

SHOPPE
(online electronics & fashion store)

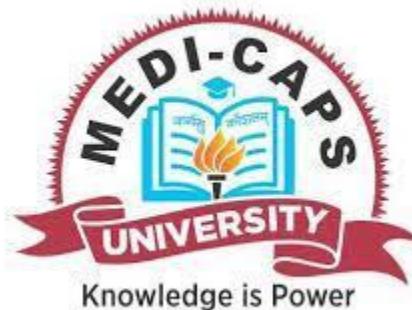
A Project-II Report

Submitted in partial fulfillment of requirement of the
Degree of

**BACHELOR OF TECHNOLOGY in COMPUTER
SCIENCE & ENGINEERING**

BY
1. Abhinn Soni - EN18CS301007
2. Ankita Yadav - EN18CS301040

Under the Guidance of
Mr. Ashish Kumawat



Department of Computer Science & Engineering
Faculty of Engineering
MEDI-CAPS UNIVERSITY, INDORE- 453331

APRIL 2022

Report Approval

The project work “**SHOPPE**” is hereby approved as a creditable study of an engineering/computer application subject carried out and presented in a manner satisfactory to warrant its acceptance as prerequisite for the Degree for which it has been submitted.

It is to be understood that by this approval the undersigned do not endorse or approve any statement made, opinion expressed, or conclusion drawn therein; but approve the “Project Report” only for the purpose for which it has been submitted.

Internal Examiner

Name: -**Mr. Ashish Kumawat**

Designation - Professor

Affiliation

External Examiner

Name:

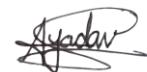
Designation

Affiliation

Declaration

I/We hereby declare that the project entitled “**SHOPPE**” submitted in partial fulfillment for the award of the degree of Bachelor of Technology in ‘**Computer Science & Engineering**’ completed under the supervision of **Mr. Ashish Kumawat, Professor , Computer Science & Engineering**, Faculty of Engineering, Medi-Caps University Indore is an authentic work.

Further, I/we declare that the content of this Project work, in full or in parts, have neither been taken from any other source nor have been submitted to any other Institute or University for the award of any degree or diploma.


10/05/22

10/05/22

Abhinn Soni

Ankita Yadav

Certificate

I/We, **Mr. Ashish Kumawat** certify that the project entitled “ **SHOPPE** ” submitted in partial fulfillment for the award of the degree of Bachelor of Technology by **Abhinn Soni & Ankita Yadav** is the record carried out by him/them under my/our guidance and that the work has not formed the basis of award of any other degree elsewhere.

Mr. Ashish Kumawat

Computer Science & Engineering

Medi-Caps University, Indore

Mrs. Sonam Verma

Indvibe Infotech pvt.ltd

Dr. Pramod S. Nair

Head of the Department

Computer Science & Engineering

Medi-Caps University, Indore

Offer Letter



IndVibe Infotech Pvt Ltd

Iso 9001:2015 certified company

Internship Letter

IndVibe InfoTech Pvt Ltd– January-July 2022 Academic Session

Dear Abhinn Soni
Congratulations!

Date 15-01-2022

We are glad to welcome you to the growing student community at IndVibe InfoTech Pvt Ltd. –A Software Development Company that has trained over 35+ Thousand students in the IT Sector and in many job oriented fields.

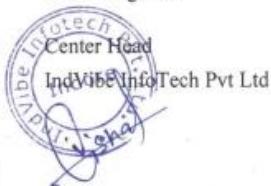
Based on your performance during IndVibe InfoTech Pvt Ltd Process -you have been provisionally selected for the internship in Python with Django Framework.

IndVibe InfoTech Pvt Ltd, with its world class infrastructure and expert Development team, would offer you an unparalleled learning environment that would enhance your skills and knowledge for a great career start.

We expect that, you as a student/Trainee, during your tenure at IndVibe InfoTech Pvt Ltd, would abide by the rules, norms and obligations of IndVibe InfoTech Pvt Ltd and contribute to build a positive and lasting impression about yourself.

Wishing you a great future in the IT Industry and looking forward to seeing you at IndVibe InfoTech Pvt Ltd.

Warm Regards

Center Head
IndVibeInfoTech Pvt Ltd


302 B, 3rd Floor Rajat Complex, 18 Kibey Compound Near Madhumilan Square, Indore
indvibeinfotech@gmail.com
Mob. : 9098884202, 9926651477, 9993988368

Offer Letter



IndVibe Infotech Pvt Ltd

Iso 9001:2015 certified company

Internship Letter

IndVibe InfoTech Pvt Ltd– January-July 2022 Academic Session

Dear Ankita Yadav
Congratulations!

Date 30-01-2022

We are glad to welcome you to the growing student community at IndVibe InfoTech Pvt Ltd. –A Software Development Company that has trained over 35+ Thousand students in the IT Sector and in many job oriented fields.

Based on your performance during IndVibe InfoTech Pvt Ltd Process -you have been provisionally selected for the internship in Python with Django Framework.

IndVibe InfoTech Pvt Ltd, with its world class infrastructure and expert Development team, would offer you an unparalleled learning environment that would enhance your skills and knowledge for a great career start.

We expect that, you as a student/Trainee, during your tenure at IndVibe InfoTech Pvt Ltd, would abide by the rules, norms and obligations of IndVibe InfoTech Pvt Ltd and contribute to build a positive and lasting impression about yourself.

Wishing you a great future in the IT Industry and looking forward to seeing you at IndVibe InfoTech Pvt Ltd.

Warm Regards



Completion Letter



IndVibe Infotech Pvt Ltd

Iso 9001:2015 certified company

Internship Letter

IndVibe InfoTech Pvt Ltd– January-July 2022 Academic Session

Dear Abhinn Soni

Date 20-04-2022

Congratulations!

We are glad to welcome you to the growing student community at IndVibe InfoTech Pvt Ltd. –A Software Development Company that has trained over 35+ Thousand students in the IT Sector and in many job oriented fields.

Based on your performance during IndVibe InfoTech Pvt Ltd Process -you have been successfully Completed the internship in Python with Django framework with project **E-commerce website** from 15-01-2022 to 20-04-2022.

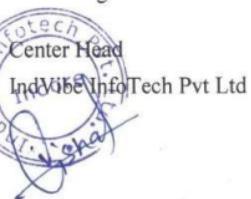
IndVibe InfoTech Pvt Ltd, with its world class infrastructure and expert Development team, would offer you an unparalleled learning environment that would enhance your skills and knowledge for a great career start.

We expect that, you as a student/Trainee, during your tenure at IndVibe InfoTech Pvt Ltd, would abide by the rules, norms and obligations of IndVibe InfoTech Pvt Ltd and contribute to build a positive and lasting impression about yourself.

Wishing you a great future in the IT Industry and looking forward to seeing you at IndVibe InfoTech Pvt Ltd.

Warm Regards

Center Head
IndVibe InfoTech Pvt Ltd

A handwritten signature in blue ink, appearing to read "Abhinn Soni".

302 B, 3rd Floor Rajat Complex, 18 Kibey Compound Near Madhumilan Square, Indore
indvibeinfotech@gmail.com
Mob. : 9098884202, 9926651477, 9993988368

Completion Letter



IndVibe Infotech Pvt Ltd

Iso 9001:2015 certified company

Internship Letter

IndVibe InfoTech Pvt Ltd– January-July 2022 Academic Session

Dear Ankita Yadav

Date 30-04-2022

Congratulations!

We are glad to welcome you to the growing student community at IndVibe InfoTech Pvt Ltd. –A Software Development Company that has trained over 35+ Thousand students in the IT Sector and in many job oriented fields.

Based on your performance during IndVibe InfoTech Pvt Ltd Process -you have been successfully Completed the internship in Python & Django with project **E-commerce website** From 01-02-2022 to 30-04-2022.

IndVibe InfoTech Pvt Ltd, with its world class infrastructure and expert Development team, would offer you an unparalleled learning environment that would enhance your skills and knowledge for a great career start.

We expect that, you as a student/Trainee, during your tenure at IndVibe InfoTech Pvt Ltd, would abide by the rules, norms and obligations of IndVibe InfoTech Pvt Ltd and contribute to build a positive and lasting impression about yourself.

Wishing you a great future in the IT Industry and looking forward to seeing you at IndVibe InfoTech Pvt Ltd.

Warm Regards

Center Head
IndVibe InfoTech Pvt Ltd



Acknowledgement

I would like to express my deepest gratitude to Honorable Chancellor, **Shri R C Mittal**, who has provided me with every facility to successfully carry out this project, and my profound indebtedness to **Prof. (Dr.) Dileep K Patnayak**, Vice Chancellor, Medi-Caps University, whose unfailing support and enthusiasm has always boosted up my morale. I also thank **Prof. (Dr.) D K Panda**, Pro Vice Chancellor, **Dr. Suresh Jain**, Dean Faculty of Engineering, Medi-Caps University, for giving me a chance to work on this project. I would also like to thank my Head of the Department **Dr. Pramod S. Nair** for his continuous encouragement for betterment of the project.

I express my heartfelt gratitude to my **External Guide, Mrs. Sonam Verma**, Project Lead, Honeywell Technology Solutions Lab Pvt. Ltd as well as to my Internal Guide, **Mr. Ashish Kumawat** Professor, Department of Computer Science Engineering, MU, without whose continuous help and support, this project would never have reached the completion.

It is their help and support, due to which we became able to complete the design and technical report. Without their support this report would not have been possible.

Abhinn Soni

Ankita Yadav

B.Tech. IV Year

Department of Computer Science & Engineering

Faculty of Engineering

Medi-Caps University, Indore

Abstract

This project deals with developing an ‘E-commerce Website’ titled as ***SHOPPE***. It provides the user with a list of the various products available for purchase in the store. This project deals with many useful functionality which improves the experience of a user to buy different products.

Online Shopping plays a great importance in the modern business environment. ***SHOPPE*** - Electronics & Fashion Store has opened the door of opportunity and advantage to the firms. This paper analyzed the different issues of online shopping. The research aims to be theoretical . Contribution in understanding the present status of online shopping.

