were performed within a certain time frame, and after a task or portion of the project was completed, we were required to explain our work to the project's supervisor.

5.2 System Analysis

5.2.1 Six Element Analysis

Process	Human	Non-Hardware	Computing Hardware	Software	Database	Communication on Network
Register	Customer, Admin, Employee	N/A	Phone, Laptop, Personal Computer	Website	PhpMyAdmin	Internet
Login	Customer, Admin, Employee	N/A	Phone, Laptop, Personal Computer	Website	PhpMyAdmin	Internet
View Users	Admin	N/A	Phone, Laptop, Personal Computer	Website	PhpMyAdmin	Internet
View Orders	Employee, Admin	N/A	Phone, Laptop, Personal Computer	Website	PhpMyAdmin	Internet
View cart	Customer	N/A	Phone, Laptop, Personal Computer	Website	PhpMyAdmin	Internet
Update profile	Employee, Admin	N/A	Phone, Laptop, Personal Computer	Website	PhpMyAdmin	Internet

Table - 5.1: Six Element Analysis

View checkout	Employee and Admin	N/A	Phone, Laptop, Personal Computer	Website	PhpMyAdmin	Internet

5.2.2 Feasibility Analysis

A critical conclusion of the preliminary inquiry is the determination of the feasibility of the required system. A feasibility study is conducted to determine which system will best fulfill the performance requirements. A feasibility study is both required and sensible in order to determine the project's feasibility as soon as possible. It involves conducting an initial assessment of the project and determining whether the planned system will be beneficial to the organization.

- **Technical Feasibility**

Technical feasibility considers both hardware and software needs. To carry out this technical feasibility, we must first determine if the required technology and suggested equipment have the ability to keep the data utilized in the project. This technical feasibility analysis determines if the necessary resources and technology are available for project development. Along with this, the feasibility study examines the technical skills and capabilities of the technical team, if current technology can be used, whether maintenance and upgradation of the chosen technology is simple or difficult, and so on. Our system will be employed extensively with resources and personnel for system development.

- **Operational Feasibility**

The suggested system has an extremely friendly user interface. The user must have an adequate internet connection in order to use the program. The system will benefit the user due to its superior results and high performance. As a consequence, this idea is possible on a practical level.

- **Economic Feasibility**

Economic Feasibility is concerned with the economic impact that a new system will have on the organization if it is implemented. The financial gains must be equal to or greater than the expenses. It is necessary to estimate the cost of implementing a complete system, which includes software and hardware costs, for the type of application under consideration. By examining the

total application system, we discovered that it is feasible to undertake a comprehensive system analysis at a reasonable cost. There is no need for more labor in this situation. The suggested system has no additional costs associated with its upkeep and maintenance.

5.2.4 Effect and Constraint Analysis

A constraint is a limitation on a company's ability to provide a solution with as much flexibility as possible. Constraints are basically global needs, such as restricted development resources or a decision by top management that limits the development team's ability to construct a system. Economic, political, technological, and environmental constraints can affect project resources, schedules, target environments, and the system itself. The following are some of the limitations and their effects:

Constraint 1: Time

Effect: Initially, it appeared as though the project might be completed within a fair length of time. While the project's functionality was expanded, the time given for development was reduced due to extra work such as UI/UX design and mockups.

Constraint 2: Budget

Effect: As a result of the pandemic, the company's financial situation deteriorated, necessitating resource reallocation. Some of the project's personnel were transferred to other projects, and one additional intern was planned to be allocated to the project.

Constraint 3: Database

Effect: At the start of the project, it was decided that the data would be kept in PhpMyAdmin database.

