Tribhuvan University

Faculty of Humanities and Social Sciences

"CHASMA GHAR "

A PROJECT REPORT

Submitted to

Department of Computer Application

Triton Int'l College

In partial fulfillment of the requirements for the Bachelors in Computer Application

Submitted by

Sujan Pradhan (TU Regno: 6-2-529-71-2018)

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Kathmandu, Nepal

Under the Supervision of

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Faculty of Humanities and Social Sciences

Triton Int'l College

SUPERVISIOR'S RECOMMENDATION

I hereby recommend that this project prepared under my supervision by Sujan Pradhan entitled **" Chasma Ghar "** in partial fulfillment of the requirements for the degree of Bachelor of Computer Application is recommended for the final evaluation.

Basanta Chapagain

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LETTER OF APPROVAL

This is to certify that this project prepared by Sujan Pradhan entitled "**Chasma Ghar**" in partial fulfillment of the requirements for the degree of Bachelor in Computer Application has been evaluated. In our opinion it is satisfactory in the scope and quality as a project for the required degree.

Basanta Chapagain	Er. Shree Krishna Maharjan
Supervisor	Program Coordinator
BCA Department	BCA Department
Triton Int'l College	Triton Int'l College

External Examiner	Internal Examiner

ABSTRACT

The project entitled “Chasma Ghar” is a web based application Software developed in Node JS (Express JS), ReactJS, bootstrap, CSS3 and HTML5. The main aim of “Chasma Ghar” is to improve the services and vendor. It is e-commerce platform of buying and selling of spectacles and glasses. Electronic Commerce is a process of doing business through computer networks. A person sitting on his chair in front of a computer can access all the facilities of the Internet to buy and sell the products. Unlike traditional commerce that is carried out physically with the effort of a person to go and get product, ecommerce has made it easier for human to reduce physical work and to save time. Here the Chasma Ghar maintains the details of customer details, the details of customer payments, products receipts, addition of new customers, products and also updating, deletion for the same. This project is totally built at administrative end and thus only the administrator is guaranteed the access. This system focuses on solving the problems that happened during the time of any kinds of spectacles. The primary features of the project entitled “Chasma Ghar” are high accuracy, design flexibility and easy availability. And also it uses database tables Representing entities and the relationships between entities.

Keyword: Vendor, Product, Node JS, React JS, web application, bootstrap.

ACKNOWLEDGE

The satisfaction and euphoria that accompany the successful completion of any task would be incomplete without the mentioning of the people whose constant guidance and encouragement made it possible.

I express my earnest gratitude to our internal guide, **Mr. Basanta Chapagain,** Department of BCA, our project guide, for his constant support, encouragement and guidance. I am grateful for his cooperation and his valuable suggestions.

I would also like to express my sincere regard and indebtedness to my friends **Mr. Bikash Karki** and **Mr. Ranjan Tamang** for helping me with the suggestions while building this project.

I express my gratitude to all other members who are involved either directly and indirectly for the completion of this project.

In the end, I would like to thank Tribhuvan University for giving this opportunity via the course of Computer Application to help to understand the project ethics at this stage and helped to evaluate my knowledge and expand it a little more.

Yours sincerely,

Sujan Pradhan

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LIST OF ABBREVIATIONS

CG	Chasma Ghar
CSS	Cascading Style Sheet
DFD	Data Flow Diagram
ERD	Entity Relationship Diagram
HTML	Hyper Text Markup Language
JS	JavaScript
OTP	One Time Password
RAM	Random Access Memory
UI	User Interface

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CHAPTER: 1

INTRODUCTION

1.1 Introduction

The ‘Chasma Ghar’ (CG) web application strives to provide solutions to develop and transfer easy and difficult and efficient way in the digital age and to help reduces the human pressure and time. It is a web applications written for many of the operating systems, designed to help users maintain and organize shop the products virtually. This software is easy to use for both beginners and advanced user. It features a familiar and well thought out, and attractive user interface, combined with strong searching insertion and reporting capabilities.

It is a web-based application that focuses primarily to the online glasses and spectacles ecommerce. E-commerce and Internet based sales transaction for sunglasses is increasing becoming popular Tangible benefits for shopping sunglasses online include convenience, time and cost savings, and greater choices without geographical constraints. Customer get many benefits via online shopping this helps e-commerce companies to build long – lasting and profitable relationship with their customers.