The Study Discusses the consumers' online shopping behaviors. Paper also identifies the problems faced by the consumers when they want to accept internet shopping. Present paper is an expressive study based on the detailed review of earlier pertinent studies related to the various concepts of online shopping to discover the concept of online shopping. Solitude and safety risk emerge regularly as a reason for being cautious about internet shopping. Shopping convenience, information seeking, social contact, and diversity affects the consumer attitude towards online shopping. The impossibility of product testing, problems with complaints, product return and missus of personal data are the main doubts regarding on-line shopping

TABLE OF CONTENTS

Chapter No		Page No.
	Report Approval	ii
	Declaration	iii
	Certificate	iv
	Offer Letter of Internship	v-vi
	Completion Certificate	vii-viii
	Acknowledgement	ix
	Abstract	x
	Table of Contents	xi
	List of figures	xiii
	List of Tables	xiv
	Abbreviations	xiv
<u>Chapter 1</u>	<ul style="list-style-type: none"> → 1.1 Introduction → 1.2 Literature Review → 1.3 Objectives → 1.4 Significance → 1.5 Research Design 	1 2 4 5 6
<u>Chapter 2</u>	<ul style="list-style-type: none"> 2.1 Procedure Adopted 2.2 UML Diagrams <ul style="list-style-type: none"> → 2.2.1 Use Case Diagram → 2.2.2 Activity Diagram(User Side)..... → 2.2.3 Activity Diagram/Admin Side)..... → 2.2.4 Sequence Diagram..... → 2.2.5 ERD Diagram..... → 2.2.6 Dataflow Diagram..... 2.3 Scope And Limitations..... 	7 9 10 11 12 13 13 14

Chapter 3	3.1 Implementation Methodology..... 3.2 System Analysis..... → 3.2.1 Requirement Analysis & Specification..... ❖ 3.2.1.1 Functional Requirements..... ❖ 3.2.1.2 Non Functional Requirements..... → 3.2.2 Feasibility Study..... 3.3 System Specification..... 3.4 Project Screenshots..... 3.5 Result and Conclusion.....	17 18 18 19 20 21 23 24 34
Chapter 4	4.1 Future Scope Appendix Bibliography	35 36 39

List of Figures

Figure No.	Title	Page No.
1	Incremental Model	7
2	Use Case Diagram	9
3	Activity Diagram (User Side)	10
4	Activity Diagram (Admin Side)	11
5	Sequence Diagram	12
6	Entity Relationship Diagram	13
7	Data Flow Diagram	13
8	MVC Architecture	17
9	Customer/User Registration Page	24
10	Registered user shown at admin side	24
11	Login Page	25
12	User Profile Page	25
13	Address details added	26
14	Shoppe Homepage	26
15	Product category option at navbar	27
16	Products available	27
17	Product selected to add to the cart	28
18	Product added to the cart	28
19	Paypal login window	29
20	Payment options	30
21	Payment processing	30
22	Customer's paypal balance	31
23	Payment summary	31
24	Transaction, payment details of order at seller's side	32
25	Transaction Log (Seller's Side)	33

List of Tables

1. **Table 1** : Table of Contents.
2. **Table 2** : Hardware Requirements.
3. **Table 3** : Software Requirements.
4. **Table 4** : Technologies Used.
5. **Table 5** : Bibliography.

Abbreviations

1. **ERD** : Entity relationship Diagram
2. **DFD** : Data Flow Diagram
3. **HTML** : Hypertext markup language
4. **AJAX** : Asynchronous Javascript And Xml
5. **CSS** : Cascading style sheets
6. **SQL** : Structured Query Language
7. **IDE** : Integrated Development Environment
8. **UML** : Unified Modeling Language

CHAPTER 1

1.1 Introduction

This project deals with developing an '**E-commerce Website**'. It provides the user with a list of An eCommerce website is an information technology method in which traders, businesses/distributors/marketers can sell products/services and the customer can purchase on that website electronically by using the internet on the mobile and computer

It means an e-commerce website is an online shop. e means electronic. Commerce means business. Website means the group of HTML web pages that is created to market/sell information/product/services.

An E-commerce website requires an appropriate strategy of successful design and implementation. Everything is required to plan from scratch to the end of the website. The e-commerce sector is seeing exponential growth thus a new option will easily be part of this regatta of commercial websites. The e-commerce website will feature the online shopping facility of various Electronics & Fashion products under a single web space.

The proposed web application will allow business personnel to make their total business using it and increase their reachability thousands of times more than today they have, over the internet. It will allow multiple shopping vendors to sell their products online. The product management in the system will be done in the form of categories. The safety of information is the main requirement of the system and will be handled according to that. To formulate this project the first task is to do cost estimation. For probabilistic assessment of the project cost estimation is required. Cost estimation covers the accurate; estimations of cost and effort required for the project.

As a project manager and developer as well, its estimates are defined at an early stage in the project. Cost estimation in an application development project includes the set of procedures and techniques that will be utilized, required to be produced by the organization for development .

1.2 Literature Review

As a project manager and developer as well, its estimates are defined at an early stage in the Literature review as an expressive study based on the detailed review of earlier pertinent studies related to the various concepts of online shopping to discover the concept of online shopping. It highlights the status of online shopping, importance and problems of online shopping, factors affecting online shopping and a critical review of the privacy and security issues in online shopping.

1.2.1 STATUS OF ONLINE SHOPPING IN PRESENT BUSINESS ENVIRONMENT

Online buying behavior is affected by various factors like, economic factors, demographic factors, technical factors, social factors, cultural factors, psychological factors, marketing factors and legislative factors. Customers choose an online-shop mainly based on references, clarity terms of delivery, graphic design and additional services.

Problematic customers read discussions on the Internet before they spend their money on-line and when customers are incapable of purchasing the product fast and with no trouble they leave online-shop. Kotler, (2003) described Consumer buying method as learning, information-processing and decision-making activity divided in several consequent steps: Problem identification, Information search, Alternatives evaluation, Purchasing decision, Post-purchase behavior.

Online SHOPPE wants flexibility in their shipping, mainly the ability to give special delivery instructions or schedule a delivery time. Customers are also wanting to get the address changing option for filling the wrong address when they are purchasing online.

1.2.2 IMPORTANCE OF ONLINE SHOPPING

Consumers can purchase any goods and services anytime and anywhere. Online shopping is user friendly compared to in store shopping because consumers can just complete their requirements just with a click of mouse without leaving their home

Online shopping has some advantages like below :

- Save the Time of the consumers.
- They can purchase any time anywhere
- They can compare the price with the other retailers very easily.
- Compare the advertising price and actual price
- They can easily track their product
- They can use cash back policy
- They can purchase the product from the foreign marketers

2.4 PROBLEMS OF ONLINE SHOPPING

- The customers can not touch and feel the products when they want to Purchase.
- Some time delivery time is so much late
- Some time they will pay the shipping charges so why the cost of the product may increase.
- Lack of personal attention by the sellers. More chances to fraud.
- Security of internet banking password and credit card password
- Lack of quality

1.3 Objectives

The main objective of the study is to develop an online Electronics & Fashion brochure system.

The system aims to achieve the following objectives:

- To design an online Electronics & Fashion system.
- To provide a solution to reduce and optimize the expenses of customer order management
- To create an avenue where people can shop for Electronics & Fashion products online.
- To develop a database to store information on Electronics & Fashion products and services.



1.4 Significance

With the aid of an efficient information system, Electronics & Fashion associations can be able to react quickly by giving out information about changes in the market and latest trends to the public.

An online application not only saves time and money, but also minimizes administrative efforts and cost. It provides an avenue to market products to a whole new audience.

- Here are benefits of having an SHOPPE - Electronics & Fashion store :
- Easy advertisement of new products and services
- •Saves time on the part of the buyer due to the fact that they can do transactions for any product or make enquiries about any product or services provided by a company anytime and anywhere.
- It creates an avenue for expansion to national and international markets.
- An online Electronics & Fashion brochure system improves the brand image of a company.
- It aids an Electronics & Fashion company in providing better customer service.
- It helps to simplify business processes and make them faster and more efficient.

1.5 Research Design

Research design is the framework of research methods and techniques chosen by a researcher. The design allows researchers to hone in on research methods that are suitable for the subject matter and set their studies up for success.

The Research methodology which is used in this project is Quantitative Research.

1.4.1 Quantitative Research : Quantitative research is defined as a systematic investigation of phenomena by gathering quantifiable data and performing statistical, mathematical, or computational techniques. Quantitative research collects information from existing and potential customers using sampling methods and sending out **online surveys , polls and questionnaires**, etc., the results of which can be depicted in the form of numerical. After careful understanding of these numbers to predict the future of a product or service and make changes accordingly.



- Structured tools such as surveys, polls, or questionnaires are used to gather quantitative data.
- Various factors related to the research topic are studied before collecting feedback from respondents.
- Results of this research method can be generalized to an entire population to take appropriate actions for improvement.

CHAPTER 2

2.1 Procedure Adopted :

This Section describes the methodology applied during the development of SHOPPE - Electronics & Fashions store

2.1.1 Methodology

A methodology is a model, which project managers employ for the design, planning, implementation and achievement of their project objectives. Effective project management is essential in absolutely any organization, regardless of the nature of the business and the scale of the organization. From choosing a project to right through to the end, it is important that the project is carefully and closely managed.

Based on the nature of my project solution, it was essential to use an **incremental Software development** life cycle (SDLC). The project typically has a number of Phases and the level of control required over each phase are primarily defined by the nature of the Project, the complexity of the same and the industry to which the Project has to cater to.

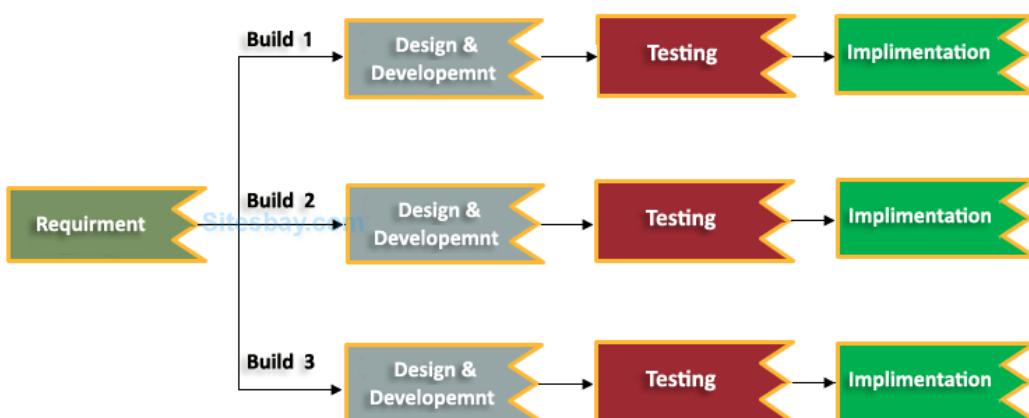


Figure 1: Incremental Model

An Incremental (SDLC) model consists of a number of dependent increments that are completed in a prescribed sequence. Each increment includes a Launching, Monitoring and Controlling, and Closing Process Group for the functions and features in that increment only. Each increment integrates additional parts of the solution until the final increment, where the remaining parts of the solution are integrated.

2.1.2 Justification for the methodology

This model can be used when the requirements of the complete system are clearly defined and understood, like the case of this project where :-

- Major requirements were evidently defined; however, some details evolved with time..
- The Incremental model is much better equipped to handle change. Each incremental functionality is verified by the customer and hence the relative risk in managing large and complex projects is substantially reduced. On the downside, there is a possibility of gold plating, wherein the functionalities not really required end up being built into the Product or Deliverable. In a nutshell, Incremental SDLC provide plethora of advantages
- Generates working software quickly and early during the software life cycle.
- This model is more flexible and less costly to change scope and requirements.
- It is easier to test and debug during a smaller iteration.
- In this model customers can respond to each build.
- Lowers initial delivery cost.
- Easier to manage risk because risky pieces are identified and handled during its iteration.