5.3 System Design

5.3.1 Rich Picture

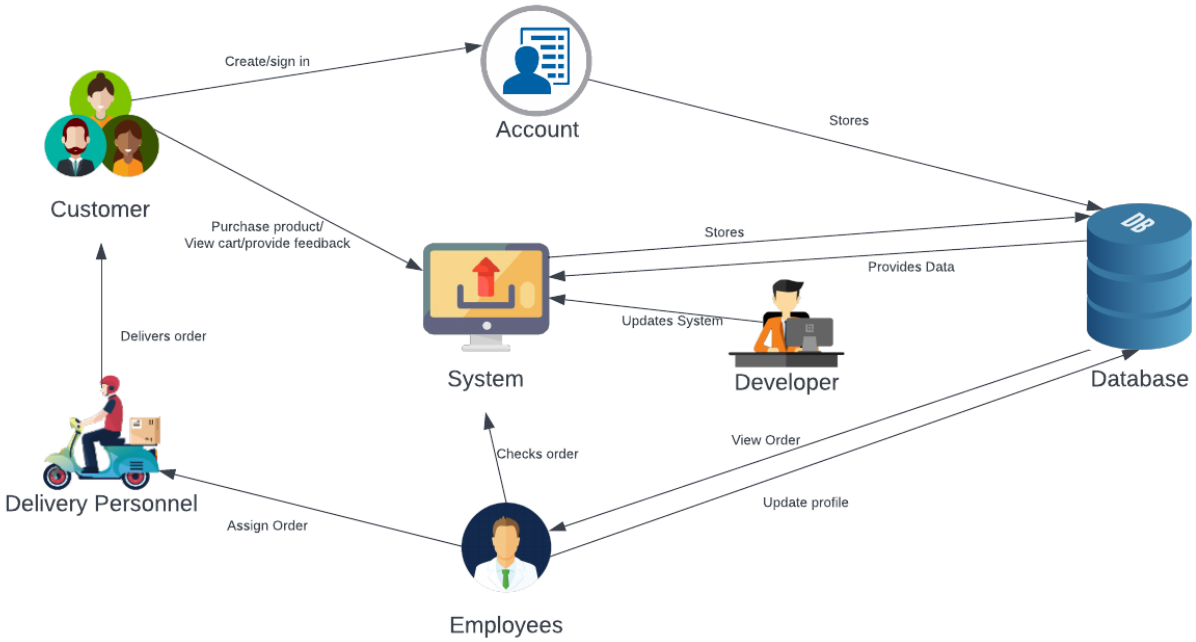

Figure-5.1: Rich Picture

5.3.2 UML Diagrams

Activity Diagram

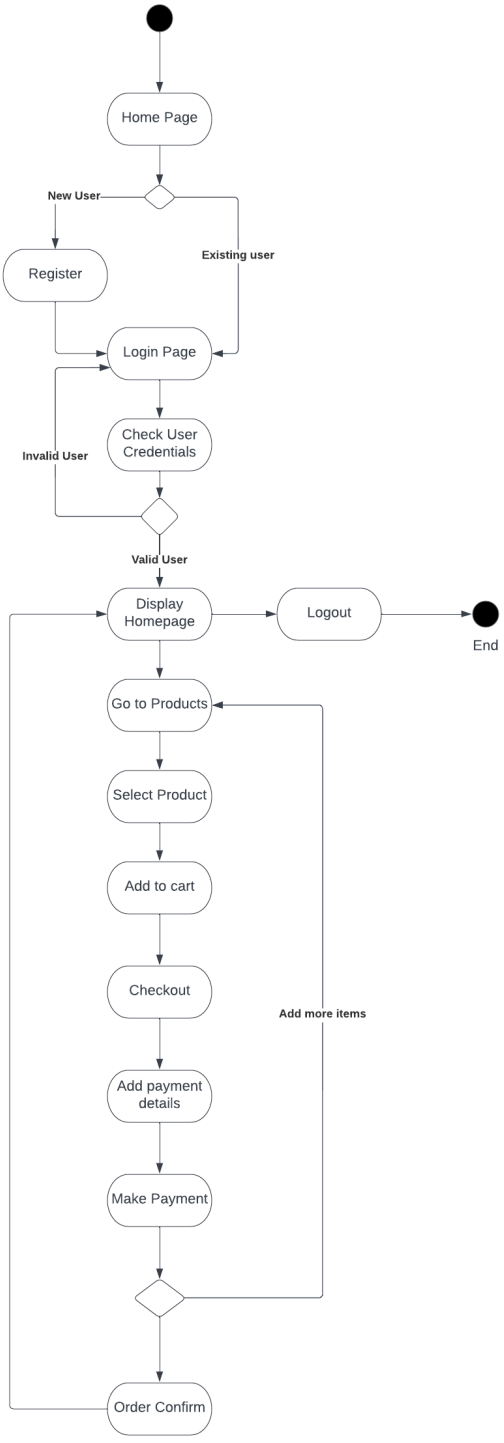

Figure-5.2: Activity Diagram for Customer

Class Diagram

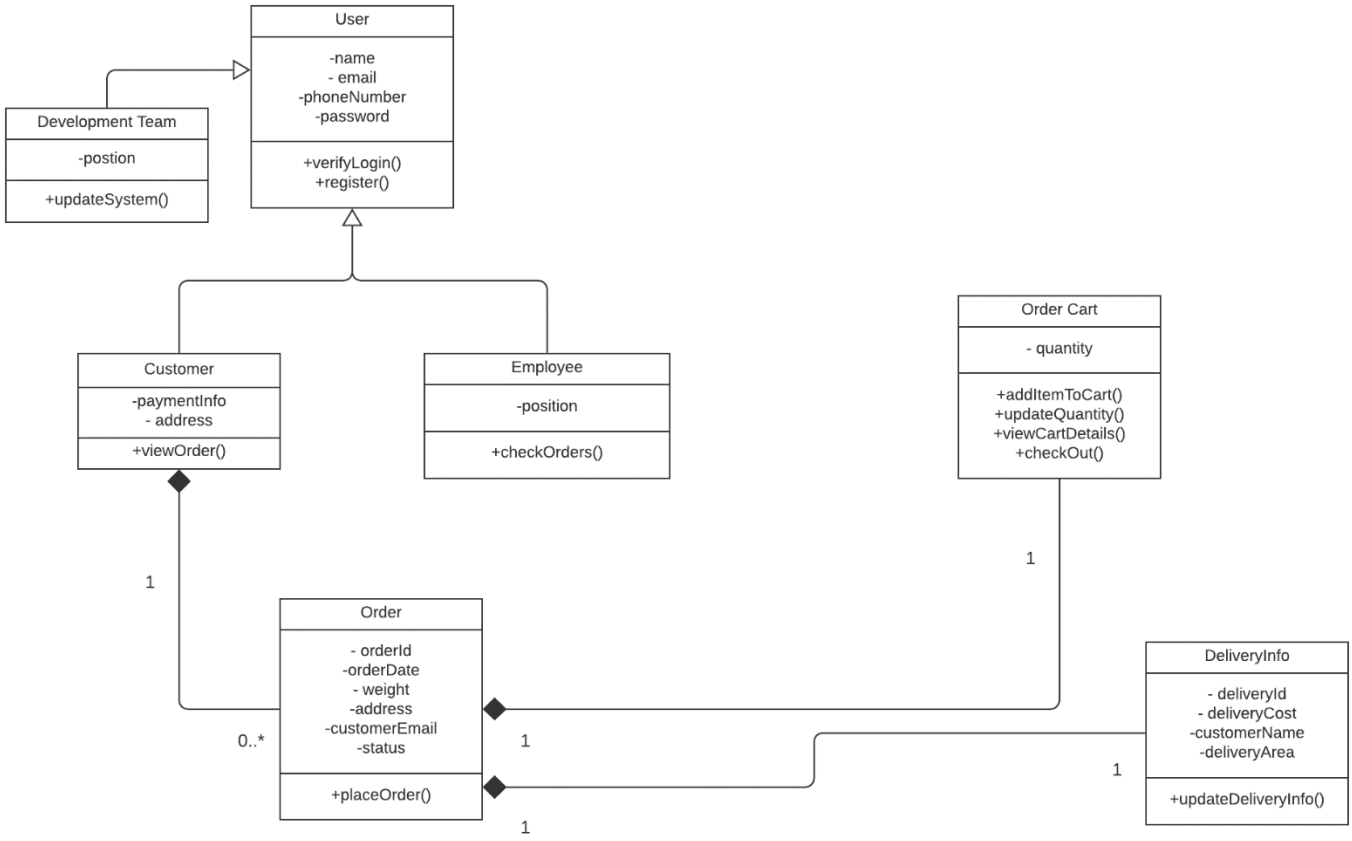

Figure-5.3: Class Diagram of the system

Use Case Diagram

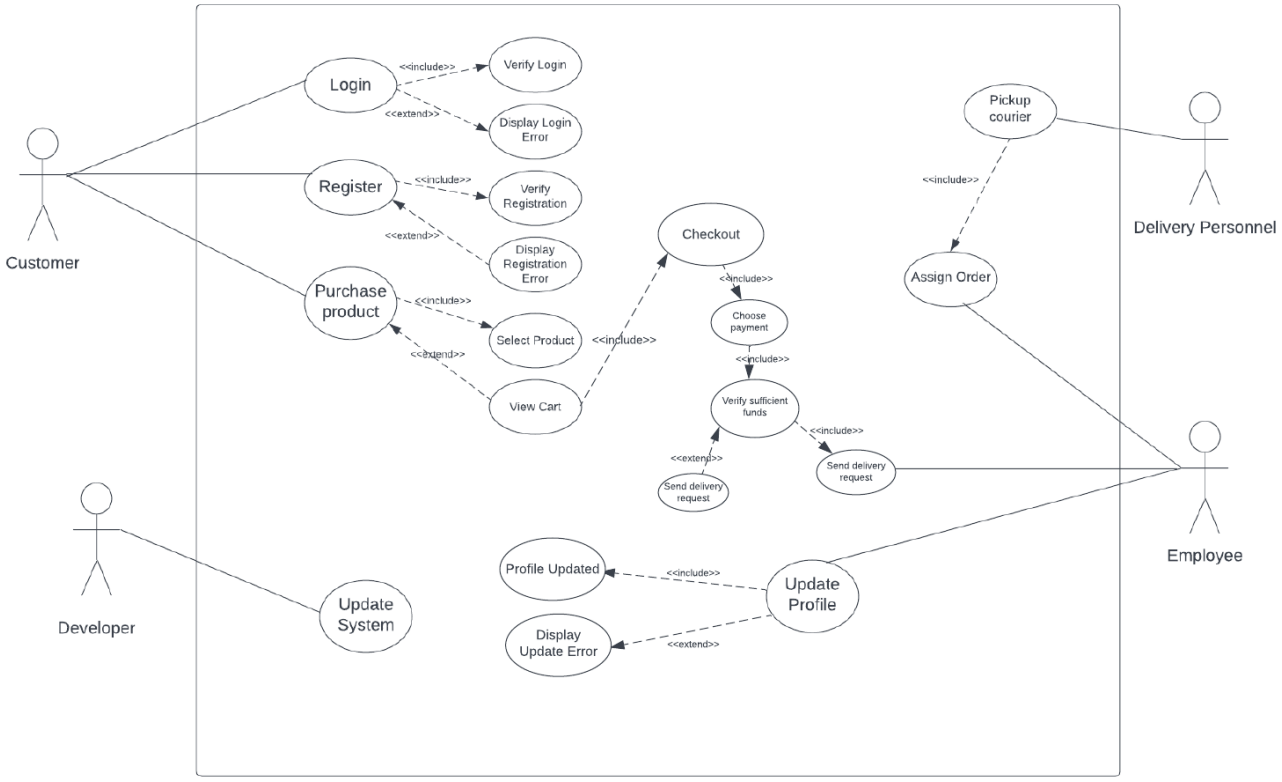

Figure-5.4: Use Case Diagram of the system

5.3.3 Functional and Non-Functional Requirements

Functional Requirements

1. **Register for an account**

   A user can register their account with all the required information.

