Independent University **Bangladesh (IUB)**

IUB Academic Repository

Internship Reports Summer 2023

2023-10-01

An Undergraduate Internship/Project on E-commerce Website

NADIA, SANZIDA

Independent University, Bangladesh

https://ar.iub.edu.bd/handle/11348/682

Downloaded from IUB Academic Repository

An Undergraduate Internship/Project on E-commerce Website

By

SANZIDA NADIA

Student ID: **1910207**

Summer, 2023

Supervisor:
Dr. Md. Tarek Habib

Assistant Professor

Department of Computer Science & Engineering

Independent University, Bangladesh

October 1, 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 serves to confirm that the report entitled "E-Commerce Platform" has been executed by me, Sanzida Nadia (1910207), and submitted as a component of the requirements for the Degree of Computer Science from Independent University, Bangladesh (IUB). The report was completed under the guidance of Dr. Md. Tarek Habib (Supervisor). I further attest that all the work presented in this report is entirely original and was acquired during my tenure as an intern. All sources of information utilized in the project and report have been duly acknowledged and cited in accordance with academic standards.

Sanzida Nadia — Signature

05.10.23 — Date

Sanzida Nadia

Name

Acknowledgement

First and foremost, I extend my sincerest gratitude to The Almighty Allah for His benevolent grace in enabling me to successfully complete my internship report within time. I am deeply thankful to the Faculty of Computer Science and Engineering department for including an internship course CSE499 within the graduation program curriculum, and for providing me with the opportunity to gain hands-on experience in the field of my interest.

I extend my heartfelt thanks to my supervisor, Dr. Md. Tarek Habib, Assistant Professor for his unwavering encouragement, guidance, invaluable instructions, stimulating suggestions, and thoughtful advice throughout the duration of my internship and the preparation of this report.

From the depths of my being, I am grateful to my supervisor Muhammad Shohidullah Kaisar Senior Software Engineer, Appnap, for his kind support, guidance, constructive supervision, instructions, and advice and for motivating me to complete my internship at Appnap smoothly. I feel proud and thankful that I was always held under the supervision of the Web Application Development team and got advice regularly.Daily reporting and mental and support enhance my experience in the internship life.I’m also thankful to my another supervisor, Rakib Ibna Hamid Chowdhury who gave me support while working,with his continiously direction, instructions, suggestions, and advice, he guide me the whole period of this internship and also help me to make this report. They always advised me and helped me in every situation..

Lastly I must appreciate this organization's working environment and also this place is so welcoming which helps me to cope up with corporate life. I'd like to express my heartfelt gratitude to my parents for affording me the opportunity to pursue my education. Their unwavering support has ensured a comfortable life for me. In this remarkable journey, my elder sister has been an invaluable presence. Without her, completing it would have been an insurmountable challenge. She is not only a blessing in my life but also a second mother to me.

Letter of Transmittal

Dr. Md. Tarek Habib
Assistant Professor
Department of Computer Science and Engineering School of Engineering and Computer Science
Independent University, Bangladesh

Subject: Submission of Final Internship Report in Compliance with Graduation Requirements.

Dear Sir,
With due respect, I am submitting my Internship Report, which is a requisite component of my Bachelor's degree in Computer Science and Engineering. It is a profound honor to have had the opportunity to work under your esteemed guidance. This report is a result of my internship tenure at Appnap, where I was privileged to work for a period of three months under the supervision of Muhammad Shohidullah Kaisar,Senior Software Engineer of the company. This internship afforded me the opportunity to gain both theoretical and practical knowledge, as well as to establish professional connections. I have given all effort to ensure that this report is as informative and comprehensive as possible, by describing the skills and knowledge that I gained during my internship. I have maintained the guidelines provided and have furnished necessary detail in the report. This report will fulfill the purpose of my internship program.

I would be appreciative if you would kindly review the report and offer your invaluable feedback. It would be a great honor if you found the report to be informative and of use in gaining a clearer perspective on my internship experience.

Sincerely,
Sanzida Nadia
ID: 1910207
Department of Computer Science and Engineering
Independent University, Bangladesh

Evaluation Committee

Supervision Panel

Academic Supervisor	Industry Supervisor
Dr. Md. Tarek Habib	Muhammad Shohidullah Kaisar

Panel Members

Panel Member 1	Panel Member 2
Mr. Sajed Imtiaznul Haque	Md. Fahad Monir

Office Use

Program Coordinator	Head of the Department
Subrata K. Dey	Mahady Hasan

Abstract

In this report, I present my internship experience at Appnap, it provides a wide range of services to both local and international market including video streaming platform, mobile application, web application, ecommerce websites/apps, business research, user experience and user interface design and I have been hired as a trainee under “Hire & Train" training program in collaboration with IIT-DU and EDGE.

The internship is defined as obtaining practical experience from various organizations, which helps form a connection between theoretical and practical knowledge. It is essential because it is the first time for a student to acquire a keen practical understanding of different organizations.

My main tasks were to design and develop an "E-Commerce Platform" where users can view products,add products to the cart,place orders and make their payments and from the admin side they can update the product to the main website and track orders as well by the help of laravel framework.

The report describes the motivation, objectives, challenges and outcomes of the project. It also explains the technologies and tools that were used like Laravel which is known as an open source PHP framework.

I created an E-Commerce Platform. To build the project, I created a plan, gathered data, designed the website, and coded it.The report also reflects on the skills and knowledge that I gained during the internship, such as Full-Stack development,Teamwork and Communication in person and also through using tools like Git.

The features were successfully completed and deployed to production within the three month internship period,and most of the time was given to understand this framework and how it works.

This project has provided me with some invaluable learning opportunities. This initiative has inspired me to pursue further development-related endeavors. This experience will be beneficial to my future work.

Contents

Chapter 1 1
Introduction 1
1.1 Overview/Background of the Work 1
1.2 Objectives 2
1.3 Scopes 2
Chapter 2 4
Literature Review 4
2.1 Relationship with Undergraduate Studies 4
2.2 Related works 5
Chapter 3 7
Project Management & Financing 7
3.1 Work Breakdown Structure 7
3.2 Process/Activity wise Time Distribution 8
3.3 Gantt Chart 8
3.4 Process/Activity wise Resource Allocation 9
3.5 Estimated Costing 10
Chapter 4 11
Methodology 11
Chapter 5 13
Body of the Project 13
5.1 Work Description 13
5.2 Requirement Analysis 14
5.3 System Analysis 15
5.3.1 Six Element Analysis 16
5.3.2 Feasibility Analysis 17
5.3.3 Problem Solution Analysis 17
5.3.4 Effect and Constraints Analysis 18
5.4 System Design 18
5.4.1 UML Diagrams 18
5.4.2 Architecture 21
5.5 Implementation 22
5.6 Testing 22
5.6.1 Input 22
5.6.2 Output 23
5.6.3 Designing Test Cases 29
5.6.4 Test Results 29
Chapter 6 31
Results & Analysis 31
Chapter 7 38

Project as Engineering Problem Analysis 38
7.1 Sustainability of the Project/Work 38
7.2 Social and Environmental Effects and Analysis 38
7.3 Addressing Ethics and Ethical Issues 39
Chapter 8 40
Lesson Learned 40
8.1 Problems Faced During this Period 40
8.2 Solution of those Problems 40
Chapter 9 42
Future Work & Conclusion 42
9.1 Future Works 42
9.2 Conclusion 42
Bibliography 43

List of Figure

3.1 "Famms" work breakdown structure……23
3.3 Gantt Chart……..……...25
4.1 Agile Methodology……..……..28
5.2.1 Rich Picture of The System……31
5.4.1.1 User Activity Diagram……....36
5.4.1.2 Admin Activity Diagram……37
5.4.1.3 Used Case Diagram of The System…….……..……38
5.6.1.1 Admin/Customer Login Form……..……39
5.6.1.2 Admin/Customer Register Form……40
5.6.2.1 Customer Home Page……..…...40
5.6.2.2 Customer Home Page……..41
5.6.2.3 Customer Product Details Page……..……41
5.6.2.4 Customer View Cart Page……..…....42
5.6.2.5 Customer payment page via card……42
5.6.2.6 Admin Dashboard……43
5.6.2.7 Admin Add Product page……..…….43
5.6.2.8 Admin Update/Delete Product page……....44
5.6.2.9 Admin Add Category page……..……...44
5.6.2.10Admin Order page…….……45
6.1 Customer Home Page……..…….……..48

6.2 Customer Product Details Page…….…….48
6.3 Customer View Cart Page…….…….49
6.4 Customer payment page via card…….……..49
6.5 Admin Dashboard…….50
6.6 Admin Add Product page…….…….50
6.7 Admin Update/Delete Product page…….51
6.8 Admin Add Category page……...51
6.9 Admin Order page…….……52

List of Tables

3.2 Time Distribution Table……24
5.3.1 Six Element analysis of “Famms”.....33
5.6.4.1 Result of test cases…….……....45

Chapter 1

Introduction

Internships are designed for gaining knowledge about corporate life. It is the mixed up of a student's academic and career objectives. Internship program is designed to assist students in focusing on their career interests and potential. Here students are free to study, observe, and choose their own goals according to their interest and objectives throughout the curriculum and what they learn through their academic life.. The internship allows students to apply their theoretical knowledge in challenging real-world situations. Independent University, Bangladesh's Department of Computer Science & Engineering provides an undergraduate program in "Computer Science and Engineering." As an undergraduate student, the program mandatoried that we complete an Internship Program with a respected organization where I will be instructed in workplace standards and become acquainted with the industry. I completed my three-month internship with a software company called "Appnap." In this report, I talked about my internship experience and learning at “Appnap. A summary of experiences working ,learning from this company and also how it helped me improve and progress.

1.1 Overview/Background of the Work

Technological developments always have a big impact and effect on all parts of human life and it also helps us to improve our everyday life. The difference from past days and dependency on technology can be seen clearly in our regular life. Over the previous two decades technical breakthroughs have changed our communication, entertainment,education, and business techniques and practices. Since the Internet’s inception in the late 1960s as a tiny network of computers it has grown to become the primary and most essential link between corporations, governments, and individuals. Geographical limitations, time limits, and financial constraints are all eradicated by the Internet. It is also easily accessible to everyone. It is a low-cost method of spreading cutting-edge technology, business concepts, and ideas to a wide number of people and it creates an excellent atmosphere for entrepreneurs. E-commerce (also known as electronic commerce or EC) is the buying and selling of products and services through an electronic network, most notably the internet. All types of transactions are available including business-to-business, business-to-consumer, consumer-to-consumer, and consumer-to-business.

Famms is an e-commerce platform that will be able to supply every customer in Bangladesh with any sort of commodity or necessity that is needed in one's day to day life. Any consumer with a smartphone or computer and an internet connection will have access to the whole global market at their fingertips. It is a marketplace where customers may purchase a wide range of products from a single website. The website sells anything.
There are many PHP frameworks for developing websites ,but for this project Laravel is used. Laravel is a web application framework with expressive,elegant syntex.

1.2 Objectives

The project's major objective is to provide a user-friendly interface that allows sellers and consumers to communicate easily. All the content in the website is easy to find.Website should be easy to maintain.
Websites should be controlled through the admin panel. And all the contents and the posts in the website have to be dynamic and the admin has full control over it.
Lightweight website and easy to load, no external time needed for loading the website.
Our main aim is to keep our customers' and administrators' information safe.And also it has to be user friendly so that users are more comfortable to use that and develop willingness to use this e-commerce platform. Hash encrypted passwords will be given, ensuring that no one can obtain the password, not even from the database rather then the administration who will be responsible for maintaining this platform.

1.3 Scopes

Features available to the user after the development of this web application:
1. Home page- The first page the user will see after visiting the website
2. Product category- Users can see any product from the main website.
3. Customer Registration- Customers can register from the registration page after filling up all information that is needed to register as a customer.
4. Customer Login- Customer can login from the login page.
5. Admin Registration- Admin can register from the Admin dashboard.
6. Admin Login- Registered admin can login from the Admin dashboard.
7. Add/Remove Product- Admin can add or remove product from any category or sub-category.

8. Place order- Customers can place orders after giving the payment and it has two payment options one is cash on delivery and other on is online payment. If a customer chooses online payment then they have to give the details about their card.
9. Cart- Customers can add products in cart,they can also remove products from cart.
10. Order- Admin can check order details.

Chapter 2

Literature Review

2.1 Relationship with Undergraduate Studies

• CSC 203: Data Structure: This course teaches us the ideas and techniques of data structure. It includes lists,queues, trees,stacks, and graphs. It helps to think logically rather than scenario, problem-solving concepts were learned here. The whole syllabus of data structure leads to being beneficiary to choose the appropriate data structure for developing this ecommerce platform like storing etc. “E-COMMERCE PLATFORM” includes data structures which are more complicated. Knowledge from this course helped me to solve them so easily.

• CSE 213:Object-Oriented Programming: This course is the firs course where i learned to handle objects and the base of developing sites. In this course I have done the Library management system and the knowledge helped me so much while doing this project. And here I have learned about modular format so that there is no need to rewrite codes again and again ,with this I can simply modify the code or add function according to the need of the project. From here I have learned it is important to focus on maintainbilty..

• CSE 303:Database Management: It was the first course that taught how to design and plan a project. It includes the needs of proper planning and strategy practices so that we can get the desired final outcome. They are System Development Life Cycle, Rich Picture, Requirement Analysis, Entity Relationship Diagram, Business Process Modeletc. All of these help to have a clear view of the outcome and their activity so that we can make the project easier. All of these help to make the plan of the “E-Commerce Platform.” This is where I have learned to stored, manipulated, distributed, queried data efficiently and securely using MS SQL server.