2.2 UML Diagrams

2.2.1 USE-CASE Diagram : A use case is a methodology used in system analysis to identify, clarify, and organize system requirements. The use case is made up of a set of possible sequences of interactions between systems and users in a particular environment and related to a particular goal. In this use case diagram of Online Shopping, the admin can add, delete, edit and view Category, Manufacturer and Product as well as manage all of them. Also Admin can manage order those are requested by the customer, and can change the status

Use Case Diagram for Online Shopping Website

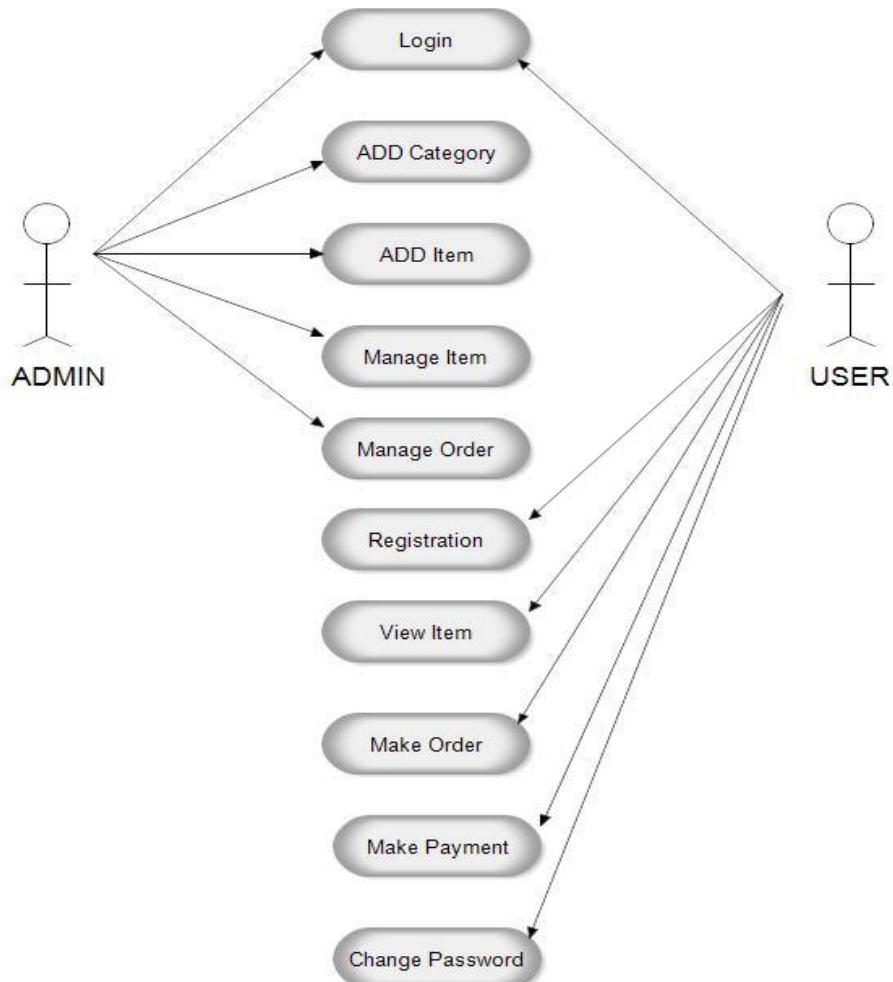


Figure 2: Use Case Diagram

2.2.2 Activity Diagram (USER) :

An activity diagram is a **behavioral diagram** i.e. it depicts the behavior of a system. An activity diagram portrays the control flow from a start point to a finish point showing the various decision paths that exist while the activity is being executed.

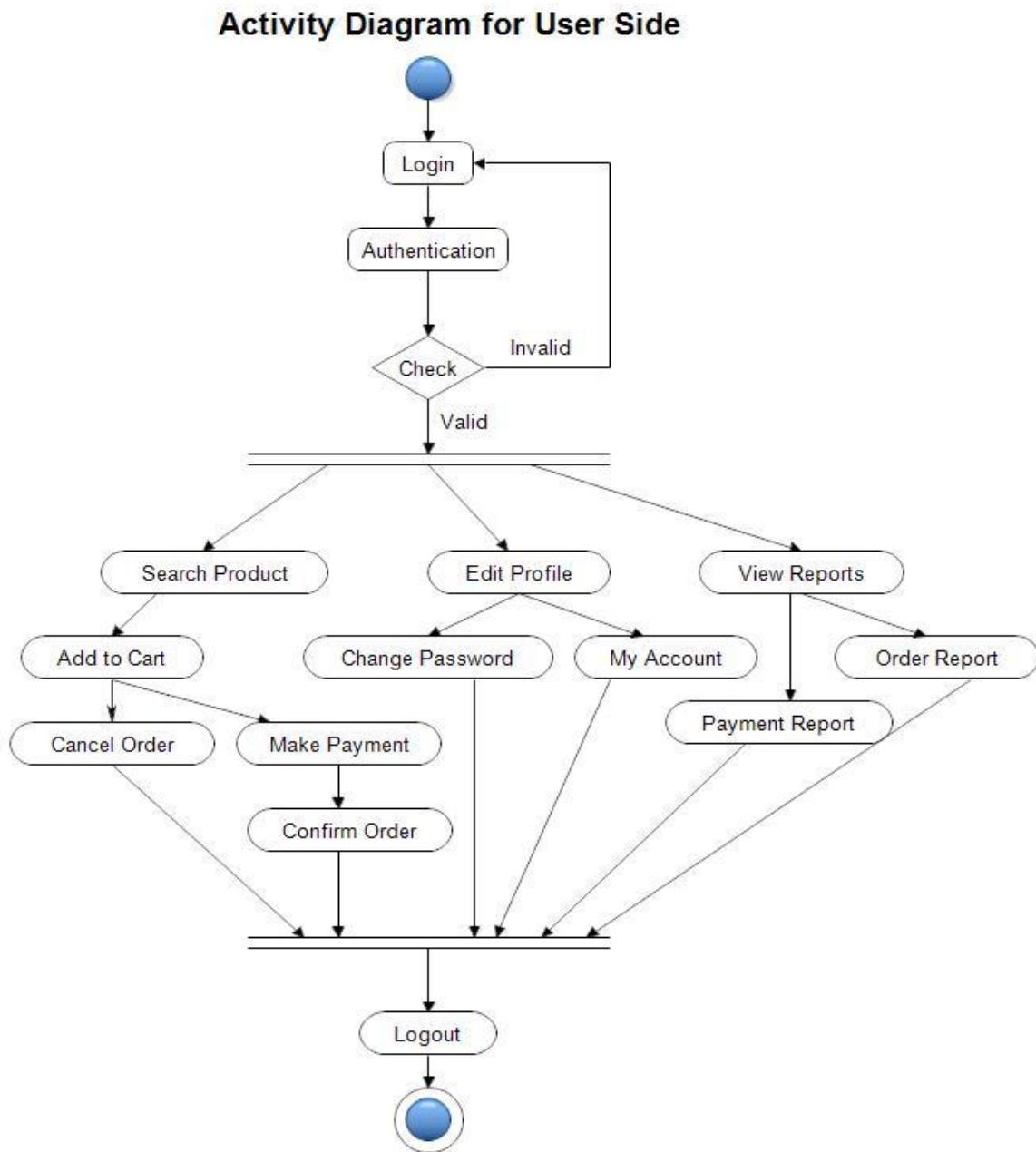


Figure 3: Activity Diagram(User Side)

2.2.3 Activity Diagram (Admin Side)

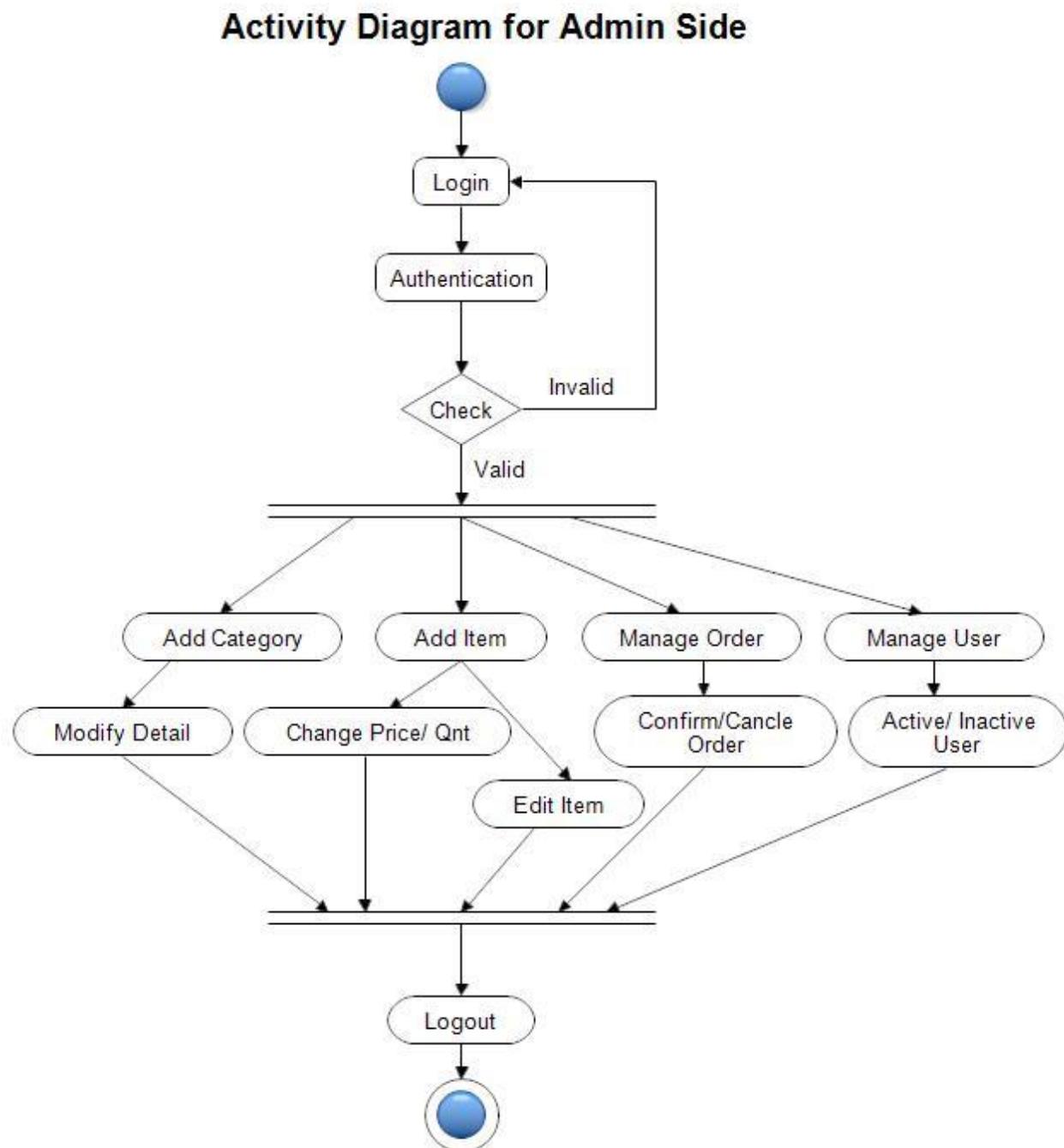


Figure 4: Activity Diagram(Admin Side)

2.2.4 Sequence Diagram

The sequence diagram represents the flow of messages in the system and is also termed as an event diagram. It helps in envisioning several dynamic scenarios. It portrays the communication between any two lifelines as a time-ordered sequence of events, such that these lifelines took part at the run time.