For making strong relationship with these users it is very important to focus on the customer as a whole and making sense of a flood of real – time information that goes well beyond demographics or shopping behavior. There are two entities who will have the access to the system. One is the admin and another one will be the registered user. Admin can add products details, view all the order list details and can also view the sale of the products. User need to register with basic registration details to generate a valid username and password. After the user logins, it can view all the products that are recommended on the homepage complied by the system based on the user’s information. From the recommended products, the user can even further view its details and then if interested to buy, the system gives add to cart option for purchasing the product. After selecting the product, user can do payment for the particular product online. Users can view their order history of their purchased product.

1.2 Problem Statement

- The information is very difficult to retrieve and find particular information like --to find about the spectacles based on the price category, the users have to go through the various registration procedure. This result in inconvenience and wastage of time.
- Various changes to information like change in price of the products, user details etc. are difficult to make.
- While searching for glasses and spectacles related products there are no such one stop systems available.

1.3 Objectives

- To organize, standardize and goal of buying glasses towards perfectionism.
- To convert the manual apparel shopping into digital method
- To reach the maximum customers at the right time to increase sales and profitability.
- To offer a quality experience of customers that matches the aspirations of a customer
- Managing security by providing authorized email and password and manage database efficiently

1.4 Scope and Limitation

1.4.1 Scope of project:

Purchasing and selling products and services over the internet without the need of going physically to the market is what **"Chasma Ghar"** all about. It is just like a glasses store shopping that we do by going to the market, but it is done through the internet. It has made the shopping painless and added more fun. It offers product descriptions, pictures, comparisons, prices, and much more. Few examples of these are Lenskart.com, Glazziq.com and the benefits of online glasses shopping is that by having direct access to consumer, the online stores can offer products that cater to the needs of consumer, cookies can be used for tracking the customer selection over the internet or what if of their interest when they visit again.

Chasma Ghar is one of the important facility provided in online shopping, this lets customers to browse different glasses products and services and once they select an item to purchase they can place the item in shopping cart, and continue browsing till the final selection. Customers can even remove the items from the shopping cart that were selected

earlier before they place the final order. It reminds us of shopping basket that we carry in departmental store.

1.4.2 Limitations:

- A major limitation of this web application is its dependency on the availability of the internet and the devices needed to browse the internet through, such as laptops and mobile devices.
- It takes longer period to deliver the product to the customer after purchasing it online.
- It does not allow the consumer to experience the product physically before buying it, which results in many shortcoming.

1.5 Development Methodology

The project is built using modified waterfall methodology. This project is built is built with required and specific documentation, fixed requirements and enough time. It is a linear project management approach where requirements are gathered at the beginning of the project and the sequential plan is created to accommodate those requirements, thus the project is easily developed following the modified waterfall methodology.

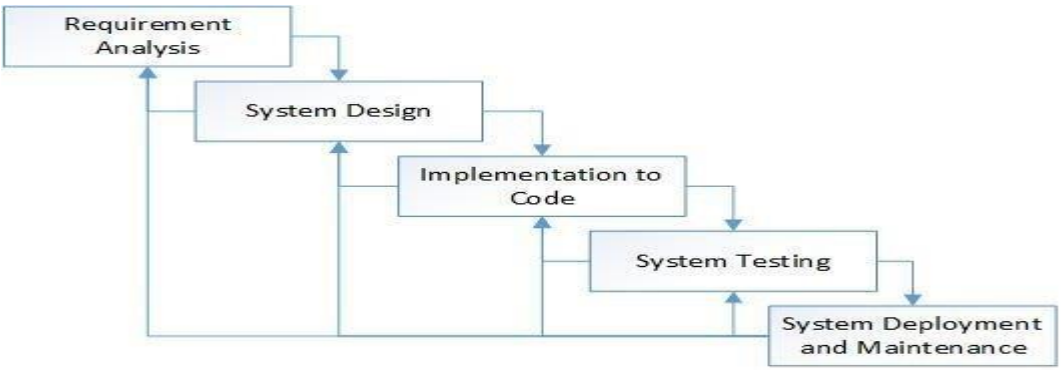


Figure 1: Modified Waterfall Methodology for Chasma Ghar

1.6 Report Organization

INTRODUCTION

This section includes the overall view of the project i.e. the basic problem definition and the general overview of the problem which describes the problem in layman terms. It also specifies the objectives of the system with its scope as well the limitations. It also mention about the methodology used while developing this project.

BACKGROUND STUDY AND LITERATURE REVIEW

This section includes the description of fundamental theories, general concepts and terminologies related to the project. It also consists the review of the similar projects, theories done by other researchers too.