• CSE 307 :System Analysis and Design:Mainly the procedure on how to proceed further to develop a platform by using techniques and tools so that we get a clearer view of the final outcome is taught in this course. System management is very important in developing any system and this course helps to understand this and this knowledge wass beneficiary while developing this site. Data flow diagrams are another important thing and while developing this e commerce platform Data flow diagrams made both for customer and admin.

• CSE 309:Web Applications and Internet: This is the course where the development of web applications was taught.And this is where I first got the knowledge about web development sites in the corporate world and this knowledge helps me to finish this internship period. Technologies which are more demanding in the industry were taught here. HTML, CSS, Bootstrap, JavaScript, MongoDB, jQuery,Node.js,PHP, Ex- press.js covered in this course and all of the knowledge about this technology help me to develop this e-commerce platform.

2.2 Related works

Internet shopping is a kind of electronic shopping store where the client is straightforwardly online to the dealer's PC generally by means of the net. "Famms" will be the same kind of website for those who have no time for shopping and also sometimes it is not possible for everyone to go out and buy their necessary things from shops to shops,"Famms" will provide this service. So it is important to understand internet business and their barriers to establish this website. Here I will describe how I worked in such improvements by investigating examination papers on E-Commerce.
There are many similar types of web applications or websites on the internet.
Here showing few of them:
Daraz: Daraz is one of the most well-known names in the field of e-commerce, and it is currently one of the most prestigious and leading e-commerce sites in Bangladesh. Their website accurately portrays the company's true identity.
Pickaboo: Pickaboo is one of the most popular e-commerce sites in Bangladesh. It provides genuine smartphones,electronics,perfume,watches etc.
Ajkerdeal:Ajkerdeal is very popular from the beginning of their business,they provide daily necessary products to the customer.

Basically above three sites they also provide services to customers through internet business. And these websites give me an idea to develop my "Famms" e-commerce site. Also while doing my course projects it also helps me to develop this project.
1.While doing system analysis and design i made a project which helped me to design and implement in my field work.i made a project which was named "GetWellSoon " for consumers to buy medicine from any pharmacy.
2.Doing (OOP) I made a project in "Library Management".
3.In Web Application and Design, I made a website called "BookCart".

4.In Database Management, I made a project where I made a database management system to store data and show data , the name was “Air Quality Monitoring System”.

Chapter 3

Project Management & Financing

3.1 Work Breakdown Structure

WBS is a structure which describes a project's breakdown into smaller parts. For this project, we have produced a WBS so that our work is easier. WBS offers a visual of all the scopes, risks, points of communication, responsibilities, costs and guarantees that it does not skip essential deliverables. For brainstorming and collaboration, it is the ideal tool for the team. In our WBS, we have used the top-down approach.

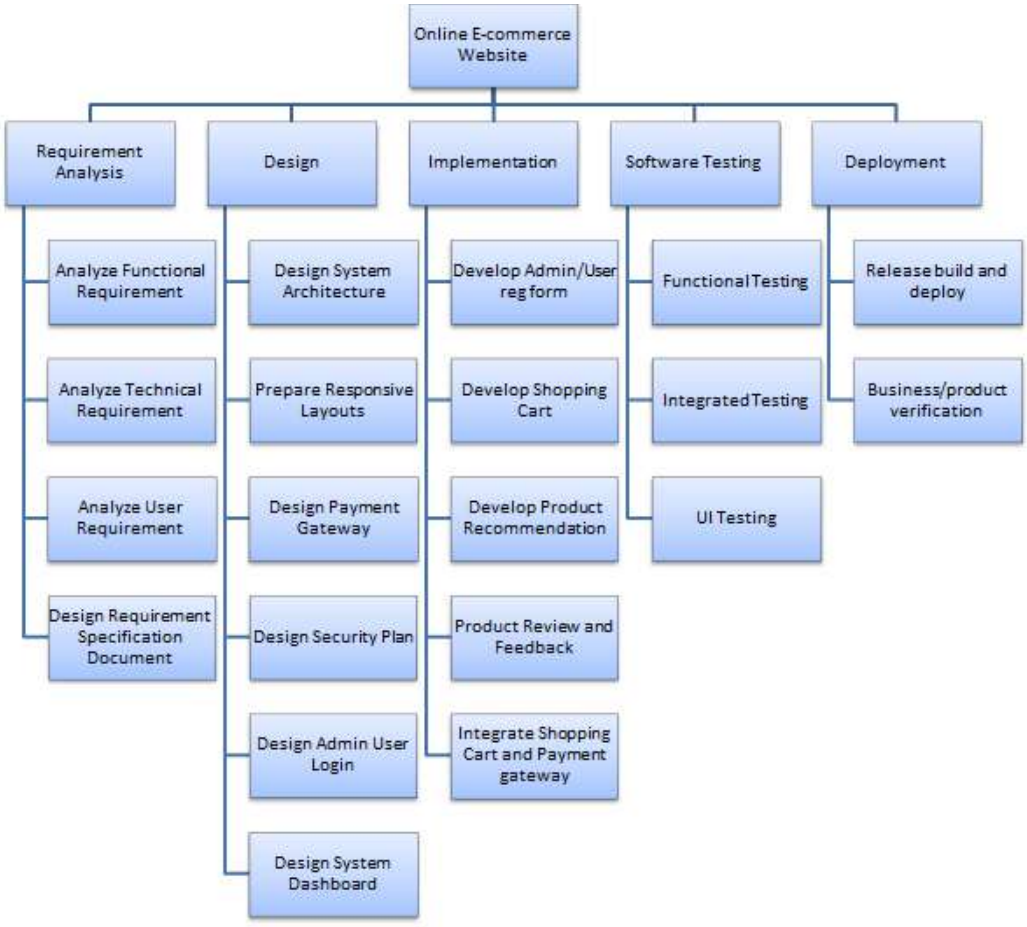


Figure 3.1: "Famms" work breakdown structure

3.2 Process/Activity wise Time Distribution

The entire web development process is properly done timely and distributed to each zone like requirement,planning etc. It is very important to break down the entire activity and give a time limit for each individual of every work. It increases the user satisfaction as planning is accordingly and it increases the success rate as well.Every section that I have mentioned in my Work Breakdown Structure, time was distributed accordingly so that the project completes on time.

Activity	Days	Work Percentage
Requirement	5	5
Project Planning and Risk Management	10	6
Design & Prototype	12	9
Admin Dashboard(Database)	13	20
User Dashboard(Database)	8	40
Testing	5	15
Error & Bug fixing	7	5
Total	60	100%

Table 3.2: Time Distribution Table

3.3 Gantt Chart

Here is the Gantt Chart to plan and timetable for every section of the work.

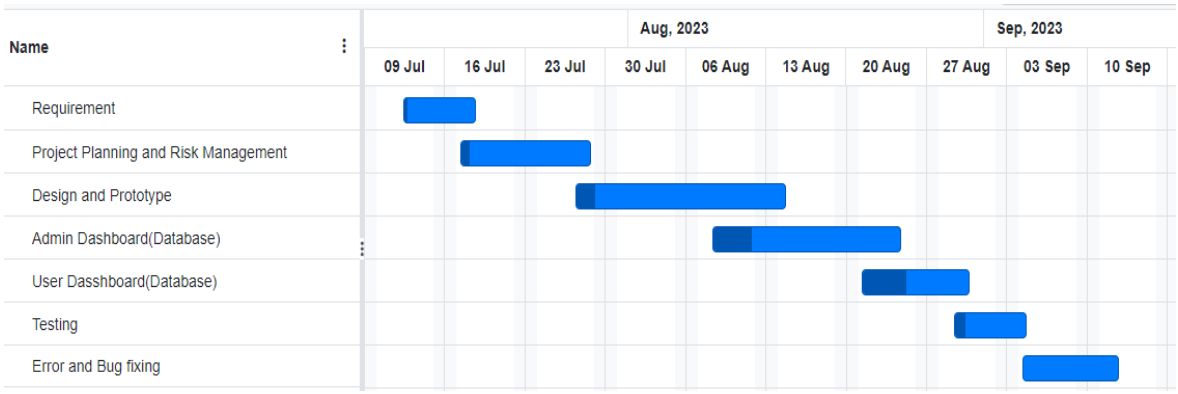


Figure 3.3: Gantt Chart

Gantt Chart is basically a graphical clarification of an undertaking. It is a sort of Bar outline that shows the time start, time-frame and the end season of the task till arrangement. The Level line shows the measure of work done in specific timeframes.

3.4 Process/Activity wise Resource Allocation

Resource allocation is mainly to distribute the task according to the plan so that it is easier to gain the final outcome. This whole project was done by me but we were also taught how to allocate the task in a group. With the help of this idea I have made a plan and allocated the resource accordingly to get the final outcome.

- First step to overall plan to develop this website ,it includes all requirements where I have continuously in discussion with my supervisor and also give me the brief idea how I was planning to proceed further. And this time period spent to build all set up what is required for development of this project.
- Nex task to design the Website ,as Most work is done by Laravel framework but it also needs to be modified. I separate the whole template in some blade files like header,body,footer etc. Because of that it simply makes things easier to modify.
- After separating all necessary files I have started to work on the main code. I have made the routes ,databases as needed and worked on them. And this is the main part and it leads to main project completion.
- In this period of time testing was done continuously.
- And this time we were taught about deployment but it was not part of our job.

3.5 Estimated Costing

Costing basically depends on the project and the requirements of a client. Completion of a project depends on requirements of the project,but it also includes some limitations of time. All of this all together calculates the costing. As this project was individual we were not taught more about the costing but we taught how it will fix the cost and how it varies depending on all things like time ,requirement,size,limitations etc.

But if measure were done for this e-commerce platform then it will include

Electricity bill(4000-5000 tk),
Internet bill(2500-3000),
Senior developer salary(75000-80000 tk),
Ui Ux designer(35000-40000 tk),
Business analyst (20000-25000)

This is the roughly estimated monthly cost. And now the total costing will depend
on how much time given to a project and also other cost may add here.

Chapter 4

Methodology

Methodology in the development field refers to a proper guideline that can be followed to plan the whole project . It includes how to develop a website,design the website,build according to the plan ,testing and also maintaining the website. And the main purpose to gain the best comes at the end.

It plays one of the vital roles to gain the final outcome. It is a collection of procedures, techniques, tools, and documentation aids. It will help the developers in their efforts to implement a new information system. It can be used as a detailed procedure to identify,select,process and analyze information about a subject.

There are various methodology types which can be used in software development. But choosing the best methodology depends on the specific project,team and goals is very important. So to understand the project of "Famms" I'm choosing Agile Methodology.

Agile methodology is created specifically for e-commerce websites, apps and software. Agile follow some steps to gain the final outcome in development,and they are:

- Requirement analysis
- Planning
- Software design such as architectural design
- Software development
- Testing
- Deployment



Figure 4.1: Agile Methodology

Agile methodology mainly prioritizes the flow and performance of the entire e-Commerce system with the help of utilizing development and operations to build the business. This methodology and e-Commerce work perfectly all together if I think from the user side as well. There are multiple reason for getting the advantages from this methodology to think like this,and they are

- Increased speed
- Keeping track of market value
- Product quality that is higher
- Adaptability with new trend
- Risks are reduced
- Testing is done regularly
- Customers who are happier

Chapter 5

Body of the Project

This part contains details of the project, what was done ,how it was done, what the results were etc.

5.1 Work Description

“Famms” is an online e-commerce platform that sells different types of products like toys to clothes etc. The main purpose is to sell various types of products under one roof. My main task is to develop this platform using mainly Laravel framework but also get assistance from various instruments like Bootstrap HTML, CSS, PHP, jQuery and so on and fabricate the backend so the two can be associated.