2. **Update customer profile**

   A user can update their account with all the correct information.

3. **View items**

   A user can view items on the site.

4. **Select Size**

   A user can select different size of the product

5. **Add items**

   A user can add items into the cart

6. **Checkout**

   A user can checkout by providing card details and address for the delivery.

7. **Payment method**

   Customers will be able to pay using online methods as well as cash on delivery.

8. **Past orders**

   Customers will always have access to check the past orders.

9. **Contact support team**

   If the user is facing any difficulties or there is any complaint, then they can contact the support team.

Non-Functional Requirements:

1. **Performance**

   The load time of the pages of the application will be no more than 5 seconds if the users are accessing using bandwidth of minimum 500 Kbps or using 4G mobile data.

2. **Security and Control**

   User login credentials and payment related information will be secured using TLS (Transport Layer Security).

3. **Availability**

   Since multiples users will access the app for various tasks, the system stays active without any major downtime. In other words, the system will be online 24/7.

4. **Reliability**

   Any bugs that are detected in the system or reported by the user will be removed by the development team through update of the system.

5.4 Product Features

5.4.1 Input

Login

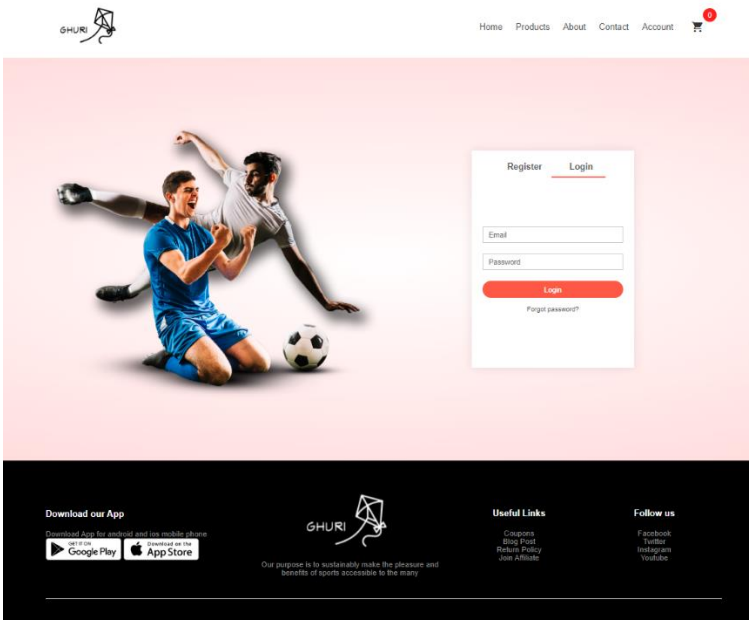

Figure-5.5: Login Page

Registration

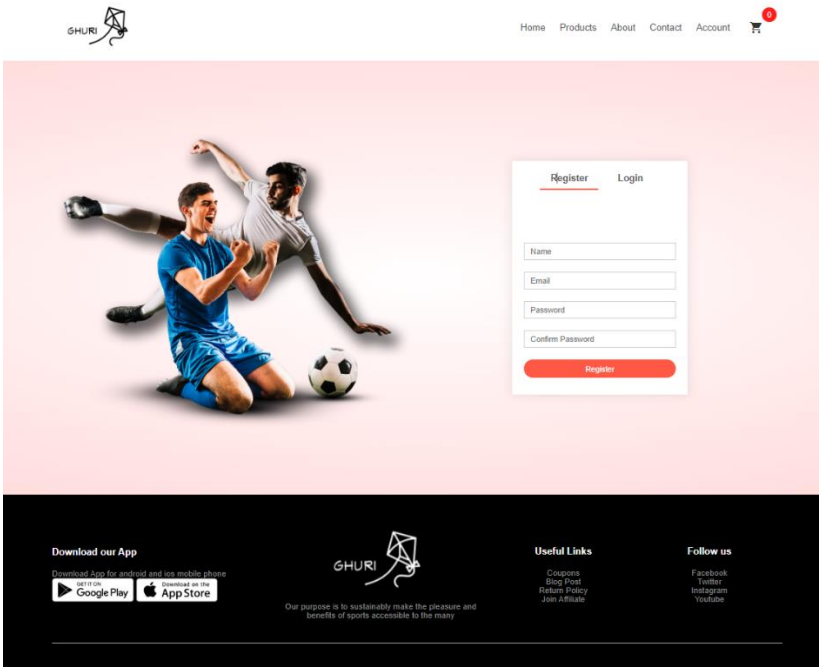

Figure-5.6: Registration Page

Reset Password

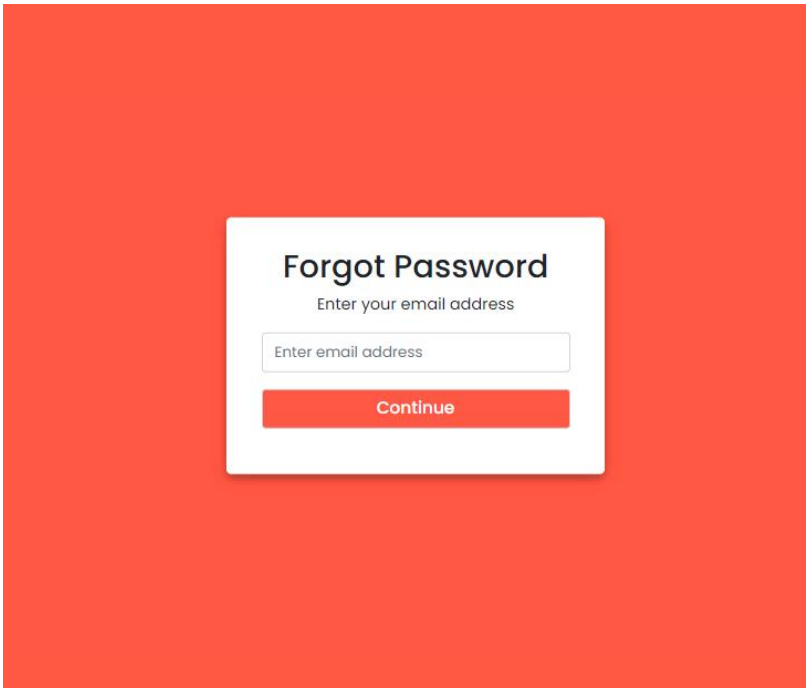

Figure-5.7: Reset Password Page

Code Verification

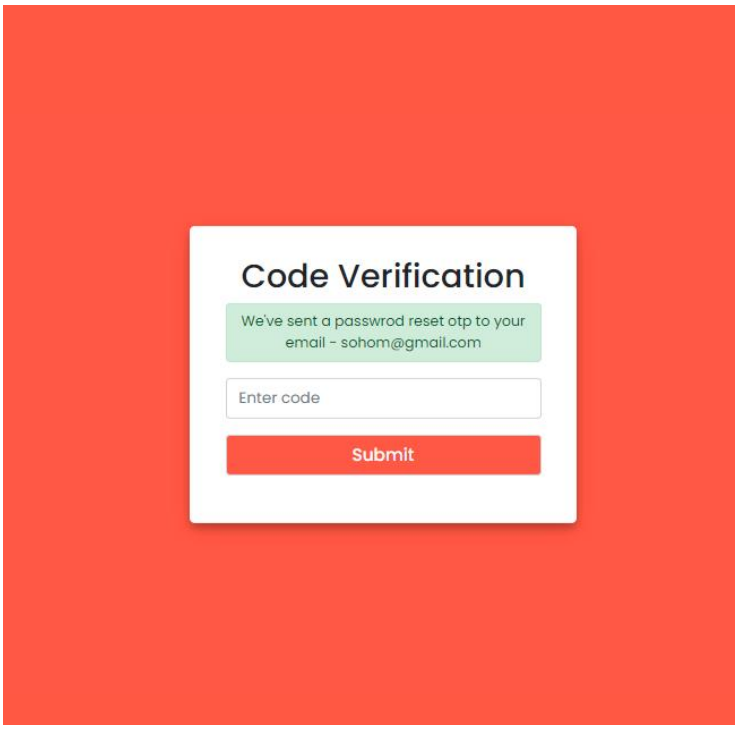

Figure-5.8: OTP Page

Change Password

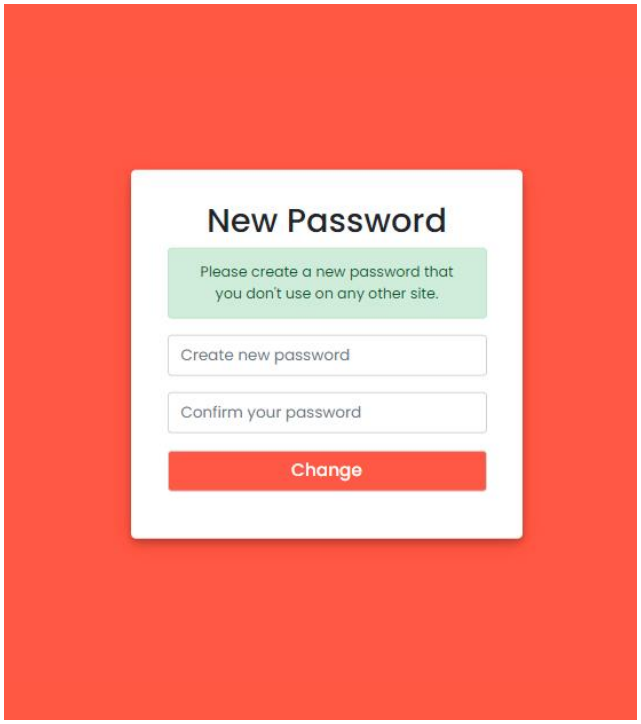

Figure-5.9: Set New Password

Employee Dashboard

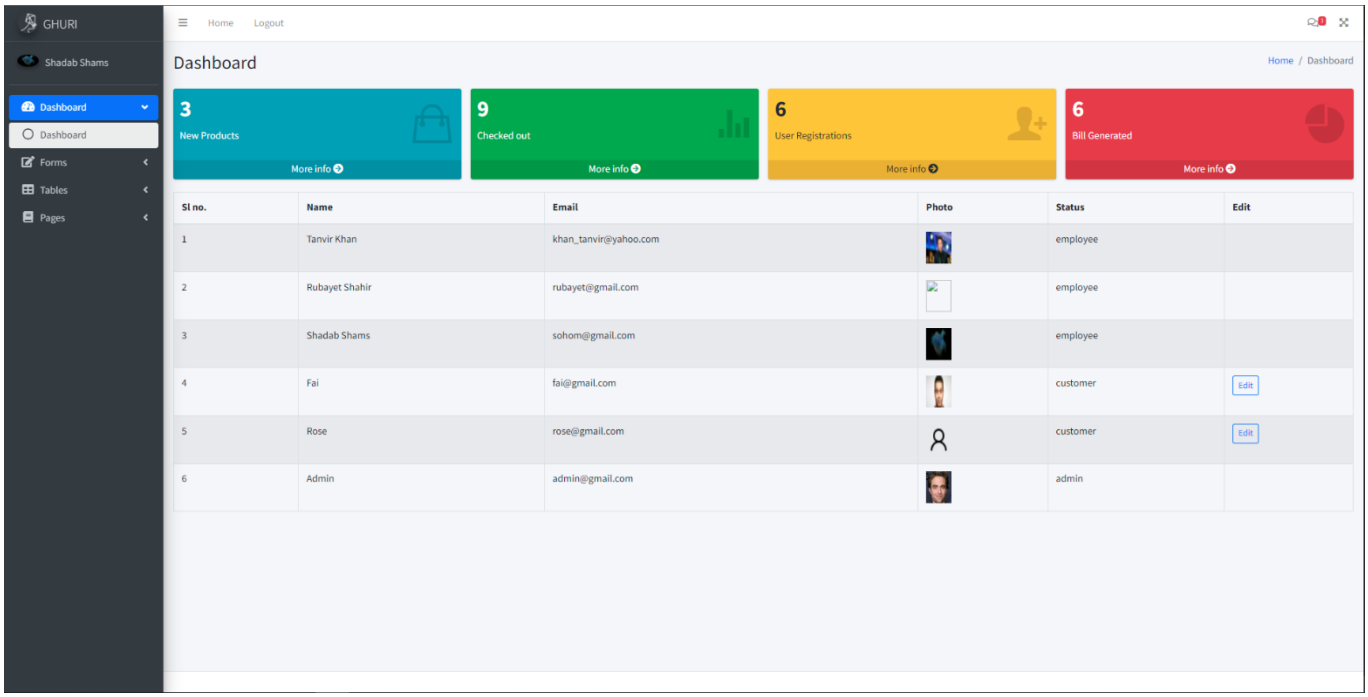

Figure-5.10: Employee Dashboard

Product Page (Customer)