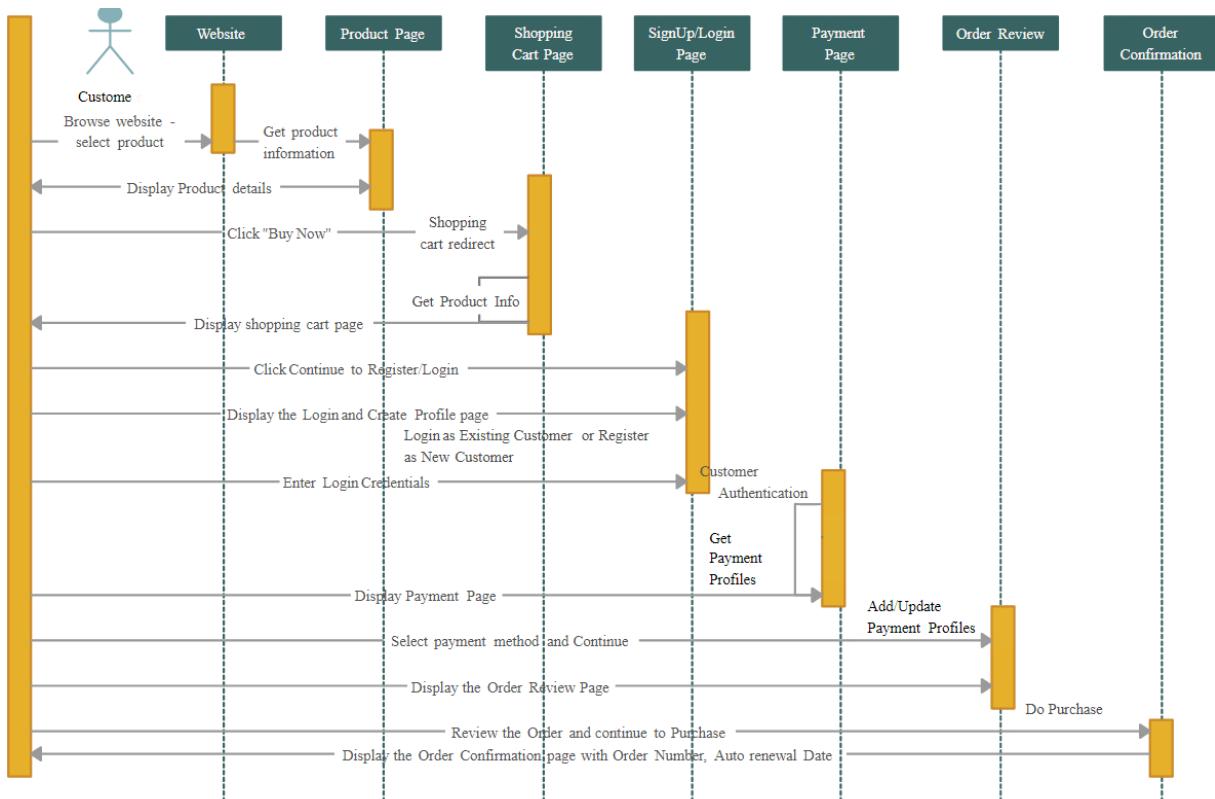


Figure 5: Sequence Diagram

2.2.5 Entity Relationship Diagram (ERD)

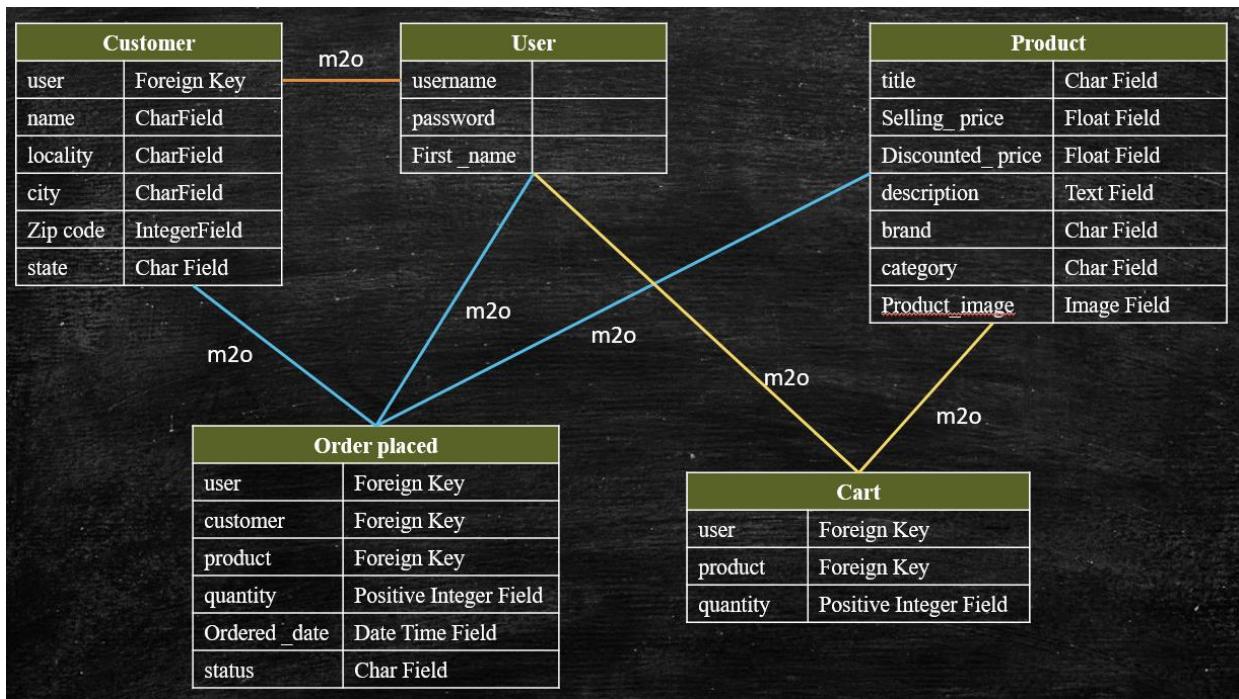


Figure 6: Database Diagram

2.2.6 Dataflow Diagram (DFD)



Figure 7: Data Flow Diagram

2.3 Scope and Limitations

Every project is done to achieve a set of goals with some conditions keeping in mind that it should be easy to use, feasible and user friendly. As the goal of this project is to develop an online Electronics & Fashion brochure system, this system will be designed keeping in mind the conditions (easy to use, feasibility and user friendly) stated above. It may help in effective and efficient order management.

In every short time, the collection will be obvious, simple and sensible. It is very possible to observe the customer potentials and purchase patterns because all the ordering history is stored in the database. It is efficient in managing all the operations of an online store within a single platform. The project aims to automate the business process of SHOPPE - Electronics & Fashion store.

The proposed project would cover:

1. Customer side :

1. Customers can view/search products without login.
2. Customers can also add/remove products from the cart.
3. When a customer tries to purchase a product, then he/she must login to the system.
4. After creating an account and login to the system, he/she can place an order.
5. Customer has a choice to select the payment method as per his/her choice.
6. If a customer clicks on the pay button, then their payment will be successful and their order will be placed.
7. Customers can check their ordered details by clicking on the orders button.
8. Customer can see the order status (**Pending, Confirmed, Delivered**) for each order

2 Administration Side :

1. Admin can provide username, email, password and your admin account will be created.
2. After login, there is a dashboard where the admin can see how many customers are registered, how many products are there for sale, and how many orders are placed.
3. Admin can add/delete/view/edit the products.
4. Admin can view/edit/delete customer details.
5. Admin can view/delete orders.
6. Admin can change status of order (order is pending, confirmed, out for delivery, delivered)

3. Key Features :

1. User friendly interface
2. Robust Login and SignUp pages with validation.
3. Password reset Functionality.
4. Customers can view or edit their Profile Anytime.
5. He or she sees order history and can check their order status .
6. Easy to use and an informative CART.
7. Online Payment integration using **PayPal** or **Debit** and **Credit** card.
8. Any user can add multiple addresses and get delivery wherever he or she wants.
9. Customer can see the order status as (order accepted , pending ,out for delivery, delivered)
10. Fully Dynamic website with a very Robust Database.

4. Additional Features

Additionally, if a customer places an order and the admin deleted that user (fraud detection), then their orders will automatically be deleted. Suppose one (1) customer places four (4) product orders and admin deleted two (2) products from the website, then that two-product order will also be deleted and the other two will be there. Also, if a user clicks on the purchase button without having products in their cart, then the website will ask to add the product in cart first.

On the contrary, designing web applications is characterized by some constraints and limitations. Developers are limited to a small set of graphical widgets for use in presenting a user interface. Web-based applications require high investment in software, as well as maintenance costs for the software and personnel for software administration. In this study, verification of credentials for membership cannot be done. Besides, there is a payment page although just for demo. Customers are advised to fill in pseudo details (DON'T FILL YOUR ORIGINAL CARD DETAILS THERE). By the way, websites do not save these details.

CHAPTER 3

3.1 Implementation Methodology

Model View Controller or MVC as it is popularly called, is a software design pattern for developing web applications. A Model View Controller pattern is made up of the following three parts:

- ❖ **Model**-The lowest level of the pattern which is responsible for maintaining data.
- ❖ **View**-This is responsible for displaying all or a portion of the data to the user.The persistent data that we keep in the datastore.
- ❖ **Controller** - Software Code that controls the interactions between the Model and View.

MVC is popular as it isolates the application logic from the user interface layer and supports separation of concerns. Here the Controller receives all requests for the application and then works with the Model to prepare any data needed by the View. The View then uses the data prepared by the Controller to generate a final presentable response. The MVC abstraction can be graphically represented as follows.

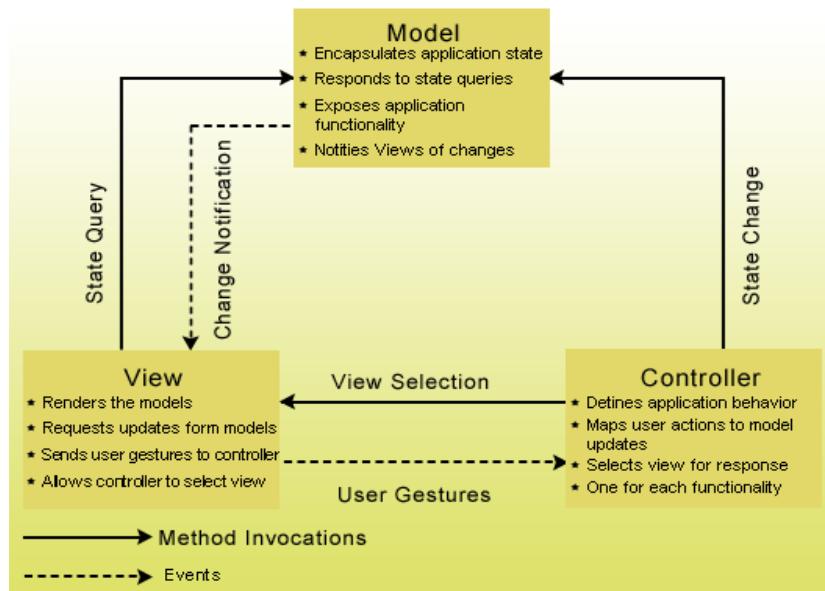


Figure 8: MVC Architecture

3.2 System Analysis

Analysis is an important part of any project; if analysis is not done properly then the whole project moves in the wrong direction. It also provides a schedule for proper project work. Analysis task divided into 2 areas:

- ✓ Requirement Analysis.
- ✓ Feasibility Study.

3.2.1 Requirements Analysis and Specification

A complete understanding of software requirements is essential to the success of a web development effort. No matter how well designed or well coded, a poorly analyzed and specific program will disappoint user and bring grief to the developers

The requirement analysis task is the process of discovery, refinement, modification and specification. The software scope, initially established by the system engineer and refined during project planning, is refined in detail. Models of the required data, information and control flow, and operational behavior are created. Alternative solutions are analyzed and various project elements.