5.2 Requirement Analysis

Rich Picture

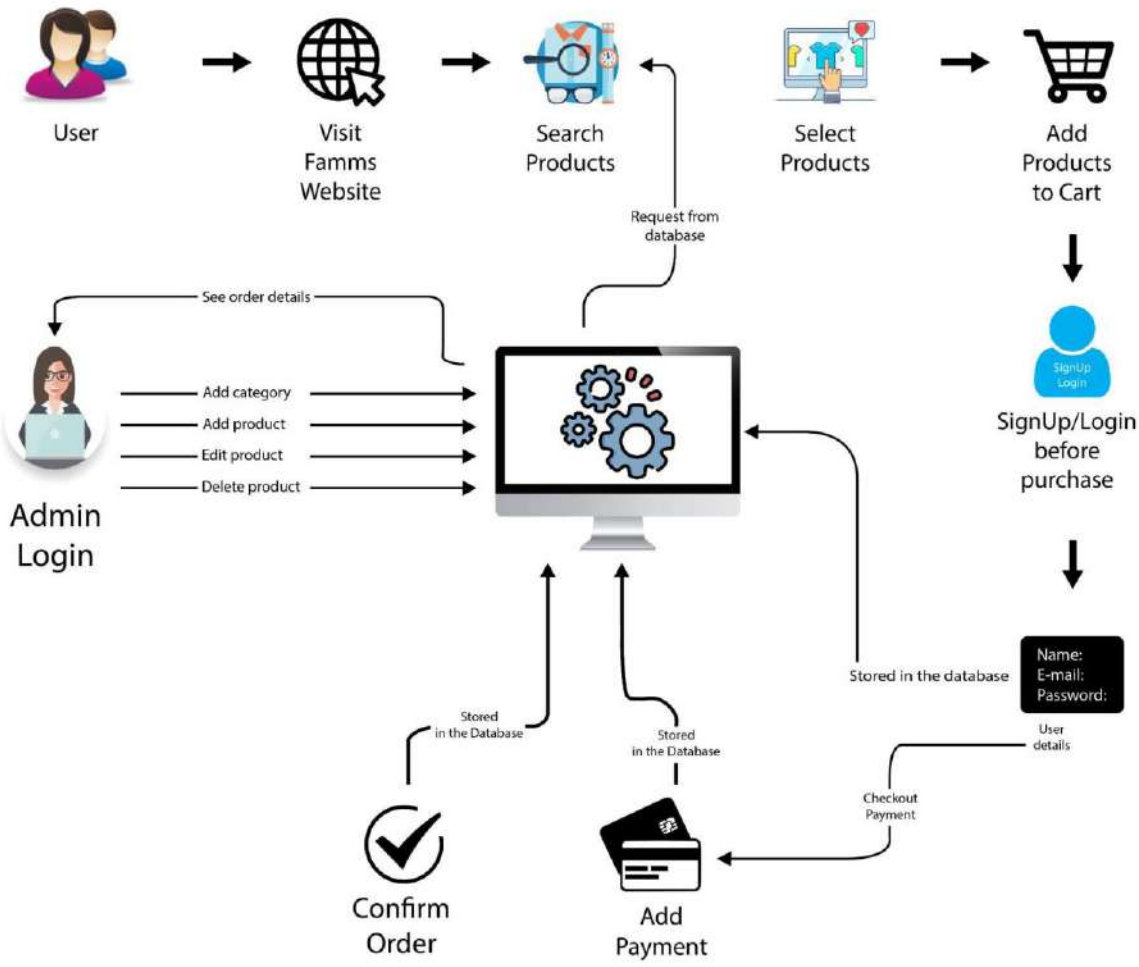


Figure: 5.2.1 Rich Picture of The System

Functional and Non-Functional Requirements

Functional Requirements

• Add Product: New products must be entered in a database with full detailed information which includes category ,images ,prices,quantity.

• Add Category: New category must be entered in database to store new product according to category

• Edit Product: Any changes in product should be updated in case of update by admin interface

• Delete Product: Wrong entry must be removed from the database

• Order: Admin can see the order details
• Register: Customers must full fill all application form for registration
• Search:Customers can search any product
• Add to Cart: After successful login and select desired products customer can add item to cart for checkout .

Non-Functional Requirements
• Security: Only authorized users can access the system with username and password. If the password is wrong or email is wrong then it will show an error message.
• Performance: Easy tracking of records and updating can be done by the admin panel easily.
• User Friendly: The System is very interactive. And smooth so that users can understand from their first use.
• Maintainability: Backups for databases are available. So data erase is not possible • Service: The system will run 7 days a week, 24 hours a day.

5.3 System Analysis

System analysis is a process of problem solving technique,examining,modeling and understanding complex systems to make decisions according to it. If any improvement is needed then it can help to make any decision and also improve it according to need.

5.3.1 Six Element Analysis

Process	System Roles					
	Human	Non Computing Hardware	Computin-g Hardware	Software	Database	Communi-cation & Network
Choose Products	Customer	N/A	Laptop/ Desktop Computer	XAMPP, Sublime Text, Chrome Browser	Live Server Database on MySQL	Wifi or Mobile data for the internet connectivity
Upload New product	Admin	N/A	Laptop/ Desktop Computer	XAMPP, Sublime Text, Chrome Browser	Live Server Database on MySQL	Wifi or Mobile data for the internet connectivity
Delete/ Edit products	Admin	N/A	Laptop/ Desktop Computer	XAMPP, Sublime Text, Chrome Browser	Live Server Database on MySQL	Wifi or Mobile data for the internet connectivity
Search product	Customer	N/A	Laptop/ Desktop Computer	XAMPP, Sublime Text, Chrome Browser	Live Server Database on MySQL	Wifi or Mobile data for the internet connectivity
Add product into a cart and Place order	Customer	N/A	Laptop/ Desktop Computer	XAMPP, Sublime Text, Chrome Browser	Live Server Database on MySQL	Wifi or Mobile data for the internet connectivity
Remove product from a cart	Customer	N/A	Laptop/ Desktop Computer	XAMPP, Sublime Text, Chrome Browser	Live Server Database on MySQL	Wifi or Mobile data for the internet connectivity

Table 5.3.1: Six Element analysis of “Famms”.

5.3.2 Feasibility Analysis

“Famms” e-commerce platform analyzed continuously in a comprehensive feasibility study before making any kind of decision. Decision taking on design,plan,and strategy is the main priority of this analysis. Feasibility study helps to make decisions against all boundaries and mainly work in weakness,strength,as well. When we were giving training for developement any kind of e-commerce we were taught to feasibility study to take decision accordingly when it comes to work against any weakness. So while making this platform it helps me. If the project does not work successfully then it can be redesigned or modified with the help of this study.

Technical Feasibility: This project's software, hardware, and other technical needs are evaluated in technical feasibility. This assesses how we intend to provide a product or service to clients. For an e-commerce platform how transportation, location, and the technology required to bring it together.
“Famms” was built with the Laravel framework. It aided in the development of a far more efficient and speedier website.

Operational Feasibility: Successful proposed project solves problems and Fulfill the requirements during the time being,problem analysis period, determining the operational feasibility. Basically depends on the project's developer and requires making a decision whether the system will be used after it is built and implemented. “Famms”, an e-commerce platform has been developed in this manner to operate so easily,so that acceptance increases.

Economic Feasibility: Economic feasibility is mainly where costs and benefits are taken care of. It does not only involve development cost but also production cost. On one hand it can make life easier for customers and on the other hand it will reduce the wasting of human energy,time ,crowd,traffic and what not.

5.3.3 Problem Solution Analysis

Developers main issue is to continuously under the process of changing requirements. Many requirements may discover while developing a website
Some steps may help to reduce the problems:
•Project’s benefits should be clear as well as scopes
•Assumption for any requirement is big NO
• It is important to have clear communication in every side
• Primary requirements should be note down
• Clients should be involve

Other issues rises and solved accordingly

•Password: With Laravel framework there were a issue with hash password and it is solved

•Price and Discounted Price: there was an issue created to show discounted price and it was also solved.

• Login Button: There was an issue with showing the login button because of layout ,after defining the button separately it works.

5.3.4 Effect and Constraints Analysis

“Famms” is the platform that can drive users to use it easily because of its design and smoothness. And keeping that in mind any user from any background can use it so easily. It does not take too long to end all the procedure to place order ,its dictation is so straightforward. People nowadays are more willing to use e-commerce platforms as they have a busy schedule and it is also beneficial to save time,reduce traffic,save human energy and so on. Manual process took longer to complete any order and which is taken care of by this e-commerce service so that waiting time decreases.

Unexpected things can delay your project so risk planning is needed while managing time and cost as well,but quality can’t be compromised.

5.4 System Design

5.4.1 UML Diagrams

UML outlines the progression of one movement to another. It helps to imagine the progression of user and admin.

User Activity Diagram shows the Customer progression of one movement to another.

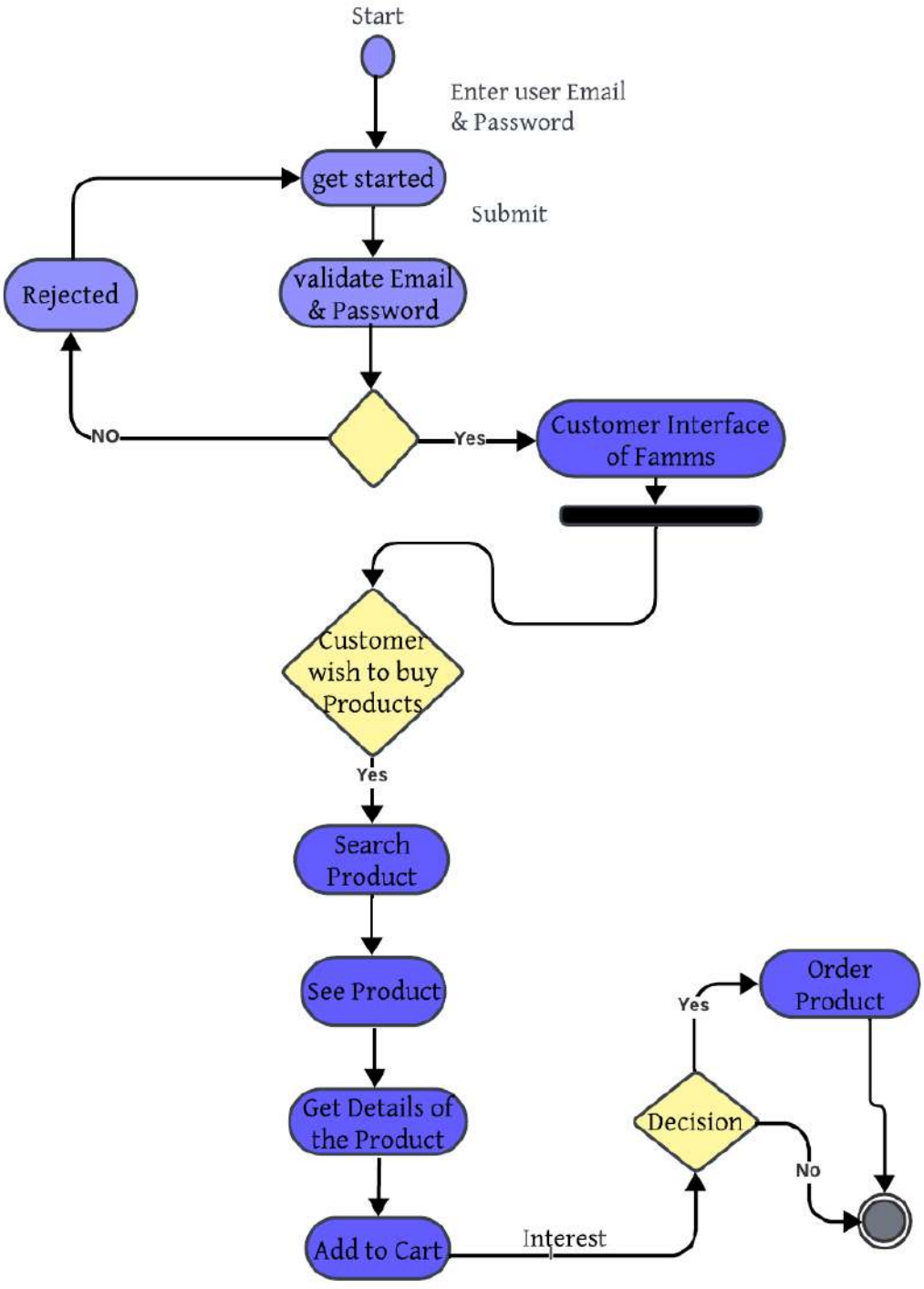


Figure 5.4.1.1: User Activity Diagram

Admin Activity Diagram shows the Customer progression of one movement to another.