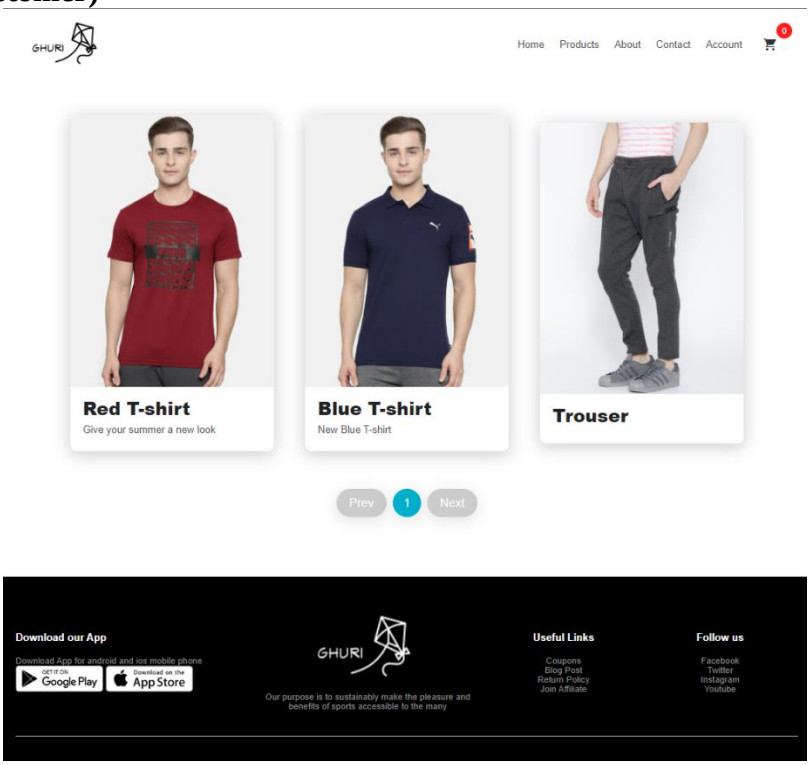

Figure-5.11: Product Page

Product Details

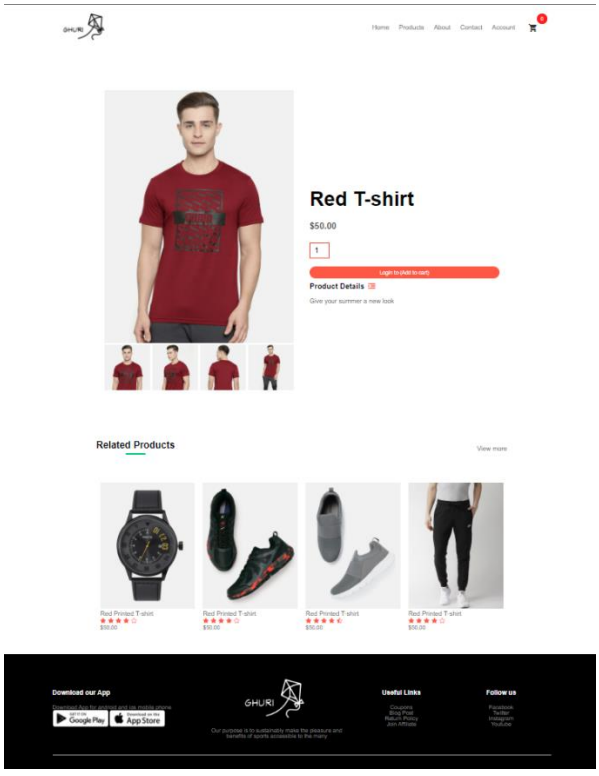

Figure-5.12: Product Details

User Profile

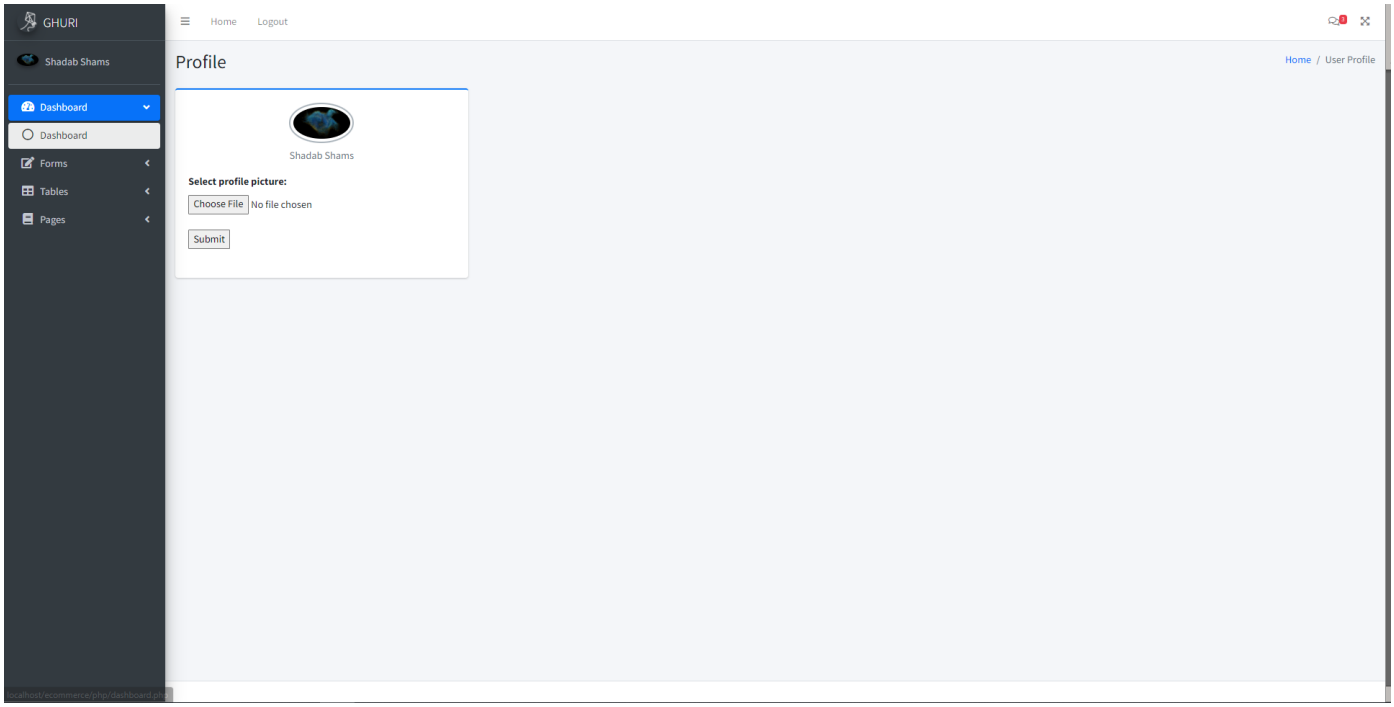

Figure-5.13: User Profile

Contact Us

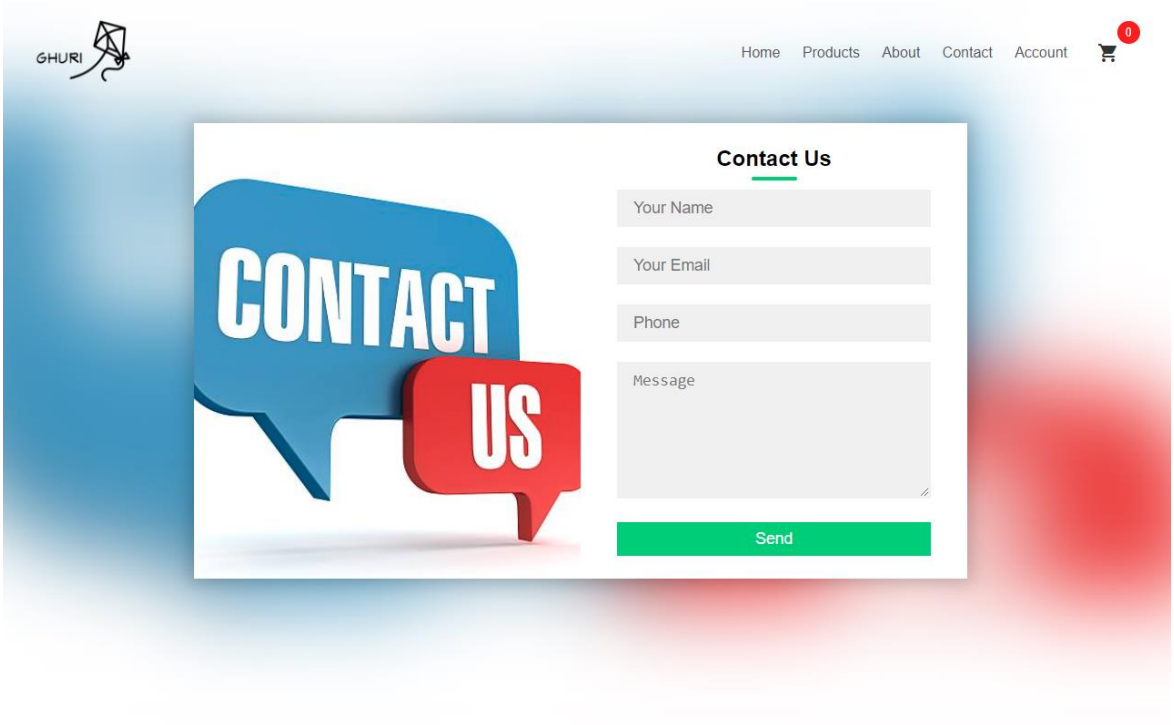

Figure-5.14: Contact Us

Dashboard (Admin)