As the goal of the application is ease of use and to provide an interactive interface, extensive research has been done to gain an insight into the needs and behaviors of various users. The working of the application is made convenient and easy to use for the end user. In online web based shopping systems there are two parties who interact with the system, one of them is a customer who wants to buy a product and other the system admin manages the system.

Based on the Analysis , the Requirements for the proposed system is categorized into **functional** and **nonfunctional** requirements.

3.2.1.1 Functional Requirements

A Functional Requirement (FR) is a description of the service that the software must offer. It describes a software system or its components. A function is nothing but inputs to the software system, its behavior, and outputs.

→ **Customer requirements:**

- Knowing when an item has to be saved, not saved in the shopping cart.
- Returning the different parts of the site after adding an item to the shopping cart.
- Easy scanning and selecting items in the list.
- Effective categorical organization of the products.
- Simple navigation from home page to information and order links for specific products.
- Obvious shopping links or buttons.
- Consistent layout of product information.
- A well-organized web interface to work as admin so that he can handle all the parts of the system properly.

3.2.1.2 Non functional Requirements

It specifies the quality attribute of a software system. They judge the software system based on Responsiveness, Usability, Security, Portability and other non-functional standards that are critical to the success of the software system.

- **Availability:** The system should remain operational in any day and any place.
- **Accuracy:** There is a need to optimize the system to ensure more accurate results and calculations.
- **Usability:** The system should provide a User-friendly user interface and tooltips to enhance itself and be effectively responsive.
- **Secure:** The system must be able to provide security against any external injections by using a layered security system. Implementation of user login functionalities also ensures the system is secure from unauthorized persons.
- **Performance of the system:** Response time is very good for a given piece of work. The system will support a multi-user environment.
- **Reliability of the system:** The system will be highly reliable and it generates all the updates information in correct order. Data validation and verification is done at every stage of activity. System recovery will also be speed.

3.2.2 Feasibility Study

Feasibility study of the system is a very important stage during system design. Feasibility study is a test of a system proposal according to its workability impact on the organization, ability to meet user needs, and effective use of resources. Feasibility study decides whether the system is properly developed or not. There are five types of feasibility as mentioned below:

1. Technical Feasibility

Technical feasibility corresponds to determination of whether it is technically feasible to develop the software. Here those tools are considered, which will be required for developing the project. The tools, which are available, and tools, which will be required, are taken into account. Considering all above points and aspects it is observed that the cost incurred in developing this project from a technical perspective would not be too high. Thus, it is feasible for the company as well as for me to develop this system.

2. Time Feasibility

Time feasibility corresponds to whether sufficient time is available to complete the project.

Parameters considered:

- Schedule of the project.
- Time by which the project has to be completed.
- Reporting period

Considering all the above factors it was decided that the allotted time that is 3 months was sufficient to complete the project.

3. *Operational Feasibility*

Operational feasibility corresponds to whether users are aware of the interface environment and sufficient resources are available or not.

Parameters considered:

- People with a basic knowledge of computers would be able to use our system very effectively and easily, as the system would have an intuitive GUI. The director and employees of **SHOPPE** - Electronics & Fashions have a basic operating knowledge of computers, so understanding the working of the system and using it would be easy from the decision maker's point of view.
- All the relevant necessary resources for implementing and operating this system are already present in office.

Bearing in mind the above factor, it was observed that the cost incurred in developing this project from an operational standpoint would be low. Thus, it would be operational feasible for the company.

4. *Implementation Feasibility*

Implementation Feasibility is about basic infrastructure required to develop the system. Considering all the points below, it is feasible to develop a system.

Factors considered:

- All the minimum infrastructure facilities required like PC, books, technical manuals are provided.
- Proper guidance is provided.
- All necessary data and files are provided.

3.3 System Specifications

Table 2: *Hardware Requirements*

SL	Hardware	Minimum System Requirement
1	Processor type	1. Intel core i3 2. Amd Ryzen 3
2	Processor Speed	2.4 GHZ
3	Memory	4 GB
4	Disk Space	500 GB

Table 3: *Software Requirements*

SL	Hardware	Minimum System Requirement
1	Operating System	Windows 8, Windows 10 or MAC Os 10.8,10.9, or 10.11, LINUX
2	Database	SQLite 3
3	IDE	Pycharm or Visual Studio Code
4	Web Browser	Google Chrome , Microsoft Edge , Firefox.

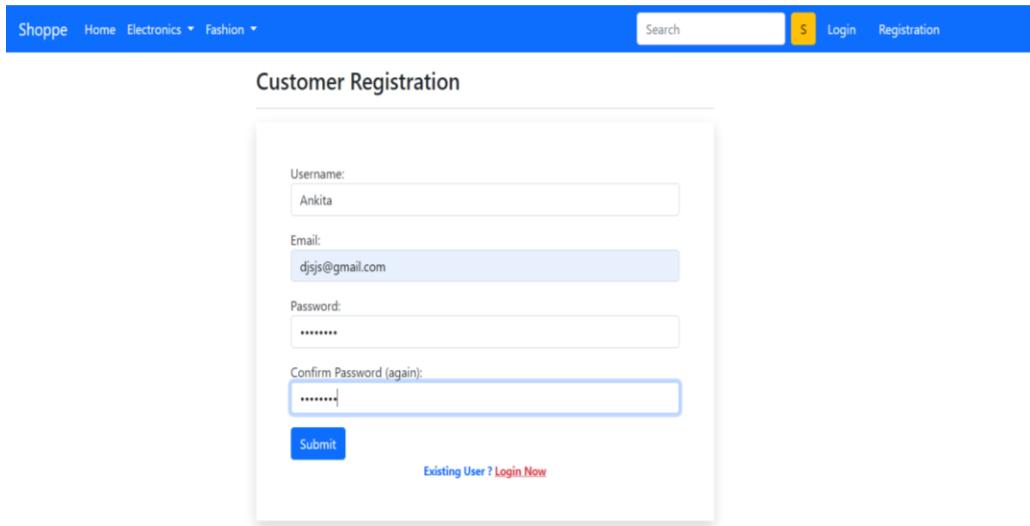
Table 4: *Technologies Used*

Front End	Back End	DATABASE
HTML	Python	SQLite 3
CSS	Django Framework	
BootStrap5	JavaScript	
FontAwesome	Paypal Sandbox	

3.4 Project Screenshots

1. Registration:-

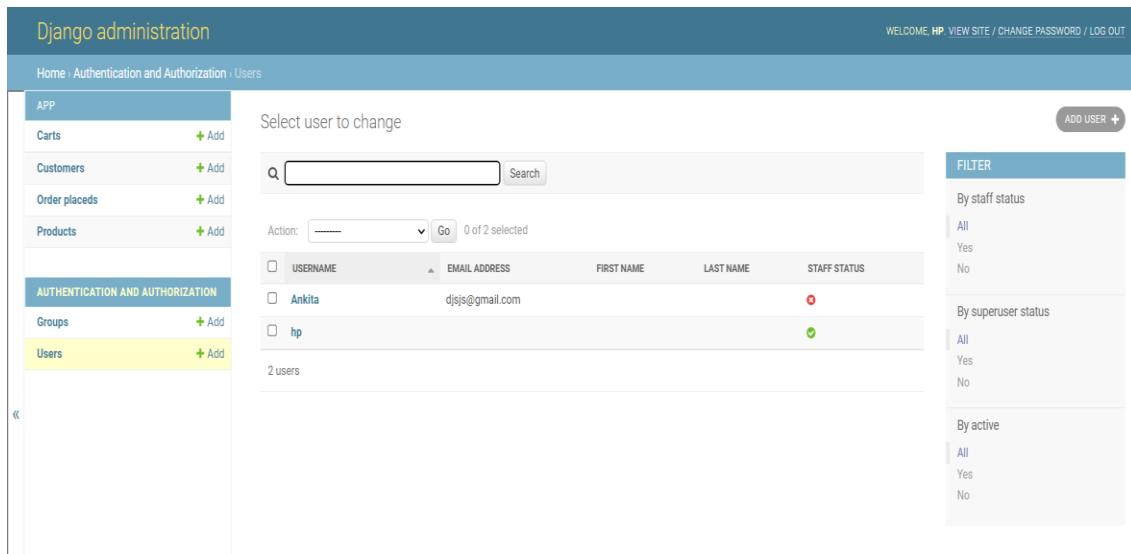
Input:- User Details



The screenshot shows a 'Customer Registration' form. At the top, there is a navigation bar with links for Shoppe, Home, Electronics, Fashion, a search bar, and buttons for Login and Registration. The main form has fields for Username (Ankita), Email (djsjs@gmail.com), Password (*****), and Confirm Password (again) (*****). A 'Submit' button is at the bottom left, and a link 'Existing User ? Login Now' is at the bottom right.

Figure 9: Customer Registration Page

Output:-Successful registration of user & user data added on to the database.

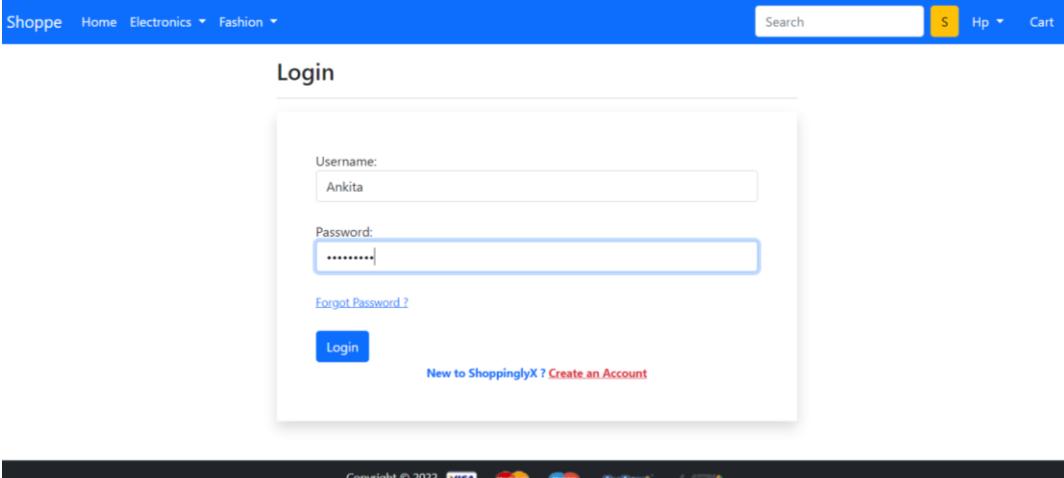


The screenshot shows the Django Admin 'Users' list page. The sidebar on the left lists 'Carts', 'Customers', 'Order placeds', and 'Products' under 'APP', and 'Groups' and 'Users' under 'AUTHENTICATION AND AUTHORIZATION'. The main area displays a table with columns: USERNAME, EMAIL ADDRESS, FIRST NAME, LAST NAME, and STAFF STATUS. Two users are listed: 'Ankita' (djsjs@gmail.com, Staff Status: No) and 'hp' (Staff Status: Yes). A 'Search' bar and a 'Go' button are above the table. On the right, there are 'FILTER' sections for 'By staff status' (All, Yes, No), 'By superuser status' (All, Yes, No), and 'By active' (All, Yes, No). A 'ADD USER +' button is in the top right corner.