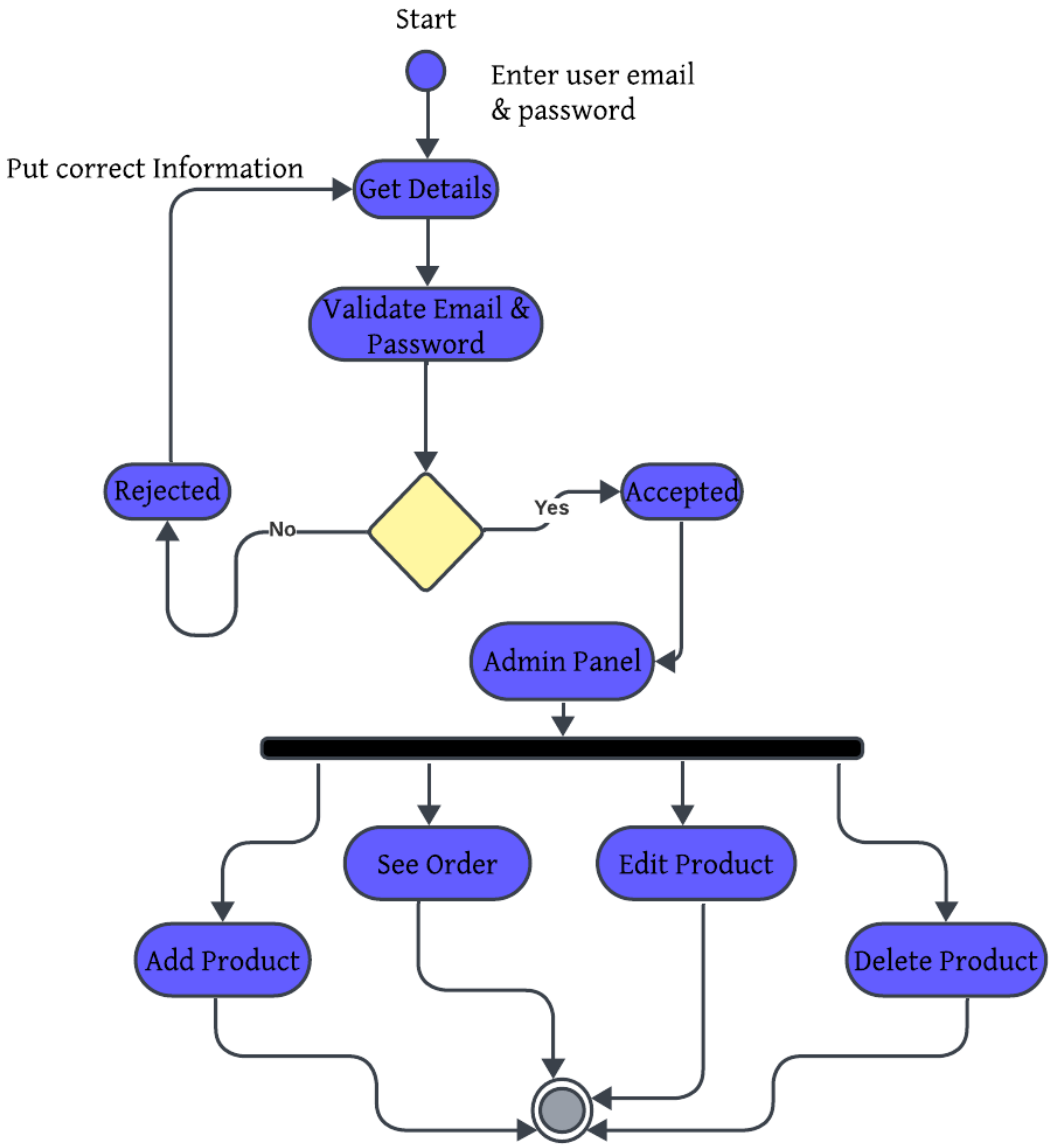


Figure 5.4.1.2:Admin Activity Diagram

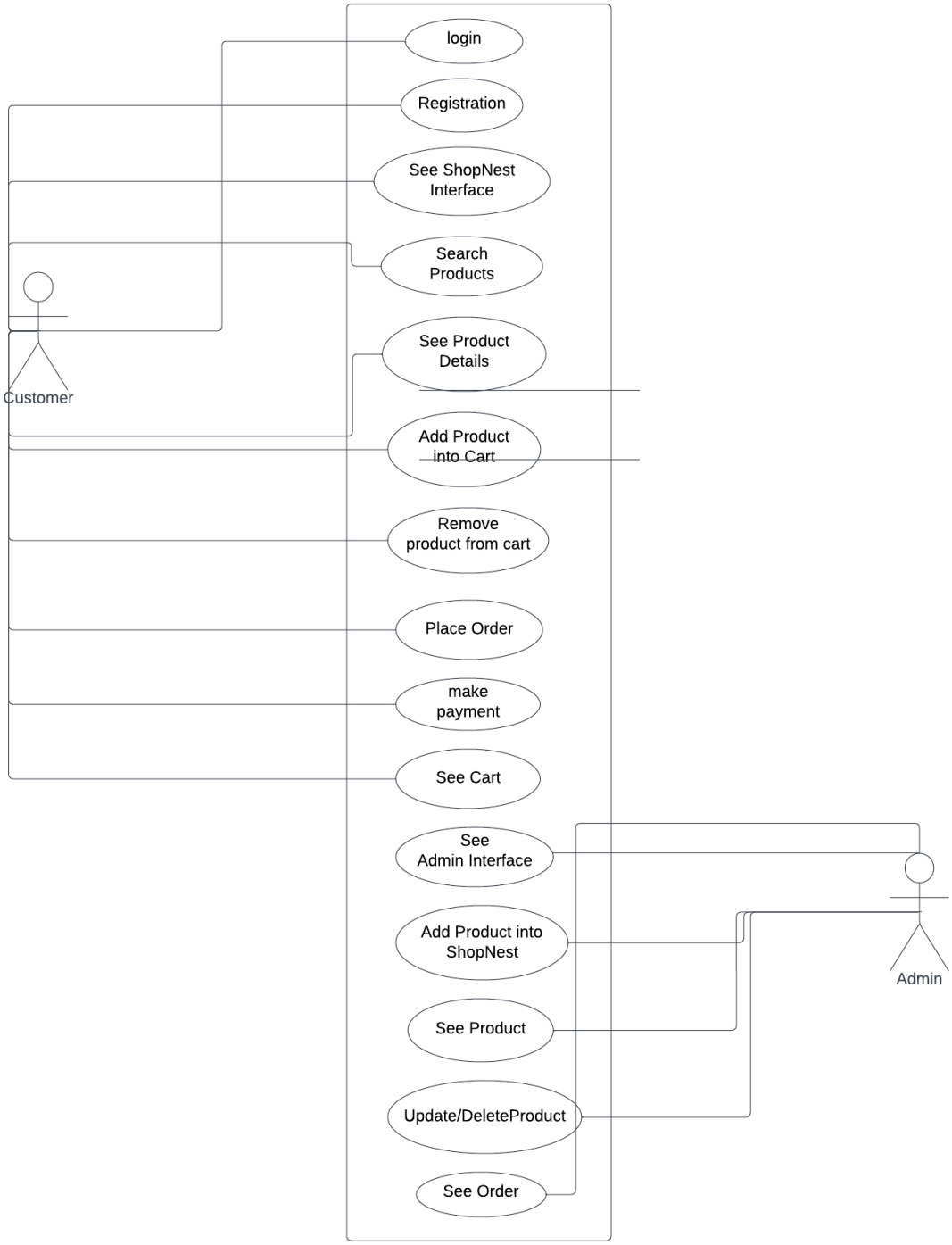


Figure: 5.4.1.3 Used Case Diagram of The System

5.4.2 Architecture

For this Project we use MVC architecture. MVC stands for Model,View,Controller. Web framework is a platform which is used for web applications and websites. Web Application framework includes well written pre components which helps us to work more neatly. It saves our time as well.

View presents the interface that will be shown to the user or admin. Controller is used to connect and view processes. After login, the user sees the views information.

5.5 Implementation

Planning & Roadmaps: To make the right decision to achieve the objective is strategy or planning. So before developing we were taught to make proper planning which includes time. Also Has to make roadmaps how to proceed furthermore. And all these are taken care of while developing this website
.
Technology Selection: It is another thing which helped to develop this website. Because with which template Laravel framework and this website is a great match have to decide also and other technologies. And this site is fully capable of customized.

Customer Insights: What will be more friendly to use from the customer side it is also maintained and provides best services to customers.

5.6 Testing

All the input and output features user and admin will receive from this project

5.6.1 Input

Admin/Customer login: This is where customers/admin give their email and password to further proceed.

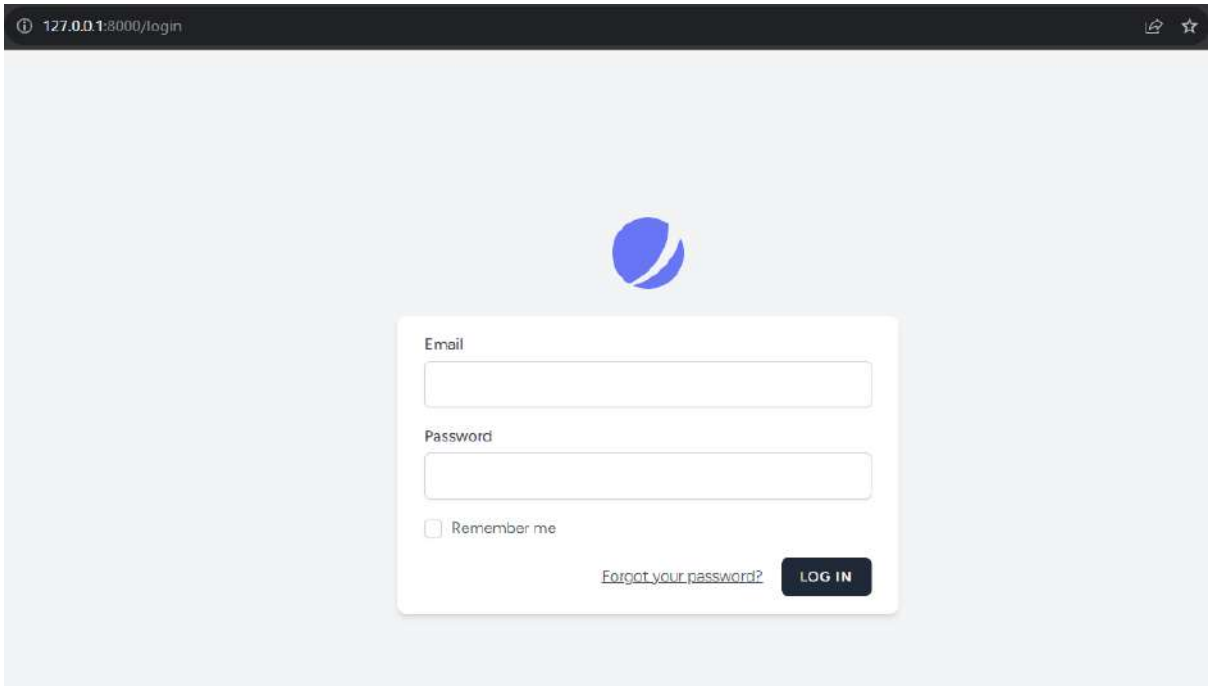


Figure 5.6.1.1: Admin/Customer Login Form

Admin/Customer Register: This is where one has to Register thyself as customer or admin.

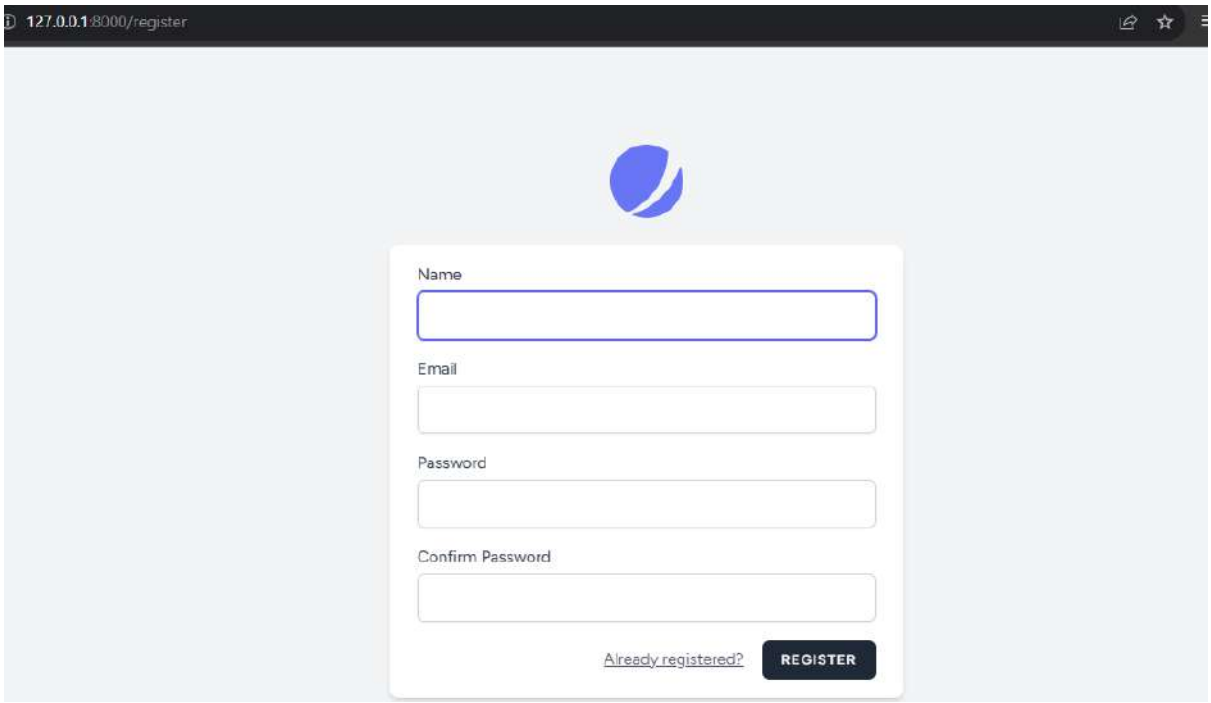


Figure 5.6.1.2: Admin/Customer Register Form

5.6.2 Output

Customer Home page: After login this the first page what will the customer see.

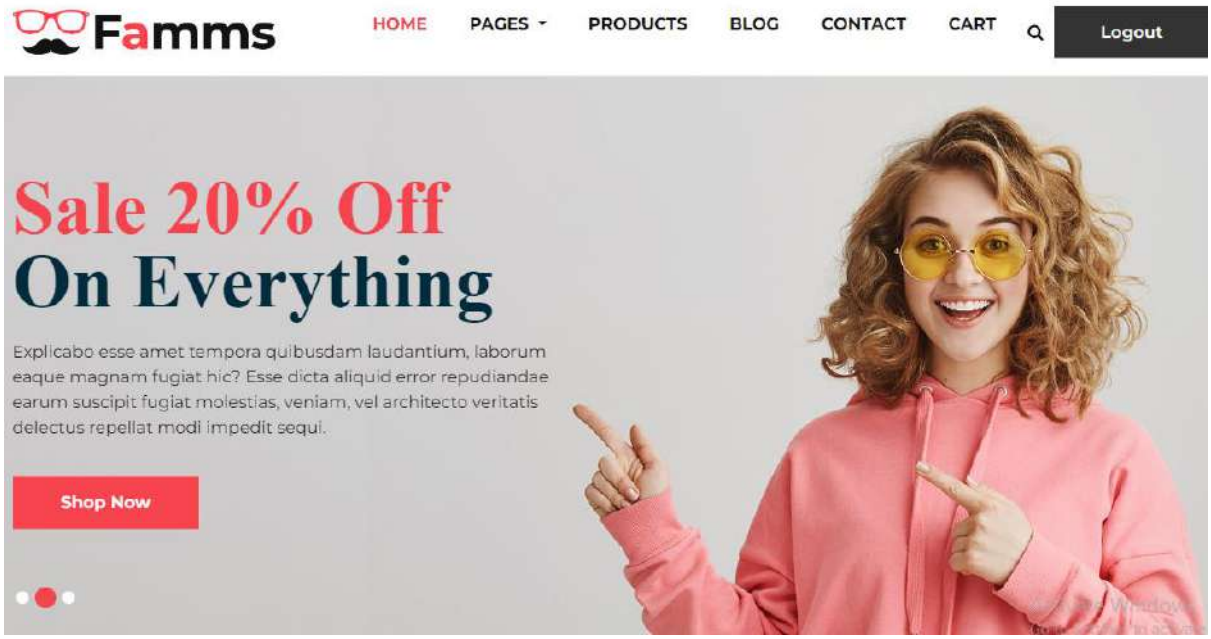


Figure 5.6.2.1: Customer Home Page

Customer Home page: After login this the first page what will the customer see.