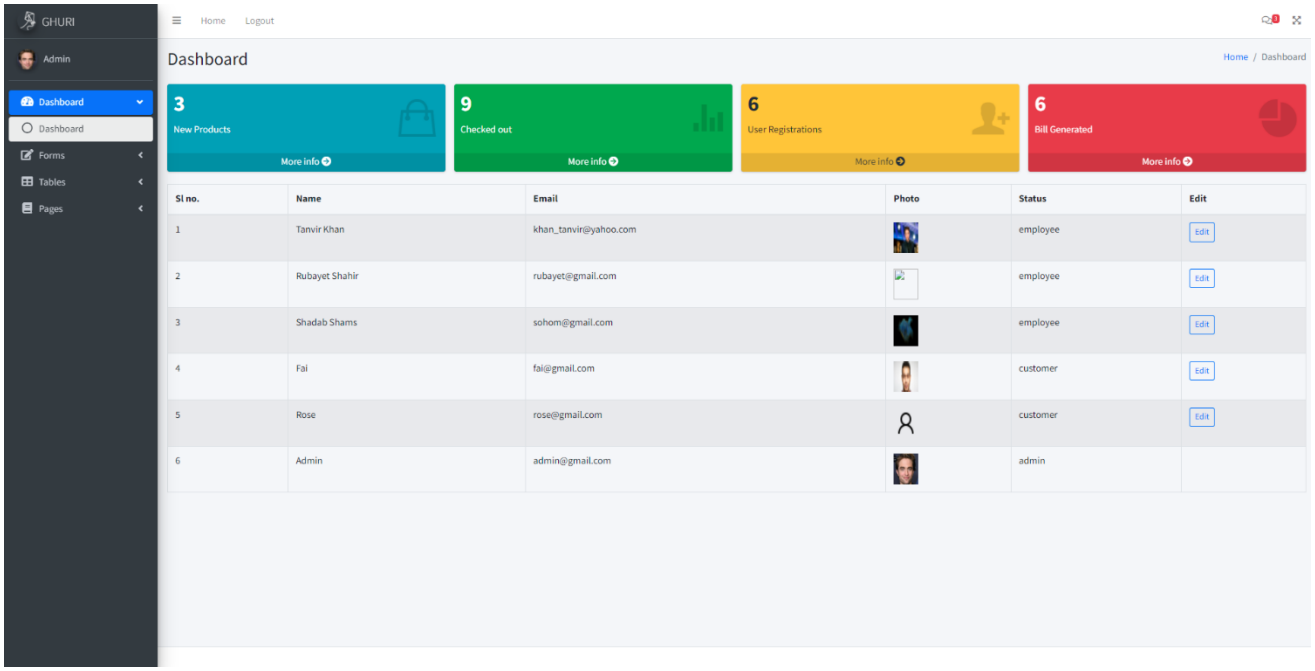

Figure-5.15: Dashboard

5.4.3 Architecture

Front-end

CSS was used to implement the front-end. Different layouts were utilized for various displays. The user interface is quite intuitive and user-friendly. When a user connects onto the system, he or she may immediately begin using the program due to the application's simplicity while still including several features. There will be frequent modifications to adapt the UI to the user experience.

Backend

The backend was written using the PHP. As PHP files can contain text, HTML, CSS, JavaScript and PHP code. PHP code is executed on the server and the result is returned to the browser as plain HTML. PHP files have extension ".php".PHP can generate dynamic page content and can create, open, read, write, delete and close files on the server.

Database

PhpMyAdmin was used for database to safely store the data without any issues. It also assisted in the execution of backend code responding to events activated by databases. Furthermore, it is optimized for offline use too. Nowadays, most of the apps have the login facility and the developer aims to simplify and secure it better.

Chapter 6: Result and Analysis

6.1 Overview

As previously stated, the application, Ghuri, is a PHP-based website with PhpMyAdmin as the database. The application is developed in Visual Studio, with the front interface designed with CSS and the backend written in PHP. The project's total work was centered on the needs of our company's stakeholders. The initial phase was to gather project needs from key stakeholders, which were then organized according to the project's requirements plan. Because this website will be utilized by users all over the country, we wanted to create a project that would meet their requirements. To ensure that the final UI meets the needs of the customer, we had to design

mockups and modify them multiple times. Along with the UI, we had to make sure the project had functionalities that were identical to the application of similar companies as us. To put it another way, we wanted our software to be simple to use while having extensive features.

6.2 Testing Result

The application's development has been successfully completed. Each screen's backend functionality was written at the same time as its UI was being designed. Several new functionalities have been incorporated as a result of changes in specific requirements. I had tested the program whenever new functionalities were incorporated. I planned to finish the design and development process before moving on to testing, however owing to time constraints, I had to complete all 3 phases at the same time. Many test cases had failed, necessitating the efforts of me to correct the bugs and errors. Not only did I run into faults throughout the development and testing phases, but I also had a number of issues with storing data in our PhpMyAdmin database, which were eventually resolved. Our company has released the beta version for now. Once we have completed our test scenarios, we will release our company's final product.

Chapter 7: Engineering Problem Analysis

7.1 Sustainability of the project

The term "sustainability" refers to a product's ability to be maintained and upgraded. In today's environment, any program that is released must be maintained and regularly updated for the benefit of its users.

Community Sustainability

When the project is officially launched, it will significantly impact the community because people will be relieved of the hassle of physically delivering packages to courier companies.

Instead, they will be able to send the parcels to the companies through the application developed by our company. Hence, we believe the user base will grow across the country because it will make sending parcels easier. In conclusion, this project will be community sustainable.

Financial Sustainability

After the project is launched, the primary goal will be to make it easier for consumers to order parcels from Ghuri. The parcels will then be delivered to the customers' desired destination using courier firms such as Pathao or redx. Even though the application is free for users, the company will profit from the initiative since customers are more inclined to order goods from home using a website as there is no delivery charge and no hassle. The company will profit more in terms of income because more orders are expected to be sent through Ghuri than are already. The application will be upgraded and maintained more frequently with the revenue produced.

Organizational Sustainability

After the project is completed, the application may be maintained and upgraded by the same team, or the company may grow the team by adding more members to the project in order to improve the project. The company intends to expand more functionalities and improve the website's appearance by changing the UI. The development team will resolve any faults reported by customers. As stated in previous sections of this study, the application will be maintained and updated on a regular basis to improve the experience of clients using the application so that the project is organizationally sustainable.

7.2 Social and Environmental Effects and Analysis

Socials Effects

Ghuri intends to simplify the process of ordering items by automating the procedure previously performed manually by consumers. The application will save consumers time and money used to deliver the parcel. Additionally, it will enable employees to manipulate the order request submitted by the customer with a few clicks. To complete CRUD operations, staff will require an internet connection and a smartphone. Briefly said, Ghuri will make the procedure of sending a package abroad straightforward and stress-free for both consumers and employees.

Environmental Effects

People are finding it difficult to move from one place to another as the world faces a critical period due to the global pandemic of Covid-19. This system will play a significant part in this situation since it will allow most employees to operate from home and prevent customers from physically visiting the firm's warehouse to deliver the parcel. Only the delivery personnel are required to bring the parcel to the warehouse so that the packaging staff can pack it. As a result, a substantial amount of human contact is reduced, limiting the possibility of the virus spreading.