Figure 10: Registered user shown at admin side

2. Login:-

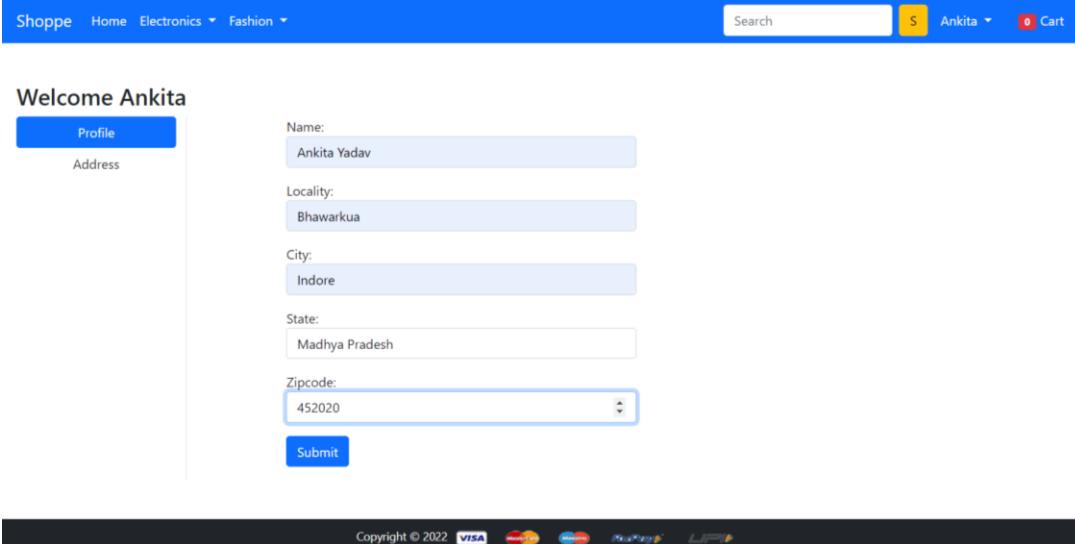
Input:- User Credential



The screenshot shows a login form on a website. At the top, there is a blue header bar with the text "Shoppe" and "Home Electronics ▾ Fashion ▾". To the right of the header are search, user profile, and cart icons. Below the header, the word "Login" is centered above a white form area. The form contains two input fields: "Username" with the value "Ankita" and "Password" with masked input. Below the password field is a "Forgot Password ?" link. A blue "Login" button is positioned below the password field. At the bottom of the form, there is a link "New to ShoppinglyX ? Create an Account". At the very bottom of the page, there is a dark footer bar with the text "Copyright © 2022" and icons for various payment methods.

Figure 11: Login Page

Users will be redirected to the profile page to complete the profile.



The screenshot shows a user profile page. At the top, there is a blue header bar with the text "Shoppe" and "Home Electronics ▾ Fashion ▾". To the right of the header are search, user profile (showing "Ankita"), and cart icons. Below the header, the text "Welcome Ankita" is displayed. On the left, there is a sidebar with "Profile" (highlighted in blue) and "Address" buttons. The main content area contains several input fields for address details: "Name" (Ankita Yadav), "Locality" (Bhawarkua), "City" (Indore), "State" (Madhya Pradesh), and "Zipcode" (452020). A "Submit" button is located at the bottom of these fields. At the very bottom of the page, there is a dark footer bar with the text "Copyright © 2022" and icons for various payment methods.

Figure 12: User Profile page

All the information we entered previously shows here.

The screenshot shows the Shoppe app's user profile screen. At the top, there is a blue header bar with the text "Shoppe" and "Ankita". Below the header, the text "Welcome Ankita" is displayed. On the left side, there is a sidebar with two buttons: "Profile" and "Address", where "Address" is highlighted with a blue background. The main content area contains a box titled "Address: 1" which lists the following address details:
Name: Ankita Yadav
Locality: Bhawarkua
City: Indore
State: Madhya Pradesh
Pin Code: 452020

Figure 13: Address details added

Home page of Shoppe :



Figure 14: Shoppe Homepage

User can also select product category wise from navbar

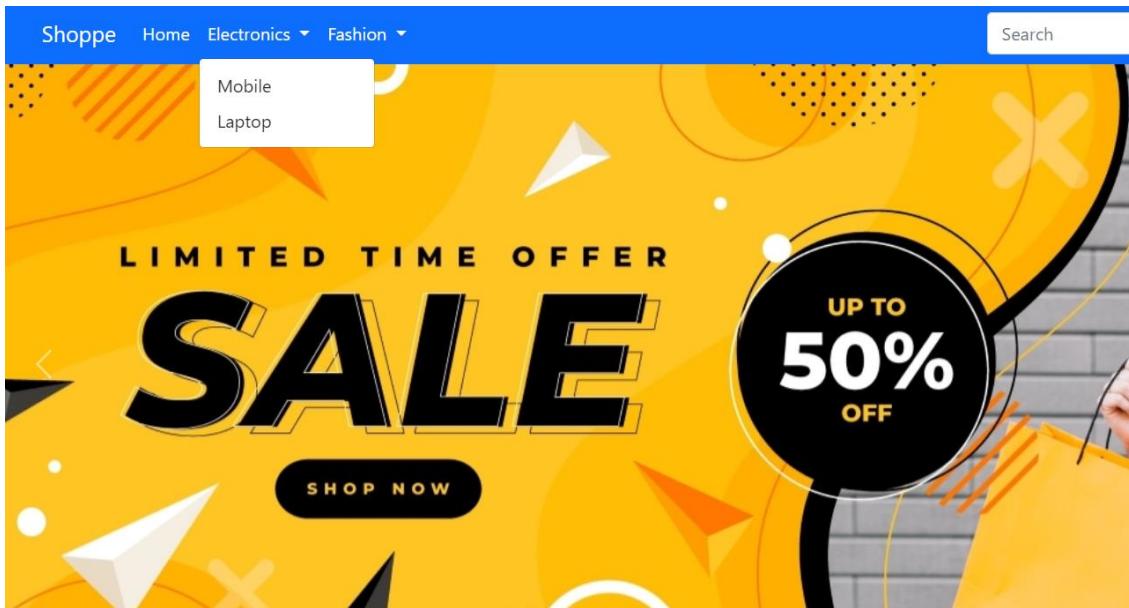


Figure 15: Product category option at navbar

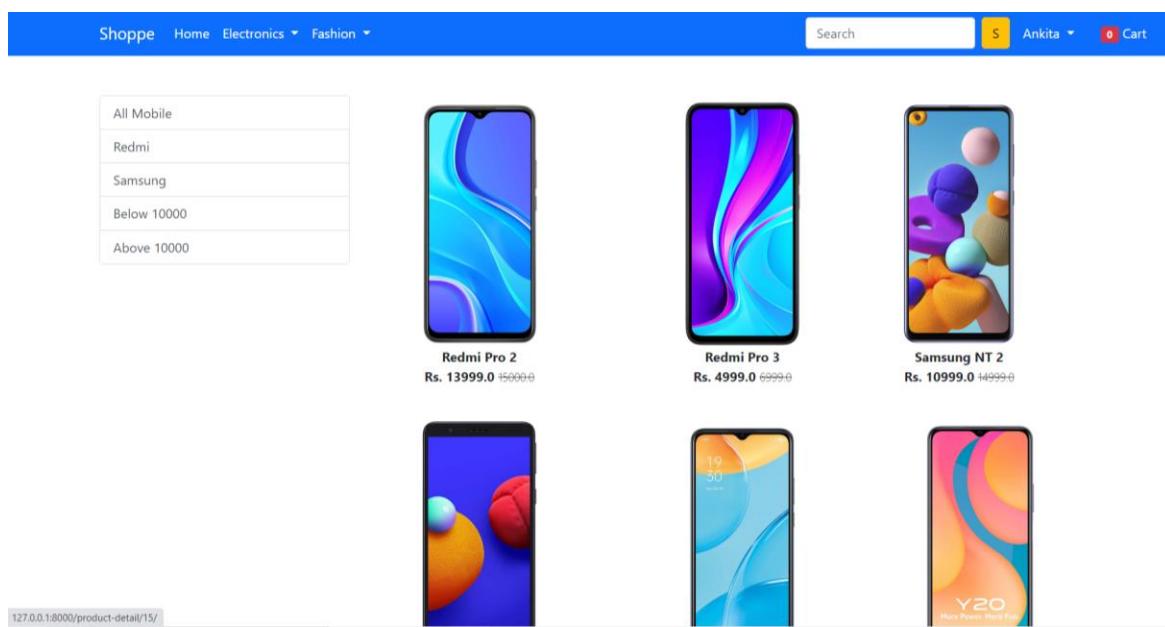


Figure 16: Products available

3. To add product to the cart:-

After selecting the product from navbar product categories added to the cart.