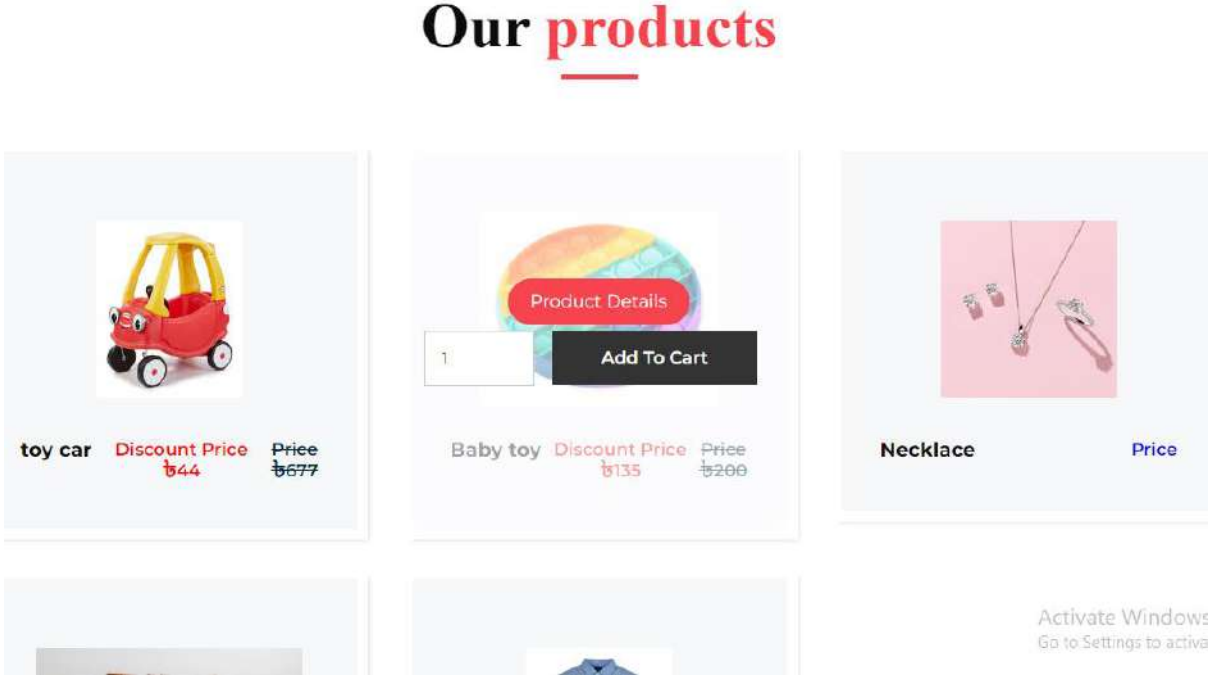


Figure 5.6.2.2: Customer Home Page

Product details:If a customer choose to see product details then they will be seen this page where they can see the product details

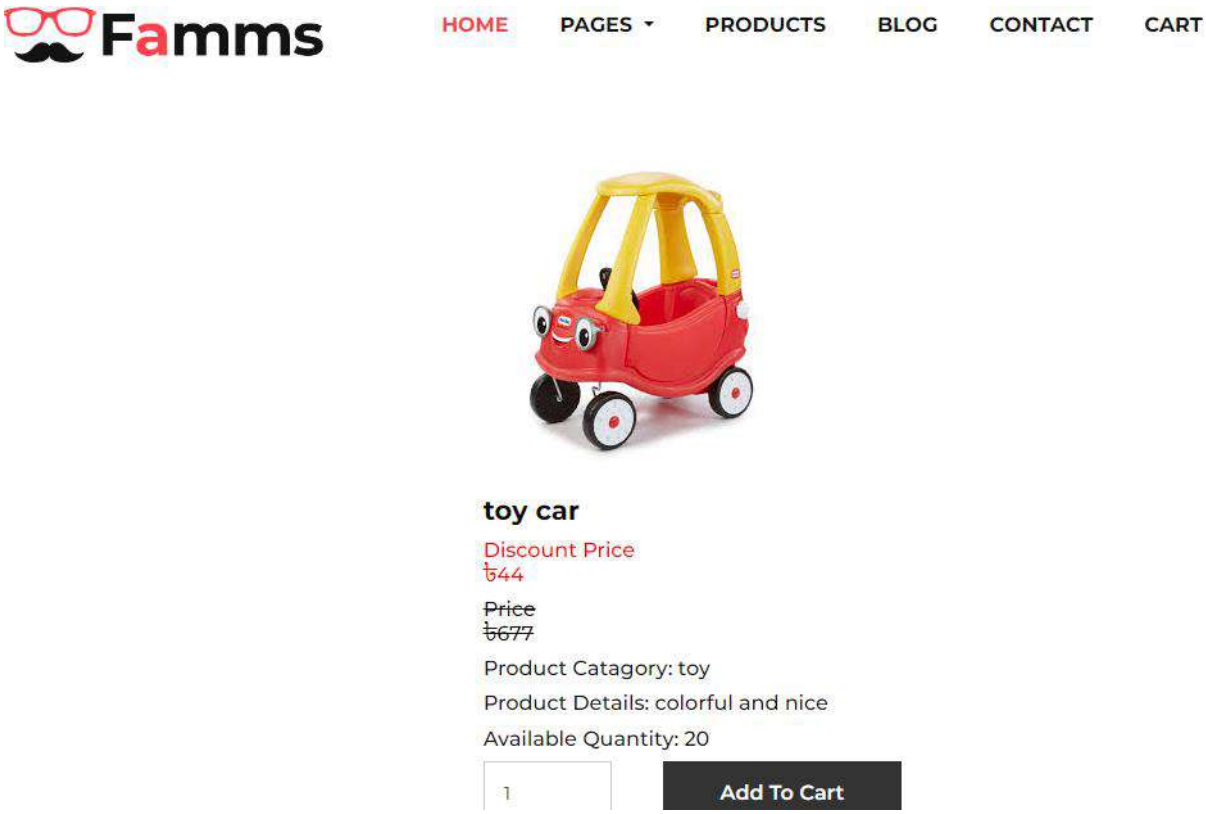


Figure 5.6.2.3: Customer Product Details Page

Cart: If a customer clicks the cart then they will be seen in this part where they can see what they add to their cart,they can also remove a product if they want. if they want to confirm the order they have the option to pay cash on delivery and pay via card.

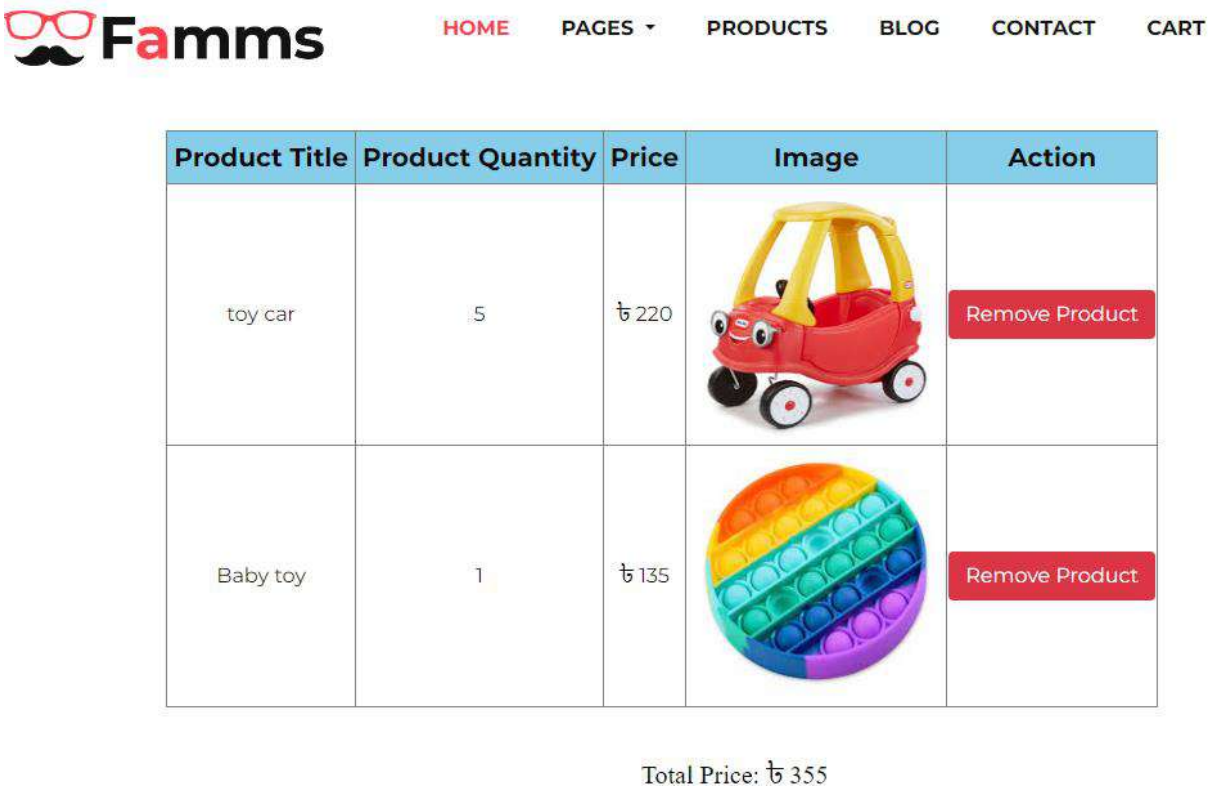


Figure 5.6.2.4: Customer View Cart Page

This is the page if customer choose to pay online then they have to fill up this form to pay online.

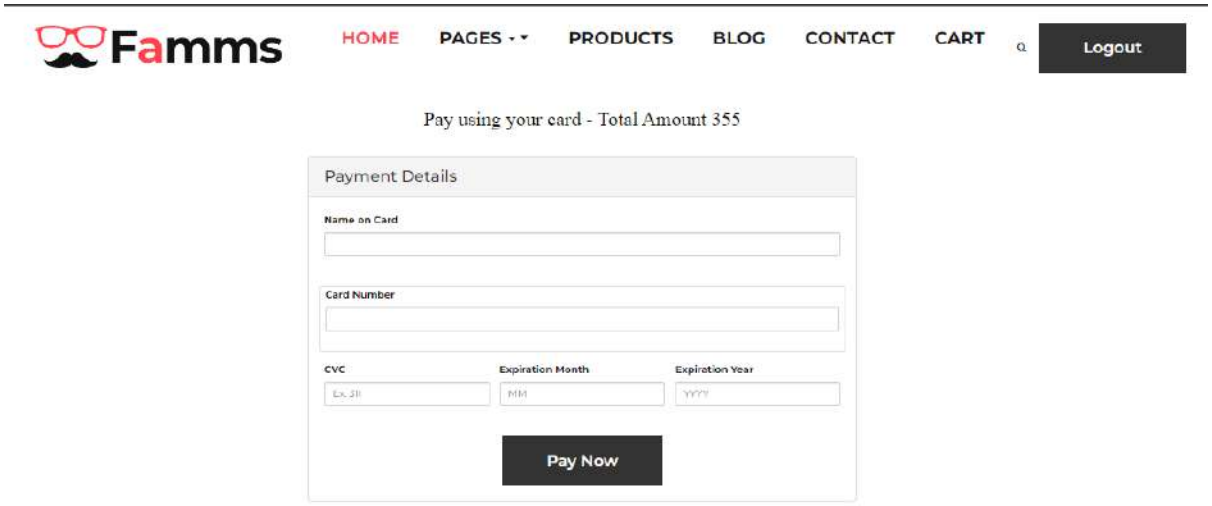


Figure 5.6.2.5: Customer payment page via card

Admin Dashboard: After successful login admin will be seen in this admin panel.