7.3 Addressing Ethics and Ethical Issues

With the proliferation of data collecting, hacking, and criminality in the world of smartphones, some unstated norms and ethics principles must be observed while developing and distributing an application. Developers of Ghuri believe that the application complies with all applicable codes of conduct for application release and development, which have been taken into serious consideration. Some of them are,

Data Security: The PhpMyAdmin Database stores data on the cloud. When compared to on-premises security, cloud services provide more robust data security; as a result, there is a low risk of data exposure to the public. Security Rules act as a barrier between users' data and malevolent users. Complex rules have been written in Ghuri to ensure the best security for the data.

Data Storage: Since all our application data is stored in the PhpMyadmin database, which is hosted in the cloud, there is essentially no risk of data loss or leakage due to system failure. If the data were retained on-premises, there would be the risk of data loss due to system failure or other disasters. However, because our application data is stored in the cloud, there is virtually little risk of data loss.

Collecting user data: The system will collect only user data relevant to the business. The user's data will be gathered only if the user gives permission to collect the data or willingly provides their data on our application.

Sharing User Data: Despite the fact that the data obtained is unlikely to cause any privacy concerns for most users, the system does not give any service, business, or third-party access to the information acquired.

Chapter 8: Lessons Learned

8.1 Problems Faced During this Period

Due to the pandemic of covid-19, our workplace had to restrict the number of employees. As a result, I was forced to work from home for first month. This was an issue for me since it resulted in a breakdown of communication with my CEO on the application's functionality and UI design. Due to the fact that my firm requested that I develop a professional application, and this was my first time developing a website for an organization, the skill set required for this process was fairly extensive. I was required to learn plenty of new skills in order to incorporate different functionalities necessary for my website, such as how learning to use PhpMyAdmin to send OTP to different numbers or creating logos to use in various screens in the program. Initially, I was assigned a team member to assist me with my project. Throughout the app development process, I encountered numerous challenges whenever I introduced a new feature or made a modification. Solving the bugs was a challenging effort for me, as some of the issues were extremely difficult to discover and, once located, took an unusual amount of time to resolve.

8.2 Solutions of those Problems

Even though I was required to work from home for the first month, I was expected to attend daily meetings and discuss what I created that day, which resolved the issue of communication breakdown. Despite the fact that designing a professional application was new to me, I overcame obstacles and accomplished my goals through dedication to my job and hard effort. However, as I gained knowledge and experience, and after a while, I improved at my work. To ensure that any bugs or issues I encountered were resolved, I tested my program several times whenever I added new features or modified it. While it was obviously time consuming, I was able to rectify all of the flaws or issues that I encountered, which benefitted me in the long run and saved me the time and effort required to find the bugs of a whole application from the ground up.

Chapter 9 Future Works & Conclusion

9.1 Future Works

This project, Ghuri, is still evolving, and we intend to add additional features to it. Some of the features that we have plan to add in the upcoming future are:

- Adding a chatbot for customers to communicate with support team
- Enable users to add their own photo and NID
- Enable order tracking directly from the application
- Enable OTP login using phone number
- Adding an extra feature for customers to use promo code
- Including the option to choose multiple languages

9.2 Conclusion

Working as an intern on the project Ghuri was a wonderful experience. During my internship, I learned and applied a lot about Visual Studio and web development. I learned a great deal about one of the most popular programming languages, PHP, as well as PhpMyAdmin. I have also gained a lot of knowledge about creating various types of websites with Visual Studio. I was challenged to quickly adjust to changes and come up with rational answers. Throughout my project, I discovered how to collaborate with my supervisor to overcome obstacles. Despite the great strain of producing a professional application on my own, I did not give up and succeeded in completing my aim of developing the application in accordance with the specifications. This internship opportunity has given me the opportunity to learn more about the development environment and gain industry experience. I would like to thank everyone who has helped to make my time as an intern a memorable one.

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Appendix-A (Backend Code Snippets)

Login User

```
<?php
session_start(); // Starting Session

//if session exit, user nither need to signin nor need to signup
if(isset($_SESSION['login_id'])){
  if (isset($_SESSION['pageStore'])) {
      $pageStore = $_SESSION['pageStore'];
header("location: $pageStore"); // Redirecting To Profile Page
    }
}

//Login progess start, if user press the signin button
if (isset($_POST['signIn'])) {
if (empty($_POST['email']) || empty($_POST['password'])) {
echo "Username & Password should not be empty";
}
else
{

$email = $_POST['email'];
$password = $_POST['password'];

// Make a connection with MySQL server.
include('config.php');

$sQuery = "SELECT id, password from account where email=? LIMIT 1";

// To protect MySQL injection for Security purpose
$stmt = $conn->prepare($sQuery);
$stmt->bind_param("s", $email);
$stmt->execute();
$stmt->bind_result($id, $hash);
$stmt->store_result();

if($stmt->fetch()) {
  if (password_verify($password, $hash)) {
          $_SESSION['login_id'] = $id;

          if (isset($_SESSION['pageStore'])) {
            $pageStore = $_SESSION['pageStore'];
```

```
            }
            else {
              $pageStore = "index.php";
            }
            header("location: $pageStore"); // Redirecting To Profile
            $stmt->close();
            $conn->close();

          }
else {
        //echo '<script>alert("Invalid Username & Password")</script>';
        //header("Location: account.php");
        echo "<script> alert('Invalid Username & Password');
           window.setTimeout(function(){

             window.location.href = 'account.php';

           }, 500);
         </script>";
    }
      } else {
        //echo '<script>alert("Invalid Username & Password")</script>';
        //header("Location: account.php");
        echo "<script> alert('Invalid Username & Password');
           window.setTimeout(function(){

             window.location.href = 'account.php';

           }, 500);
         </script>";
      }
$stmt->close();
$conn->close(); // Closing database Connection
}
}
?>
```

Register User

```
<?php
session_start();// Starting Session

//if session exit, user nither need to signin nor need to signup
if(isset($_SESSION['login_id'])){
  if (isset($_SESSION['pageStore'])) {
      $pageStore = $_SESSION['pageStore'];
header("location: $pageStore"); // Redirecting To Profile Page
    }
}

//Register progess start, if user press the signup button
if (isset($_POST['signUp'])) {
if (empty($_POST['fullName']) || empty($_POST['email']) ||
empty($_POST['newPassword'])) {
echo "Please fill up all the required field.";
}
else
{

$fullName = $_POST['fullName'];
$email = $_POST['email'];
$password = $_POST['newPassword'];
$hash = password_hash($password, PASSWORD_DEFAULT);

// Make a connection with MySQL server.
include('config.php');

$sQuery = "SELECT id from account where email=? LIMIT 1";
$iQuery = "INSERT Into account (fullName, email, password, photo, users)
values(?, ?, ?, 'user.png', 'customer')";

// To protect MySQL injection for Security purpose
$stmt = $conn->prepare($sQuery);
$stmt->bind_param("s", $email);
$stmt->execute();
$stmt->bind_result($id);
$stmt->store_result();
$rnum = $stmt->num_rows;

if($rnum==0) { //if true, insert new data
          $stmt->close();
```

```
          $stmt = $conn->prepare($iQuery);
          $stmt->bind_param("sss", $fullName, $email, $hash);
          if($stmt->execute()) {
                //echo 'Register successfully, Please login with your login
details';
                echo "<script> alert('Register successfully, Please login with
your login details');
                window.setTimeout(function(){

                    window.location.href = 'account.php';

                }, 500);
                </script>";
             }
         } else {
        //echo 'Someone already register with this email address.';
        echo "<script> alert('Someone already register with this email address.');
        window.setTimeout(function(){

            window.location.href = 'account.php';

        }, 500);
        </script>";
    }
$stmt->close();
$conn->close(); // Closing database Connection
}
}
header('Location: account.php');
?>
```