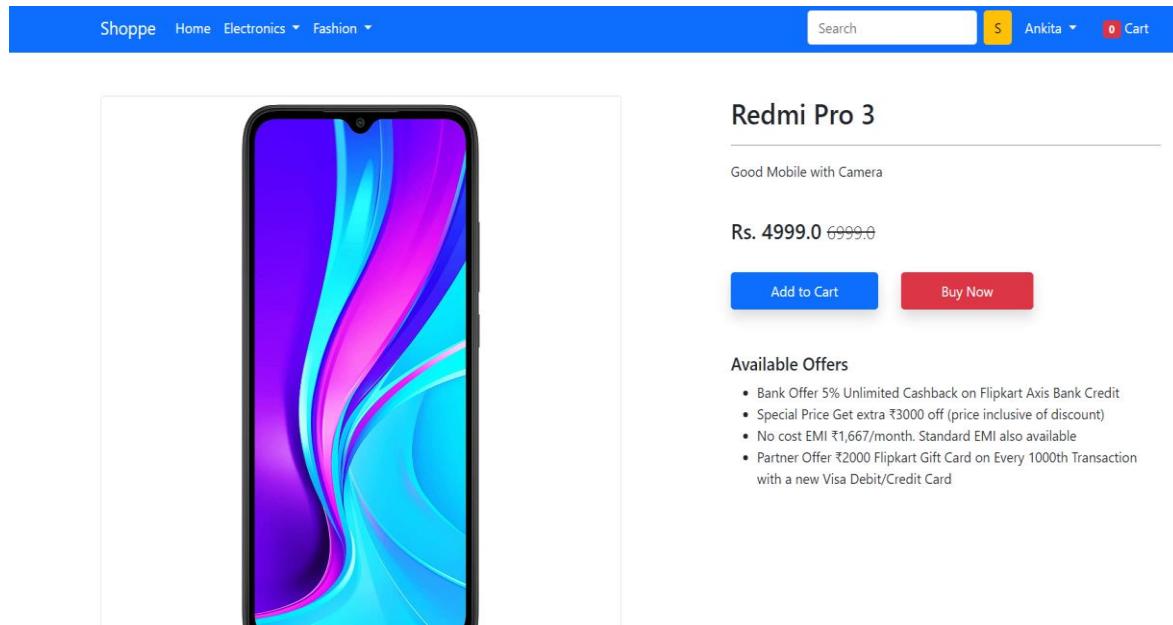


Figure 17: Product selected to add to the cart

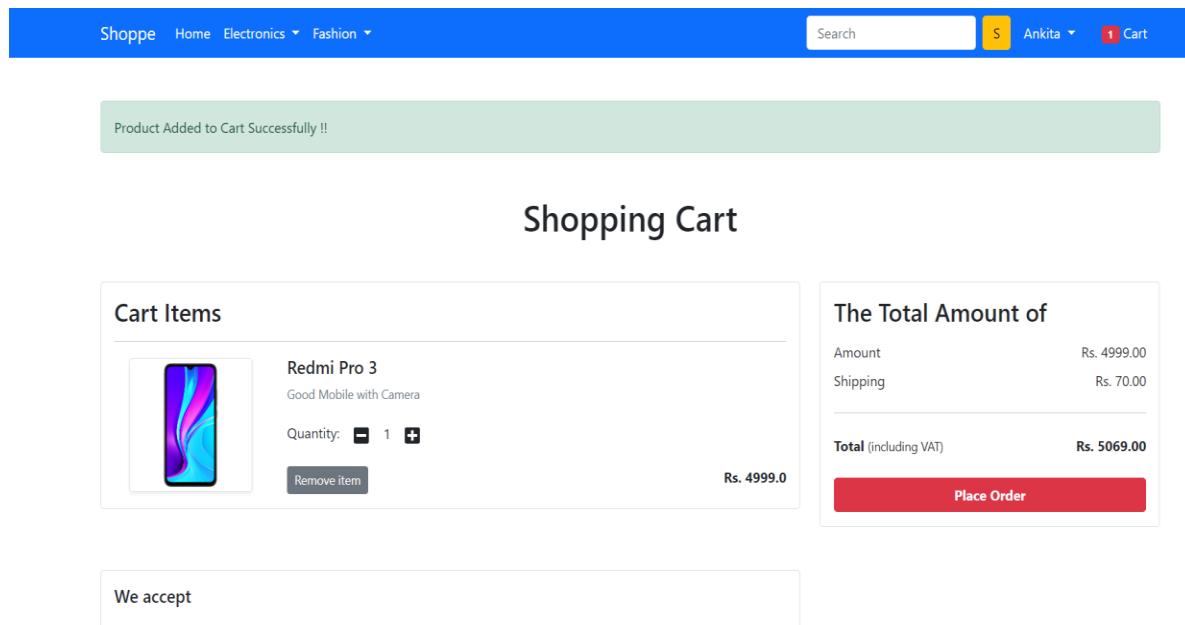


Figure 18: Product added to the cart

4. Paypal Payment Process:-

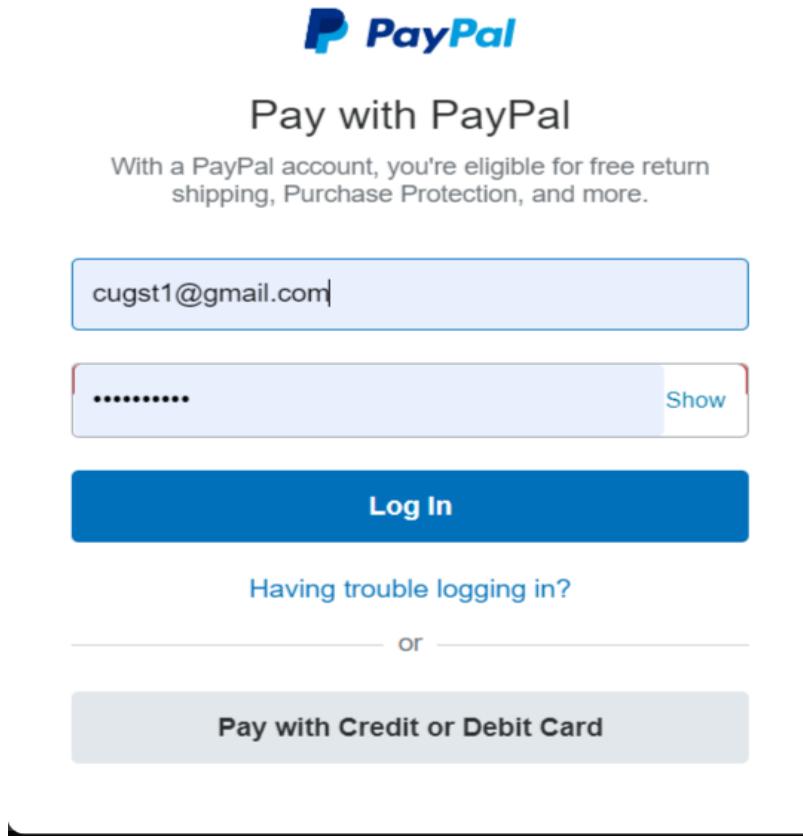


Figure 19: Paypal login window

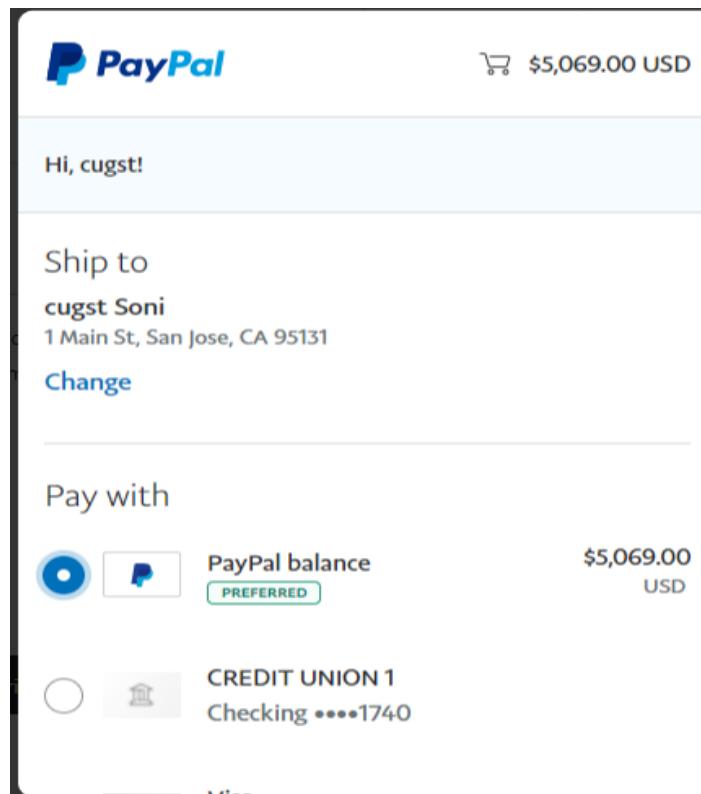


Figure 20: Payment options

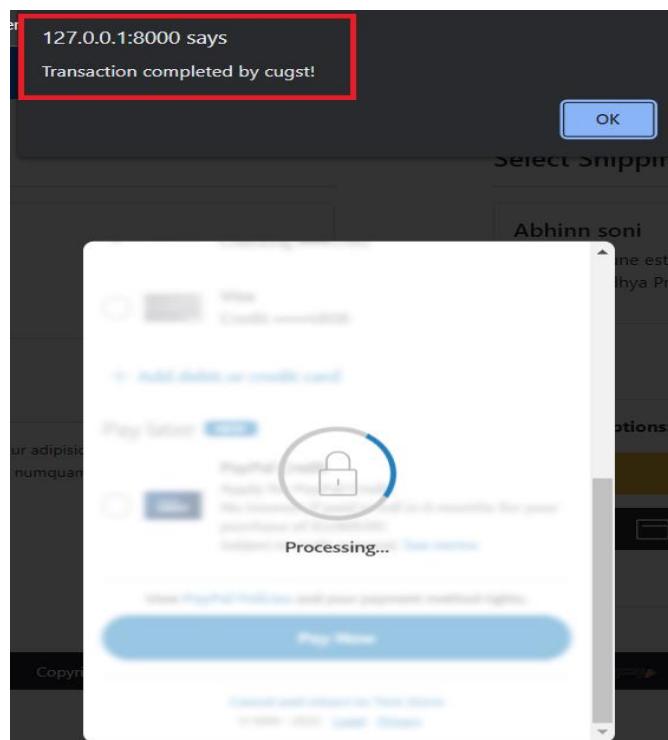


Figure 21: Payment processing

5. Customer account transaction detail

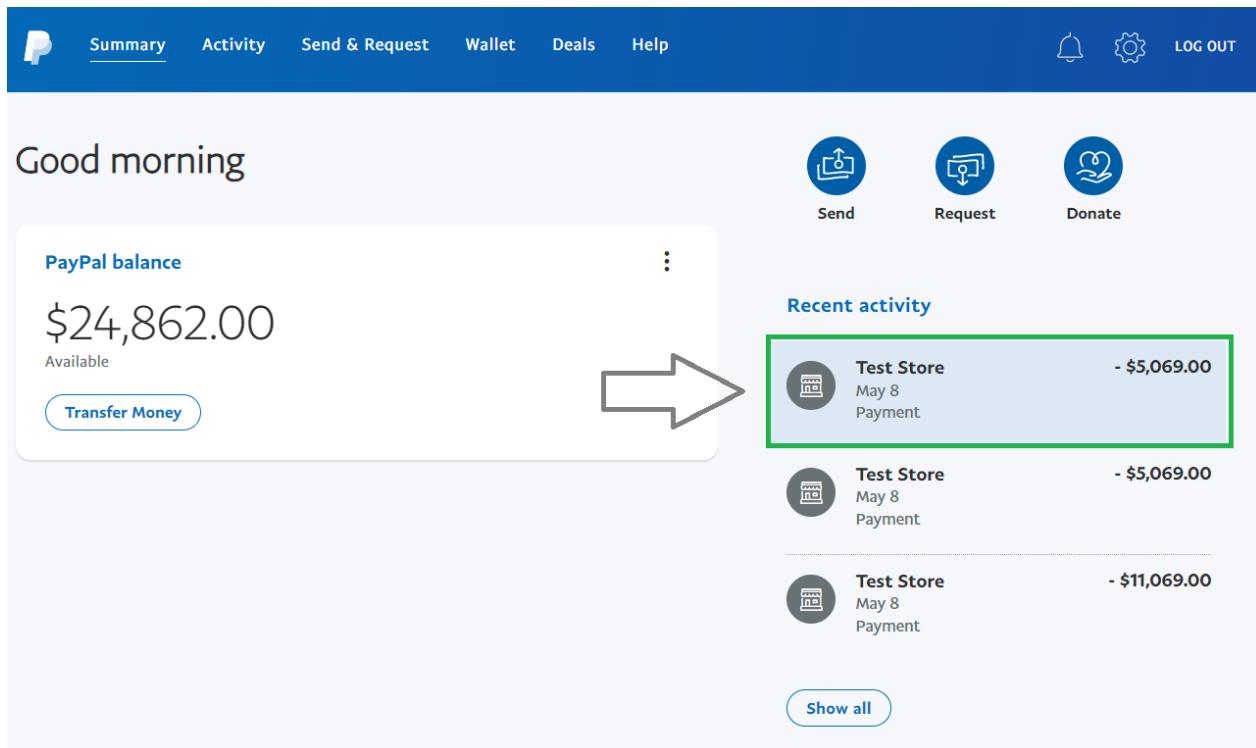


Figure 22: Customer's paypal balance

The screenshot shows a detailed view of a payment transaction. At the top left is a back arrow and the word "Summary". The transaction details are as follows:

- Test Store** (Icon)
- May 8, 2022** (highlighted with a red box)
- Payment**
- \$5,069.00**

Paid with: Balance (\$5,069.00) (highlighted with a red box)

Ship to: cugst Soni, 1 Main St, San Jose, CA 95131, United States

Seller info: Test Store, <https://www.example.com>, cs-sb-j3fqe15255612@business.example.com

Purchase details: Purchase amount \$5,069.00

Total: \$5,069.00 (highlighted with a red box)

At the bottom left is a "Print details" button.