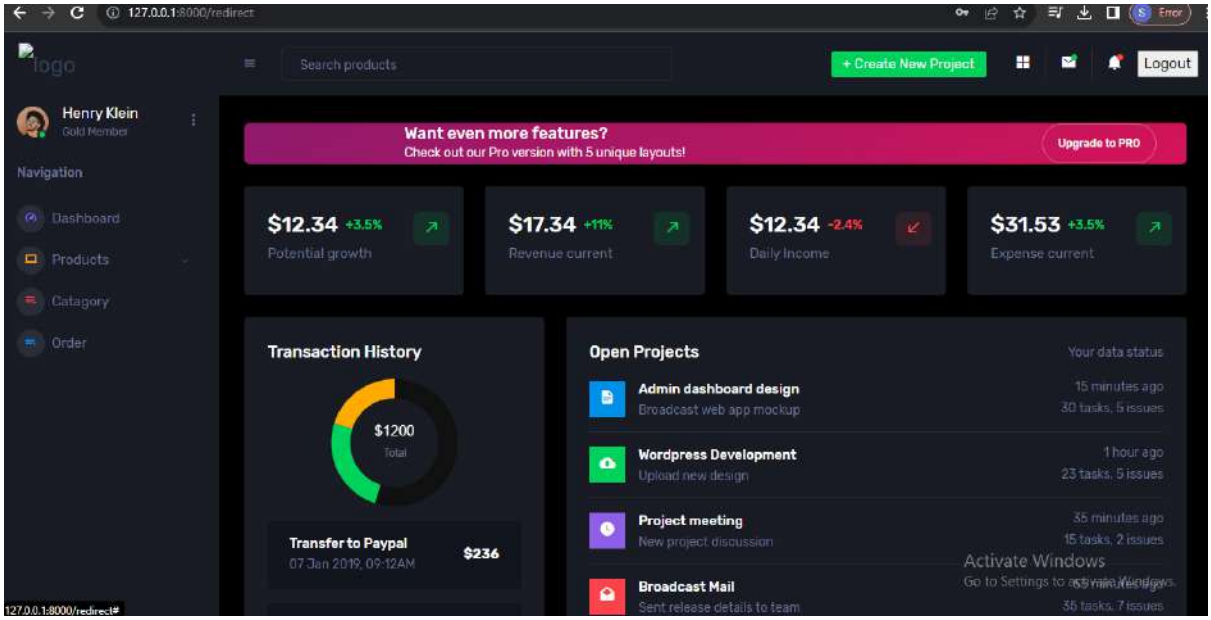


Figure 5.6.2.6:Admin Dashboard

Add Product: Admin can add product to the website by fulfilling all this.

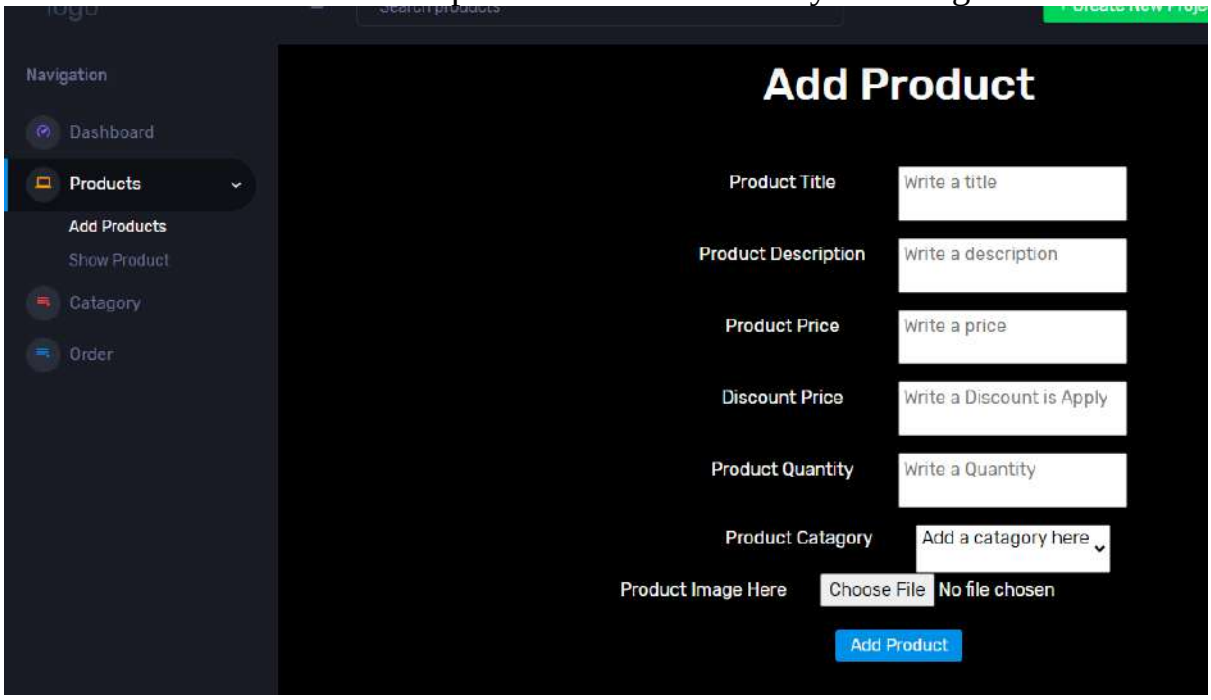


Figure 5.6.2.7:Admin Add Product page

Show Product : Admin can update/Delete product to the website from this page.



Figure 5.6.2.8:Admin Update/Delete Product page

Category: Admin can add category to the website by fulfilling all this.

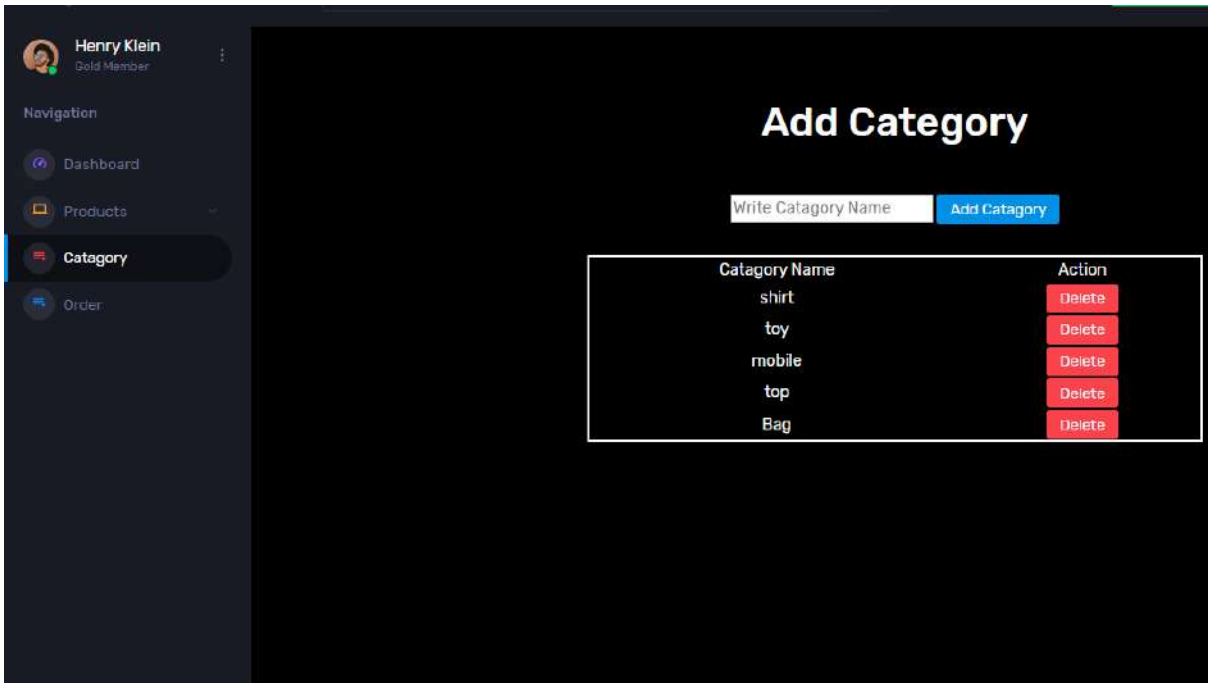


Figure 5.6.2.9:Admin Add Category page

Order: Admin can see order from this page.



Figure 5.6.2.10:Admin Order page

5.6.3 Designing Test Cases

Test case is to check and verify a particular feature of functionality of a system. It contains test steps,data,conditions to develop for a particular scenario. It includes various conditions.

5.6.4 Test Results

Test Case ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/ Fail
1	Check Customer Login with valid Data	Go to site http://127.0.0.1:8000/login Enter Email Enter Password Click Submit	Email= user@gmail.com Password =12345678	User should Login into the website	As Expected	Pass
2	Check Admin Login with valid Data	Go to site http://127.0.0.1:8000/login Enter Email Enter	Email= admin@gmail.com Password =12345678	User should Login into the Admin dashboard	As Expected	Pass

		Password Click Submit				

Table 5.6.4.1: Result of test cases

6

Chapter 6

Results & Analysis

“Famms” e-commerce platform’s main goal is to provide all services like products under one roof,so that it can make people's life easier and the main goal is to design it in such a way that any user can use it, mainly focusing on user friendly design. To help buyers to get the necessary products without facing any hassle to go to the market. This site reduces hassle,saves time,makes life easier and so on. People nowaday more into online shopping but it is difficult to find authentic sites where security can't compromise and also quality of service should be constant.

“Famms” are made keeping all those in mind so that people can use them easily. It also has the ability to record all customers,and their order details.

While doing this project many problems were faced ,one of the problems is layout. It sometimes causes server error and because of that the login button was not working but after defining the login button separately it fixed and worked properly.

From this website what was expected from Customer and Admin Panel is given below:

Customer Home page: After login this the first page what will the customer see.

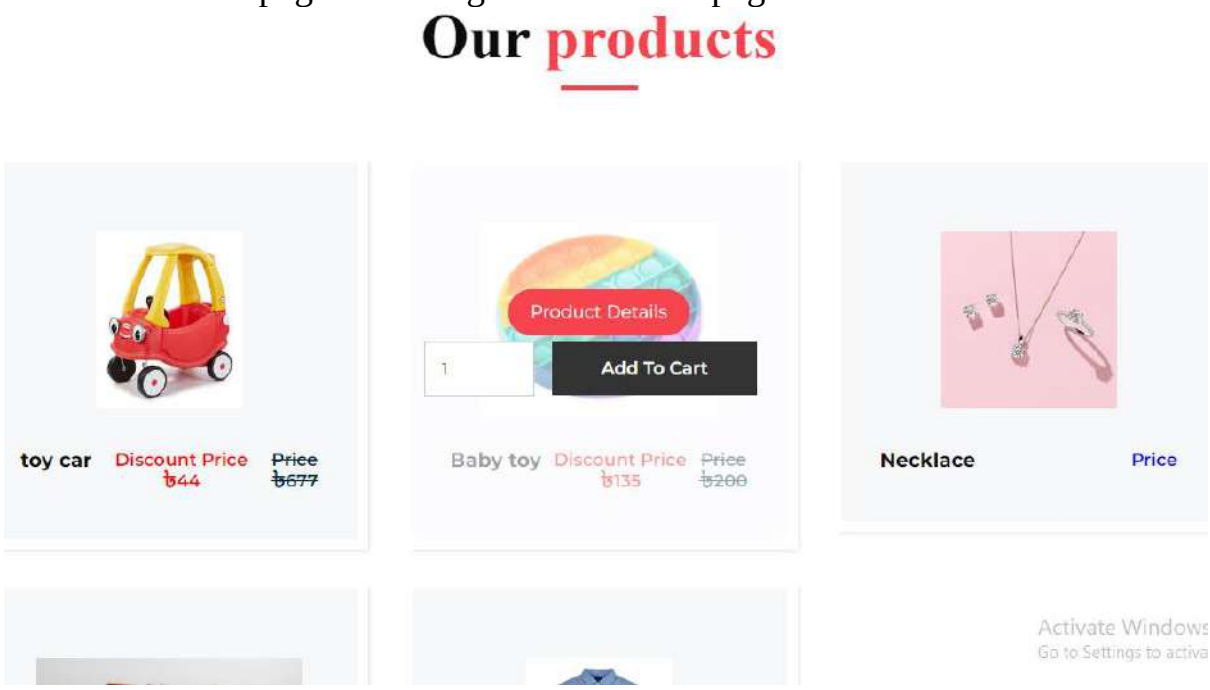


Figure 6.1: Customer Home Page

Product details:If a customer choose to see product details then they will be seen this page where they can see the product details

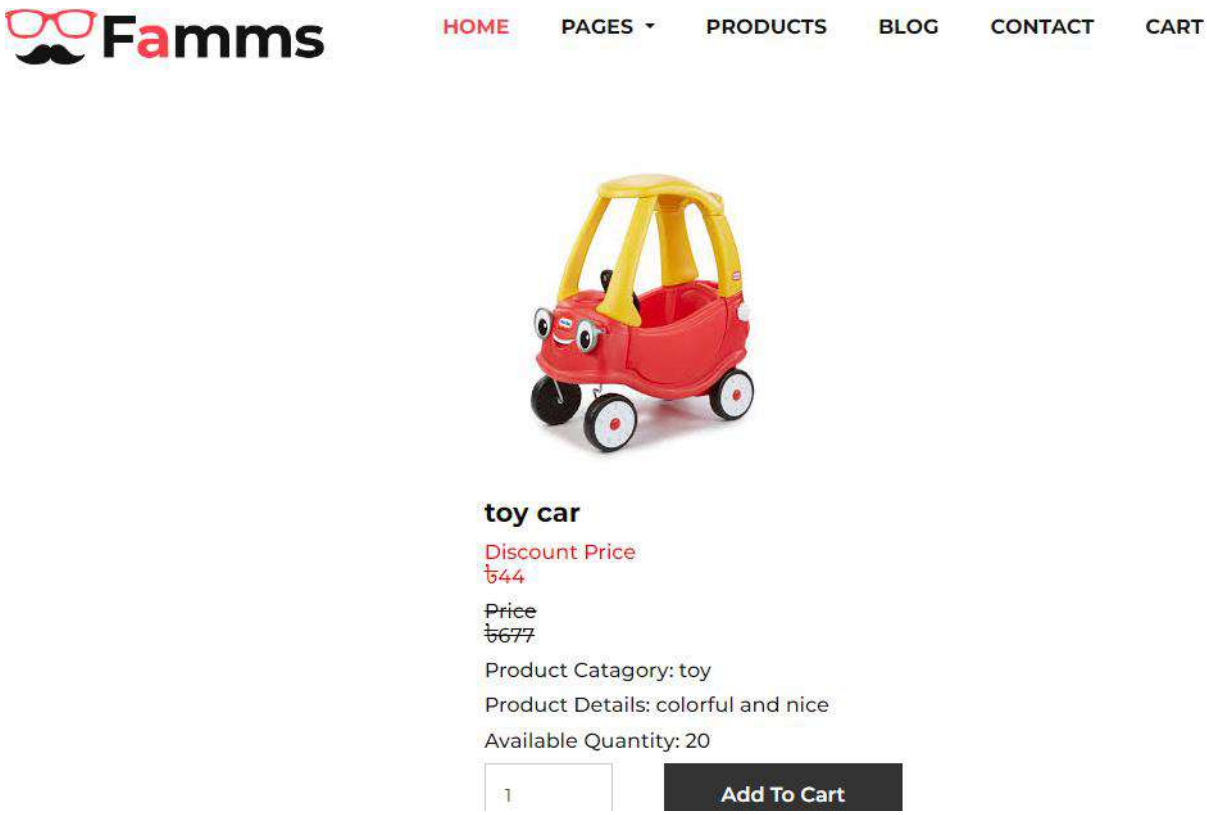


Figure 6.2: Customer Product Details Page

Cart: If a customer clicks the cart then they will be seen in this part where they can see what they add to their cart,they can also remove a product if they want. if they want to confirm the order they have the option to pay cash on delivery and pay via card.