Product details

```php
<?php
$session_fullName = null;
include 'header.php';
include 'session.php';
include 'config.php';

if(isset($_GET["name"]) && isset($_GET["price"]) && isset($_GET["photo1"]) &&
isset($_GET["photo2"]) && isset($_GET["photo3"]) && isset($_GET["photo4"]) &&
isset($_GET["photo5"]) && isset($_GET["details"]) )
{
    $name = $_GET["name"];
    $price = $_GET["price"];
    $photo1 = $_GET["photo1"];
    $photo2 = $_GET["photo2"];
    $photo3 = $_GET["photo3"];
    $photo4 = $_GET["photo4"];
    $photo5 = $_GET["photo5"];
    $details = $_GET["details"];

    // echo $name;
    // echo $price;
    // echo $photo1;
    // echo $photo2;
    // echo $photo3;
    // echo $photo4;
    // echo $photo5;
    // echo $details;
}

// if(isset($_GET["data"]) && isset($_GET["data2"]))
// {
//     $data = $_GET["data"];
//     $data2 = $_GET["data2"];

//     echo $data;
//     echo $data2;
// }

$cart = mysqli_query($conn, "SELECT * FROM cart");

?>
```

```
    <div class="container">
        <!--NavBar-->
        <?php
            include 'navbar.php';
        ?>
    </div>

<!--Single Product details-->

    <div class="small-container single-product">



            <div class="row">
                <div class="col-2">
                    <img src="../images/<?php echo $photo1; ?>" width="100%"
id="ProductImg">

                    <div class="small-img-row">
                        <div class="small-img-col">
                            <img src="../images/<?php echo $photo2; ?>"
width="100%" class="small-img">
                        </div>
                        <div class="small-img-col">
                            <img src="../images/<?php echo $photo3; ?>"
width="100%" class="small-img">
                        </div>
                        <div class="small-img-col">
                            <img src="../images/<?php echo $photo4; ?>"
width="100%" class="small-img">
                        </div>
                        <div class="small-img-col">
                            <img src="../images/<?php echo $photo5; ?>"
width="100%" class="small-img">
                        </div>
                    </div>

                </div>

                <div class="col-2">
                    <!-- <p>Home / T-Shirt</p> -->
                    <h1><?php echo $name; ?></h1>
                    <h4><?php echo '$'.$price.'.00'; ?></h4>
                    <!-- <select>
                        <option disabled>--Select Size--</option>
```

```
                        <option>XXL</option>
                        <option>XL</option>
                        <option>Large</option>
                        <option>Medium</option>
                        <option>Small</option>
                    </select> -->
                    <?php
                    if ($session_fullName === null){
                        echo '<form action="account.php">
                            <input type="number" name="quantity" value="1">
                            <a href="account.php"><button class="btn">Login to
(Add to cart)</button></a>
                        </form>';
                    }
                    else{
                        $check = mysqli_query($conn, "SELECT * FROM cart WHERE
name = '$name' AND user = '$session_id' ");
                        $checkrows = mysqli_num_rows($check);

                        if($checkrows>0){
                            echo '<form action="products.php">';
                                echo '<select>
                                        <option disabled>--Select Size--</option>
                                        <option>XXL</option>
                                        <option>XL</option>
                                        <option>Large</option>
                                        <option>Medium</option>
                                        <option>Small</option>
                                    </select>';
                                echo '<input type="number" name="quantity"
value="1">';
                                echo '<button class="btn">Already in
cart</button>';
                            echo '</form>';
                        }else{
                            echo '<form method="post"
action="./cart.php?user='.$session_id.'&photo='.$photo1.'&name='.$name.'&price='.
$price.'">';
                                echo '<select name="size">
                                        <option disabled>--Select Size--</option>
                                        <option>XXL</option>
                                        <option>XL</option>
                                        <option>Large</option>
                                        <option>Medium</option>
                                        <option>Small</option>
```

```
                                    </select>';
                                echo '<input type="number" name="quantity"
value="1">';
                                echo '<button type="submit" name="submit"
class="btn">Add to cart</button>';
                            echo '</form>';
                        }
                    }
                    ?>
                    <h3>Product Details<i class="fa fa-indent"></i></h3>
                    <br>
                    <p><?php echo $details; ?></p>
                </div>



        </div>
    </div>

    <!-- title -->
    <div class="small-container">
        <div class="row row-2">
            <h2>Related Products</h2>
            <p>View more</p>
        </div>
    </div>

    <!--products-->
    <div class="small-container">
        <div class="row">
            <div class="col-4">
                <img src="../images/product-9.jpg">
                <h4>Red Printed T-shirt</h4>
                <div class="rating">
                    <i class="fa fa-star"></i>
                    <i class="fa fa-star"></i>
                    <i class="fa fa-star"></i>
                    <i class="fa fa-star"></i>
                    <i class="fa fa-star-o" aria-hidden="true"></i>
                </div>
                <p>$50.00</p>
            </div>
            <div class="col-4">
                <img src="../images/product-10.jpg">
                <h4>Red Printed T-shirt</h4>
```

```
            <div class="rating">
                <i class="fa fa-star"></i>
                <i class="fa fa-star"></i>
                <i class="fa fa-star"></i>
                <i class="fa fa-star"></i>
                <i class="fa fa-star-o" aria-hidden="true"></i>
            </div>
            <p>$50.00</p>
        </div>
        <div class="col-4">
            <img src="../images/product-11.jpg">
            <h4>Red Printed T-shirt</h4>
            <div class="rating">
                <i class="fa fa-star"></i>
                <i class="fa fa-star"></i>
                <i class="fa fa-star"></i>
                <i class="fa fa-star"></i>
                <i class="fa fa-star-half-o" aria-hidden="true"></i>
            </div>
            <p>$50.00</p>
        </div>
        <div class="col-4">
            <img src="../images/product-12.jpg">
            <h4>Red Printed T-shirt</h4>
            <div class="rating">
                <i class="fa fa-star"></i>
                <i class="fa fa-star"></i>
                <i class="fa fa-star"></i>
                <i class="fa fa-star"></i>
                <i class="fa fa-star-o" aria-hidden="true"></i>
            </div>
            <p>$50.00</p>
        </div>
    </div>


</div>

<!-- footer -->
<?php
    include 'footer.php';
?>

<!-- js for toggle menu -->
<script>
```

```
        var MenuItems = document.getElementById("MenuItems");
        MenuItems.style.maxHeight = "0px";
        function menutoggle(){
            if(MenuItems.style.maxHeight == "0px"){
                MenuItems.style.maxHeight = "200px"
            }
            else {
                MenuItems.style.maxHeight = "0px"
            }
        }
    </script>

    <!--js for product gallery-->
    <script>
        var ProductImg = document.getElementById("ProductImg");
        var SmallImg = document.getElementsByClassName("small-img");

        SmallImg[0].onclick = function(){
            ProductImg.src = SmallImg[0].src;
        }
        SmallImg[1].onclick = function(){
            ProductImg.src = SmallImg[1].src;
        }
        SmallImg[2].onclick = function(){
            ProductImg.src = SmallImg[2].src;
        }
        SmallImg[3].onclick = function(){
            ProductImg.src = SmallImg[3].src;
        }
    </script>

</body>
</html>
```