Figure 23: Payment summary

6. Seller's account transaction Detail

Transaction details Print

Payment received from cugst Soni

May 8, 2022 at 10:24:23 AM PDT

Payment Status: **COMPLETED**

Payment Type: Checkout

Gross amount **\$5,069.00 USD**

[Issue a refund](#)

OK to ship to **cugst Soni** Seller protection
1 Main St Eligible
San Jose, CA 95131 Eligible when you ...
UNITED STATES [Ship to the address on this page.](#)
Confirmed [Save your tracking or shipping info.](#)
[Follow the requirements for seller protection.](#)

[Print packing slip](#) | [Ship](#) | [Add tracking info](#) |

[Mark as shipped](#) | [Launch PayPal MultiOrder Shipping](#)

Order details	Quantity	Price	Subtotal
	1	\$5,069.00 USD	\$5,069.00 USD
	Purchase Total \$5,069.00 USD		

Payment details

Purchase Total	\$5,069.00 USD
Sales Tax	\$0.00 USD
Shipping Amount	\$0.00 USD
Handling Amount	\$0.00 USD
Insurance Amount	\$0.00 USD
Gross Amount	\$5,069.00 USD
PayPal Fee	-\$177.40 USD
Net Amount	\$4,891.60 USD

Reversals - Please be aware that this payment can still be reversed (e.g. if it is subject to a chargeback), even after you have sent the item(s) to your buyer. Complying with PayPal's Seller Protection and following the trading guidelines on our Security page helps to protect you from things like chargebacks.

Refund Information - Please accept or refuse this payment. If you accept this payment now and need to refund it later, the Issue a Refund link will be available on the transaction details page for 180 days after the payment was originally sent.

Paid by	cugst Soni The sender of this payment is Verified cugst1@gmail.com
Payment Sent to	sellgst1@gmail.com

Need help?

Go to the [Resolution Center](#) for help with this transaction, to settle a dispute or to open a claim.

Figure 24: Transaction, order and payment details of order at seller's side

All	Search for transactions							
Archive	Transaction Type	Date						
Active	Past 30 days	All currencies						
	Download							
<input type="checkbox"/> Date	Type	Name	Payment	Gross	Fee	Net	Balance	Actions
<input type="checkbox"/> 10:24 AM	Payment from	cugst Soni	Completed	\$5,069.00 USD	-\$177.40	\$4,891.60	\$45,490.82 USD	
<input type="checkbox"/> 8:12 AM	Payment from	cugst Soni	Completed	\$5,069.00 USD	-\$177.40	\$4,891.60	\$40,599.22 USD	
<input type="checkbox"/> 7:02 AM	Payment from	cugst Soni	Completed	\$11,069.00 USD	-\$386.80	\$10,682.20	\$35,707.62 USD	

Figure 25: Transaction Log (Seller's Side)

3.5 Results and Conclusion

The project entitled SHOPPE - Electronics & Fashion Store system was completed successfully.

The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. The purpose of this project was to develop a web application for purchasing items from a Electronics & Fashion shop.



This project enabled me to gain valuable information and practical knowledge on several topics like designing web pages using html & CSS, usage of responsive templates, designing of full stack Django application, and management of databases using SQLite 3. The entire system is secured. Also, the project helped me understand about the development phases of a project and software development life cycle. I learned how to test different features of a project.

This project has given me great satisfaction in having designed an application which can be implemented to any nearby shops or branded shops selling various kinds of products by simple modifications. However, it was very challenging learning and developing an application using a new technology.

CHAPTER 4

4.1 Future scope

There is a scope for further development in our project to a great extent. A number of features can be added to this system in future like:

- providing classes for customers so that different offers can be given to each class.
- System may keep track of the history of purchases of each customer and provide suggestions based on their history using Machine Learning Algorithms.
- Browsing through the Shopping web site to see the items in each category of products like Books and Media, , Clothing and Footwear, Home and Kitchen Appliances, Games, and many more.
- Feedback mechanism, so that customers can give feedback for the product or service which they have purchased.
- Voice Assistant integration for easy searching.
- With the increasing popularity of smart gadgets people have access to online stores 24*7. It helps them check reviews and stay updated every time it suggests that there is a clear opportunity for influencer marketing of your products via youtube and Instagram.

APPENDIX

Project Log :

Months	Activities	Action planned	Action completed
Jan	Requirements analysis	All the requirements are gathered and analyzed before the development	yes
Feb	Design	User interface is designed for the graphical layout of the system	yes
March	Implementation & coding	Coding and implementing of all the requirements are done in different modules	yes
April	Integration	All the modules are integrated and combined to form final product	yes
May	Testing	Testing and maintenance	yes

Table 5 : Project log

→ Structure of the Project Files

This Project is based on Django MVC architecture .

- **Mange.py** -This file is used basically as a command-line utility and for deploying, debugging, or running our web application. It contains code for run-server, or make migrations or migrations, etc. that we use in the shell. Anyway, we do not need to make any changes to the file.

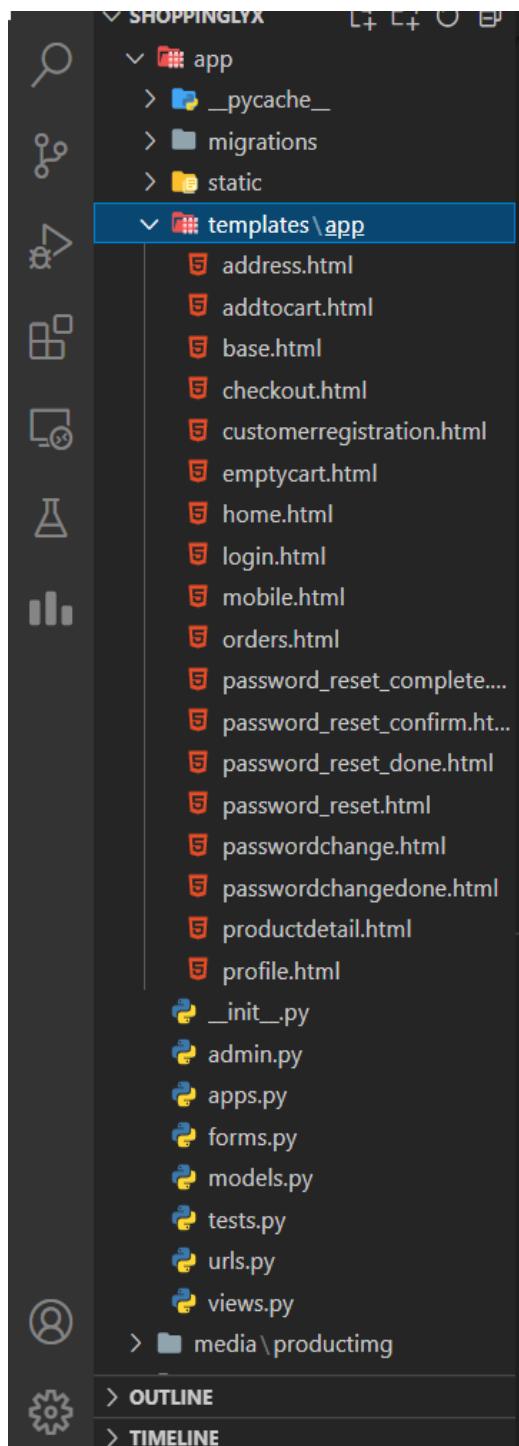
- **Db.sqlite3** is the database file.
- **Static** folder contains all the static files like **CSS, JS** and **Images**.
- **app** is the Django project consisting of init, admin, models, views, apps and forms.

- **Models** are basically the blueprints of the database we are using and hence contain the information regarding attributes and the fields etc of the database
- **Views** is a crucial one, it contains all the Views (usually as classes). Views.py can be considered as a file that interacts with the client. Views are a user interface for what we see when we render a Django Web application.
- **URLs** Just like the project urls.py file, this file handles all the URLs of our web application.

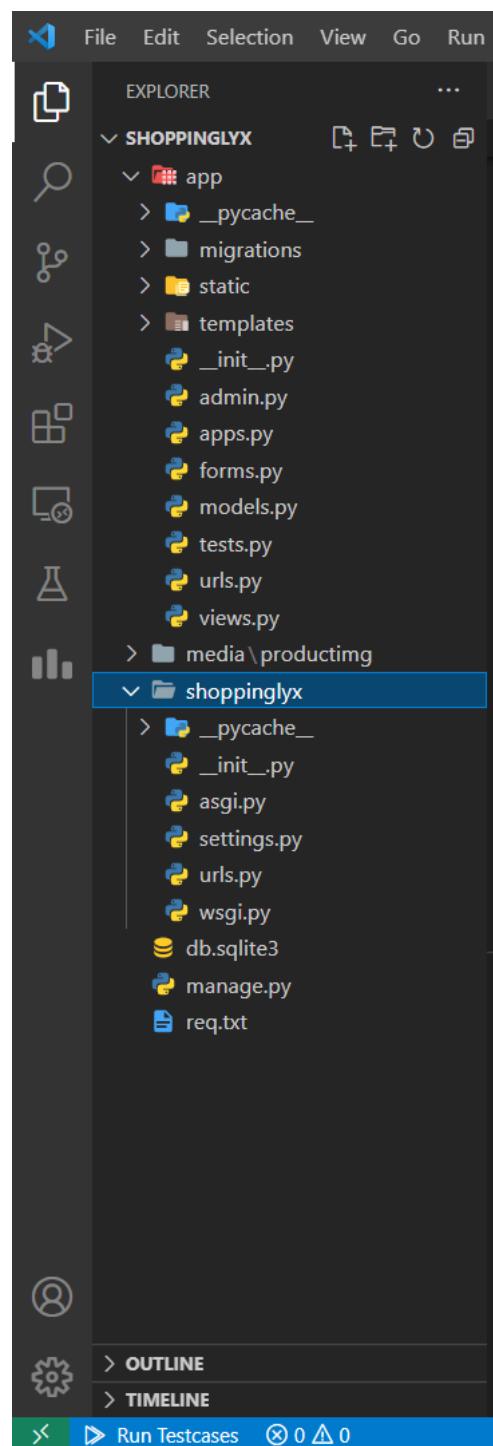
shoppinglyx folder is the Django application directory consisting of the following essential files.

- **Init.py** This file remains empty and is present only to tell that this particular directory is a package.
- **Settings.py** This file is present for adding all the applications and the middleware application present. Also, it has information about templates and databases. Overall, this is the main file of our Django web application.
- **Urls.py** This file handles all the URLs of our web application. This file has the lists of all the endpoints that we will have for our website.
- **Wsgi.py** This file mainly concerns the WSGI server and is used for deploying our applications onto servers like Apache etc.
- **Asgi.py** In the newer versions of Django, you will also find a file named as asgi.py apart from wsgi.py. ASGI can be considered as a successful interface to WSGI. ASGI, short for Asynchronous Server Gateway interface.

Template Files:



Shoppinglyx files :



Bibliography

1. Fernandez, A.& Anthony D. Miyazaki. Consumer Perceptions of Privacy and Security Risks for Online Shopping. *The Journal of Consumer Affairs* 35.1: 27-44.
2. Kandra, A. (2001). The Myth of Secure E-shopping. *PC World July*: 29-32.
3. Halpin, M. (2011). 10 Things Your Mother Never Told You About Online Shopping. *Yahoo! Internet Life*: 61-63.
4. Wu, J., & Guo, X. (2011). Online booking system design and experimental realization. *2011 International Conference on Electrical and Control Engineering*.