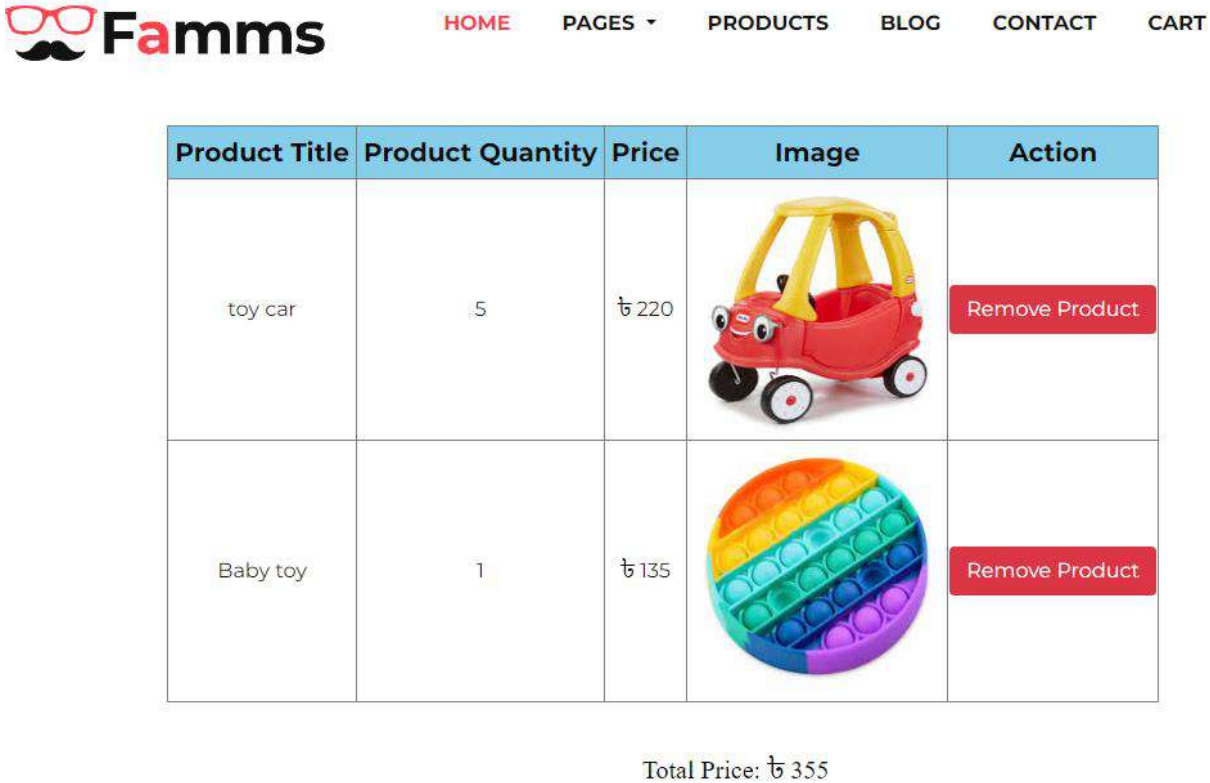


Figure 6.3: Customer View Cart Page

This is the page if customers choose to pay online then they have to fill up this form to pay online.

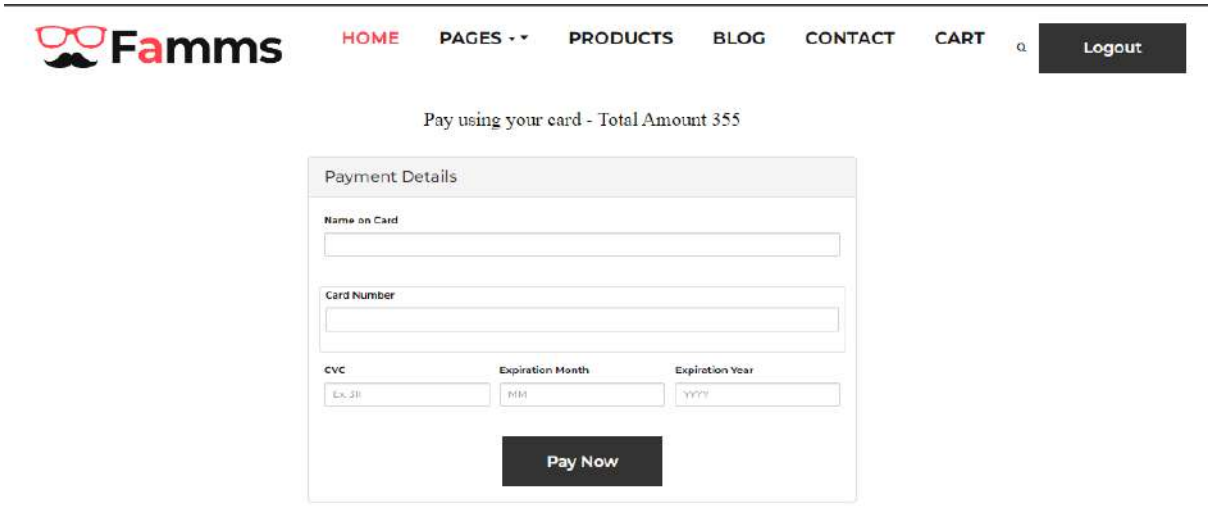


Figure 6.4: Customer payment page via card

Admin Dashboard: After successful login admin will be seen in this admin panel.

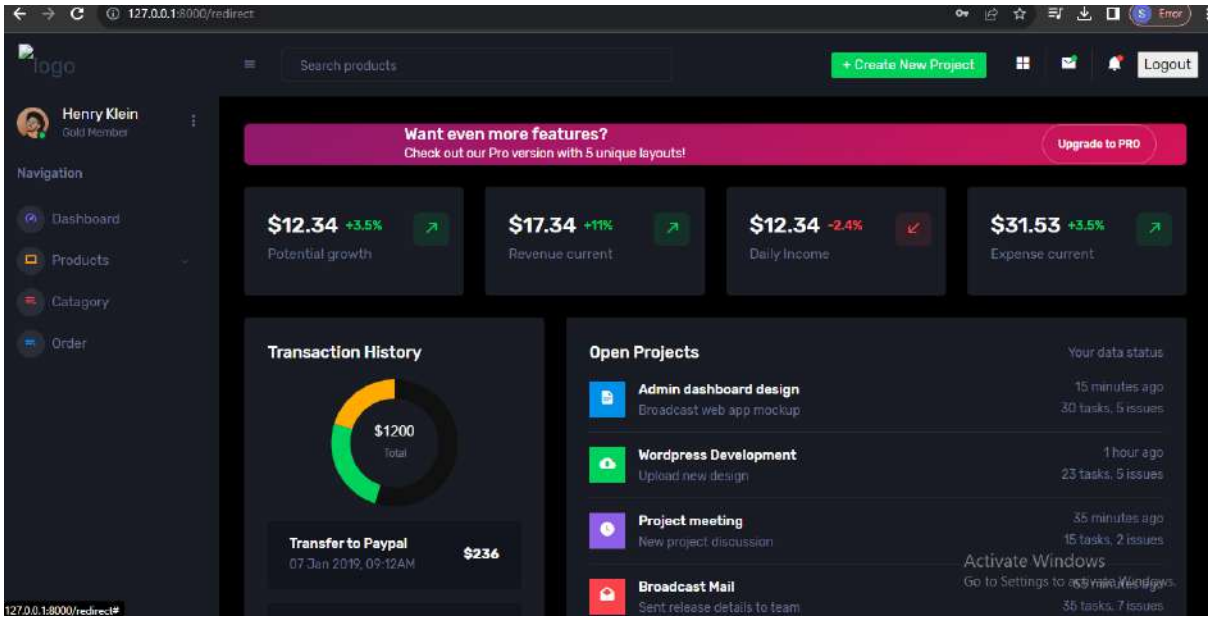


Figure 6.5:Admin Dashboard

Add Product: Admin can add product to the website by fulfilling all this.

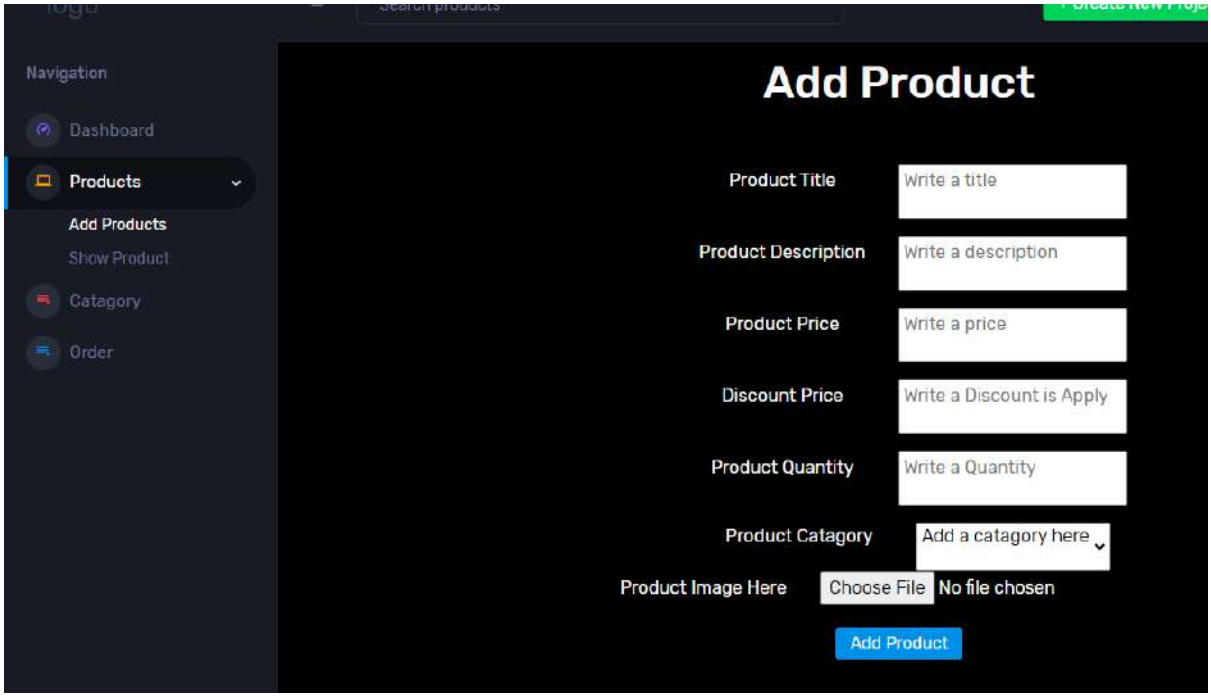


Figure 6.6:Admin Add Product page

Show Product : Admin can update/Delete product to the website from this page.

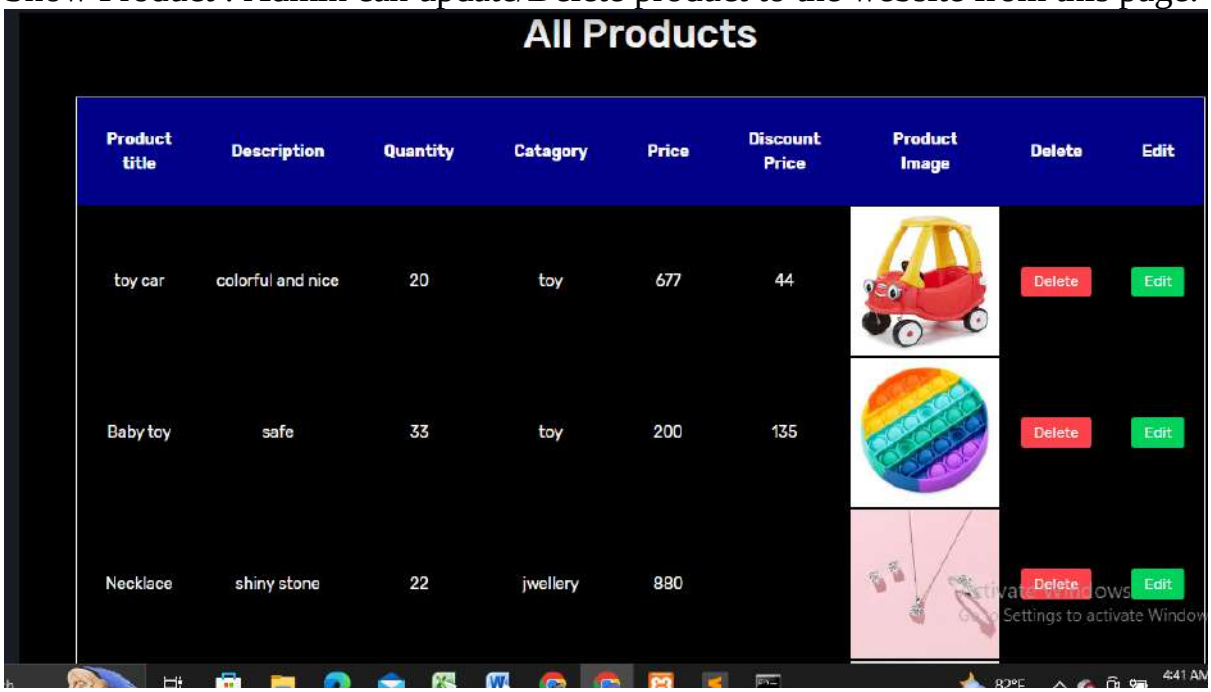


Figure 6.7:Admin Update/Delete Product page

Category: Admin can add categories to the website by fulfilling all this.

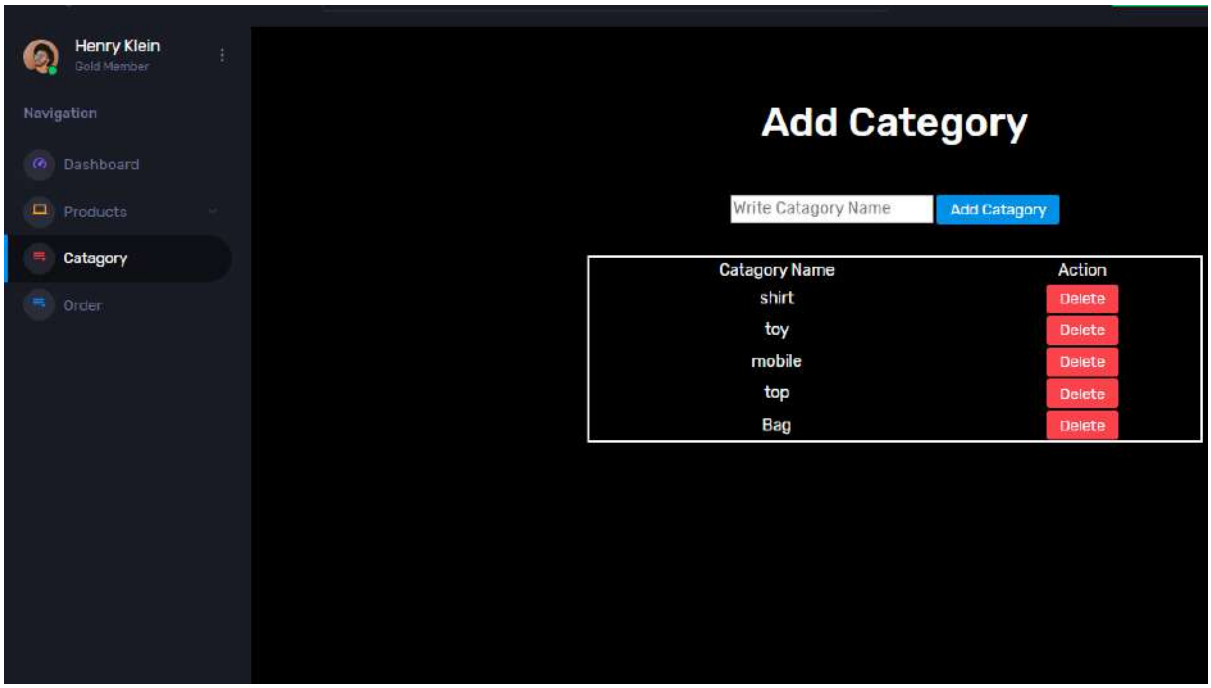


Figure 6.8:Admin Add Category page

Order: Admin can see order from this page.

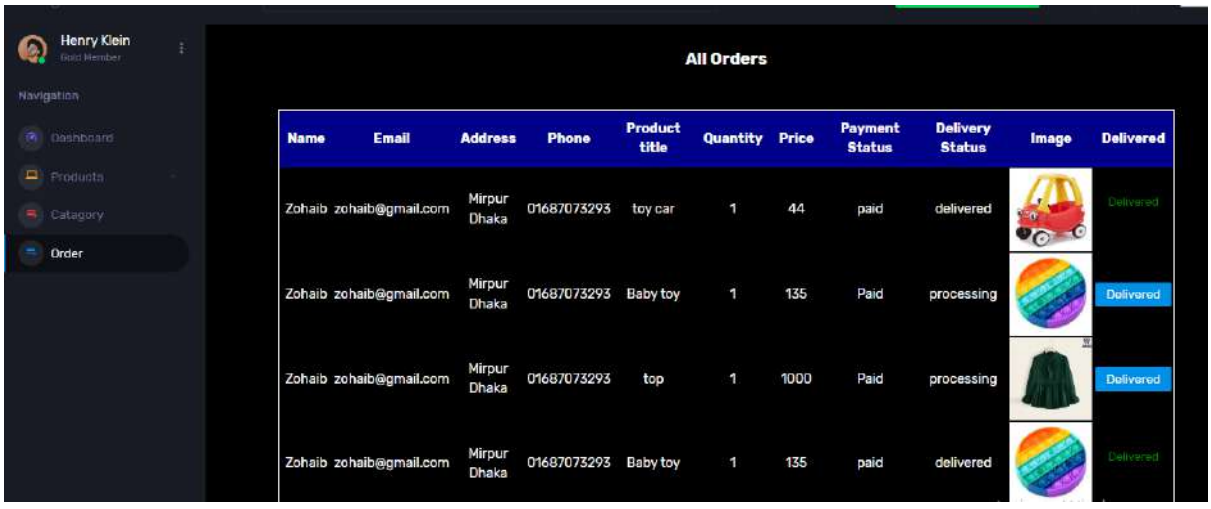


Figure 6.9:Admin Order page

User Interface Design where you have to be aware of user requirements and also a comfort zone so that the user once again wants to use it again. Understanding user ability ,objectives and so on. Simple interface is always appreciable ,and also the color combination is most important as it also creates a comfort zone while using it. Consistency is another thing which is taken care of while building up this website. UI creates a layout. Also Admin pamelis created such a way that it is easier to maintain and all parts like add product,Update or Delete product,Add Category,Order pages kept separately so that nothing clashes with each other.

Chapter 7

Project as Engineering Problem Analysis

This chapter gives the internal guidance of a project. Sustainability of the project,Social and Environmental Effects and analysis, Addressing Ethics and Ethical Issues altogether give this guidance.

7.1 Sustainability of the Project/Work

This is important to have the ability to maintain and update the project when it is necessary. From user end nowadays continuously changing the requirement and needs so it is very important to maintain that to sustain the service.
People are nowadays more dependent on internet based services as the work opportunity increases and it leads to busy schedules. And also people want convenience in every sphere of life so it won't decrease the demand of e-commerce platforms but it's on you why people will stick to your platform ,mainly updating on time based on needs.

Navigation System: It is important to make simple and easier navigation so that users don't face discomfort while browsing.
Deletion- Whatever data is not needed ,also unwanted plugins,categories,spam comments etc were deleted. Routes were written such that it can be modified if needed.

7.2 Social and Environmental Effects and Analysis

Social Effect- People nowadays are more dependent on e-commerce platforms to fulfill their need and use of it increases day by day. Main goal of “Famms” was to give all necessary products under one roof and also consumers willing to use that. And they don't have to waste their time by going to the market and it also saves human energy and they can give this time where their presence is more important.

Environmental effect- This technology also helps to minimize the traffic as people don't have to go out to purchase services,and it leads to less crowd ,also less transportation means less air pollution and so on.

7.3 Addressing Ethics and Ethical Issues

If technology makes life easier ,it is also possible it can lead to many problems. People Give their sensitive information like card details to make payment, their name,address etc and all of these have to be taken care of properly. Otherwise it can lead to any crime. So there should be some norms and ethics principles while working to build up any website.

Necessary data only collected like name,Email. Backend server and Database only accessible by developer. No external software can access the Database.Payment gateway is handled by stripe’s secret key features.

Chapter 8

Lesson Learned

This experience is totally new for me . From The very first day I tried to cope up and learn every detail,it was not helping me at all. Then I have started to learn strategically what leads to a plan before proceeding and the environment of the office helps me to be framed in the workplace. This learning period was not that difficult as I also learned how to deal with things in the workplace. And I think it will help me to develop my career.

8.1 Problems Faced During this Period

I have faced many problems related to work and also relate to the final project. But facing problems taught me to deal with problems in a workplace.

Technology: Adopting new technology in a corporate environment was a big challenge for me. I had to learn the technology framework.
Coping with Speed: It was very challenging to cope with work speed,it was slower performance of myself while learning new things. It was so tough to complete regular assignments as well as weekly deadlines.
Fixing Bugs: It was a very problematic zone. While writing codes there were several bugs and it has to be solved. Sometimes a bug leads to hours of hours of time to fix it.

8.2 Solution of those Problems

Facing problems taught me to deal with problems in a workplace. The solution I have followed to solve the problems I have faced is given below:

Technology: In the beginning it was really tough to adopt the new technology but then I have made a strategy to go plan wise.I have made a routine and fixed a time when I give time only to learn and practice those and it helps me so well.
Coping with Speed: First it gives me such a tough time but after learning the technology it was easier for me to cope up with the speed. And I have become habituated with this routine life and it helps me so much.

Fixing Bugs: While writing code I have become so cotious about naming,semicolons and also i have comment ou everything separately so that it will not take much time to fix or identify the problems and I have make the file names something meaningful so that i can easily know which file contains which portion of codes and it saves much time.

Chapter 9

Future Work & Conclusion

Future work involves what is done to be changed and also what more adds to the work. It can be the impact of new technology or needs of users or environments etc. And I will cover the experience at Appnap as an intern.

9.1 Future Works

This is the primary version of the e-commerce platform. Plenty of features need to be added and modified to make it a more reliable e-commerce platform. Many features needs to be add and they are:

- There is no any Delivery system developed in this "Famms" website ,which is one of the important parts of this website.
- Add review option of product ,so that before purchasing the product customer can make a decision according to it.
- Separate Category zone for customer to find the product according to their need and it also helps to see other products relative to their particular search.
- Showing delivery status time to time to the customer.

9.2 Conclusion

This short period of corporate life gives me so many experiences which will help to improve my career in this web developing field and also guide me how to work,behave,make decisions,and interact in the workplace. I have met so many people here,and from them I learned a lot of new things ase well I have learned how to interact with people in a corporate environment. I have learned about time management,how to adapt to a new environment,and how to work under the supervision of someone in corporate life and also under a lot of pressure and tight deadlines. In my university life I have done so many projects but it was different then this. In university I was continuously under one faculty who gave me direction on how to complete the project but in corporate life I'm responsible all alone for my work and there I need to fulfill my responsibility and also learn all alone.

Though my supervisor Shahidullah Kaiser and Rakib Ahmed always give me guidance, it was quite different from the university environment.
During this period I have learned the PHP Laravel framework and it was given more time,as this was the main component to develop this “Famms” Ecommerce platform. I have learned so many tools and techniques in this internship period and it will help me to build my career in web developing sites.
This internship period provides guidance for the professional life of a frontend and backend developer. And this time I tried to learn and gain knowledge about this field.
Lastly I would like to thank both Supervisor Dr.Md.Tarek Habib sir and Shahidullah Kaiser and Rakib Ahmed for making my internship period so easier. It was a great learning experience.
Thank you Appnap for giving me this opportunity and I really hope to get in touch with whoever I have met in this period.

Bibliography

[1] H. Gantt, “Gantt chart,” 2015.

[2] A. Aalam, S. Mishra, S. Sharma, and R. Gupta, “Study amp; development of ecommerce website,” 2008.

[3] J. B. Ebbesen and A. Hope, “Re-imagining the iron triangle: embedding sustainability into project constraints,” PM World Journal, vol. 2, no. III, 2013

[4] C. S. Wasson, System analysis, design, and development: Concepts, principles, and practices, vol. 22. John Wiley & Sons, 2005.

[5] R. Abdur, A conceptual model and web platform for discovering digital heroes from stack overflow developer community forum using a data mining approach. PhD thesis, Moi University, 2018.

[6] M. S. Ackerman, “The intellectual challenge of cscw: The gap between social requirements and technical feasibility,” Human–Computer Interaction, vol. 15, no. 2-3, pp. 179–203, 2000.

An Undergraduate Internship/Project on E-Commerce Website

By

SANZIDA NADIA

Student ID: **1910207**

Summer, 2023

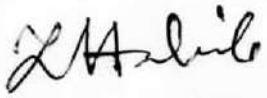
Consent from Supervisor

The student modified the internship final report as per the recommendations made by his/her academic supervisor and/or panel members during and/or before final viva, and the department can use this version for archiving as well as the OBE course material for CSE499.

This internship report is checked with Turnitin and/or Ithenticate plagiarism checker, and the score is:

Turnitin Score (%) : 8

Ithenticate Score (%) :



(Signature of the Supervisor)

Dr. Md. Tarek Habib

Assistant Professor

Department of Computer Science & Engineering

Independent University, Bangladesh