SYSTEM ANALYSIS AND DESIGN

This section includes the different requirement analysis i.e. functional requirements (Use-case descriptions) and the non-functional requirements. It contains about the different feasibility analysis such as technical feasibility, operational feasibility and economic feasibility. It contains different technical diagrams like the Data Flow Diagram and the Entity Relationship diagram. And also contains architecture design, database schema design, interface design (UI/UX) and the physical DFD.

IMPLEMENTATION AND TESTING

This section describes the different technologies or tools used for the entire development process of the Front-end as well as the Back-end development of the application. It also contains the different implementation details of the modules. It also describes the different testing case such as Unit Testing and System Testing.

CONCLUSION AND FUTURE RECOMMENDATIONS

This section has the summary and the screenshots of all the implementation i.e. user interface and their description. It also mentions about the future recommendations for the system that can be done in the near future.

CHAPTER: 2

BACKGROUND STUDY AND LITERATURE REVIEW

2.1 Background Study

It is a web based application that focuses primarily to the online glasses and spectacles ecommerce. E-commerce and Internet based sales transaction for sunglasses is increasing becoming popular Tangible benefits for shopping sunglasses online include convenience, time and cost savings, and greater choices without geographical constraints. Customer get many benefits via online shopping this helps e-commerce companies to build long – lasting and profitable relationship with their customers. For making strong relationship with these users it is very important to focus on the customer as a whole and making sense of a flood of real – time information that goes well beyond demographics or shopping behavior. There are two entities who will have the access to the system. One is the admin and another one will be the registered user. Admin can add products details, view all the order list details and can also view the sale of the products. User need to register with basic registration details to generate a valid username and password. After the user logins, it can view all the products that are recommended on the homepage complied by the system based on the user's information. From the recommended products, the user can even further view its details and then if interested to buy, the system gives add to cart option for purchasing the product. After selecting the product, user can do payment for the particular product online. Users can view their order history of their purchased product.

2.2 Literature Review

Many researches have been carried out on ecommerce for spectacles and glasses mainly focusing on customer's satisfaction through online shopping, online paying, some of the researches done in ecommerce system are listed below:

The experience of online shopping for sunglasses online is different than that of shopping at conventional brick-and –mortar retail outlet. During conventional shopping, the consumer is able to wear and feel a product before purchasing it. This enables the consumer to make a quick decision on whether to buy the product or find another product that the consumer would be more satisfied with. There is also interaction between the consumer

and the product seller during conventional shopping that could build trust and would normally enhance the success rate of sales transaction [1].

During online shopping of sunglasses, a consumer is limited to selecting products based on pictures, prices and brands. Occasionally, some website provides visualization tools such as superimposition of the product on the consumer's face. Nevertheless, the consumer cannot wear and feel the products. This makes the physical design of the sunglasses more crucial as a key feature in selling sunglasses in the Internet [2].

In an e-Commerce study by [3] conducted across Colombia, France, Germany, Netherlands, South Africa and United Kingdom, it was found that differences are found in the attention paid to various information. For instance, South Africans requires higher information needs for product description, product images, pricing and expert information about quality. But little is known about the customers' behavior in Malaysia. Since Malaysian suffer from significant power distance based on Hofstede's theory, there is a high tendency that the product pricing is an attribute of high interest to Malaysians [4]. Hence, product price is chosen as the variable to be place together with the brand and product photo.

CHAPTER: 3

SYSTEM ANALYSIS AND DESIGN

3.1 System Analysis

System analysis refers to the process of examining a situation with the intent of improving it through better procedures and methods. System Analysis is the process of planning a new system to either replace or complement an existing system. But before any planning is done the old system must be thoroughly understood and the requirements determined. System analysis is therefore, the process of gathering and interpreting facts, diagnosing problems and using the information to re-comment improvements in the system. System analysis is conducted with the following objectives in mind:

- ✓ Evaluate the system concept for feasibility.
- ✓ Perform technical, economic and operational analysis.
- ✓ Allocate functions to hardware, software, database and other system elements.

3.1.1 Requirement Analysis

For this system, requirements are basically identified through the functional and non - functional requirements

i. Functional Requirements

It functions of a system or its component, which involve calculations, technical details, data manipulation and processing, and other specific functionality that define what a system is supposed to accomplish. In order to the system functional, we require the following

Table 1 : Functional Requirements for Admin

Title	Introduction	Input	Processing	Output
Admin Registration	New Admin Account Creations	Admin Details along with phone number and email	Verifies admin details entered by Admin	Admin details get stored in the database
Admin Login	Verify the admin username and password	Enter username and password	Verify the username and password from the database	Displays admin dashboard
View Product Details	Products details viewing	Enter the product id	Search the given id	Display the Product details
Verify Product Details	New product details addition	Product details along with the image	Verifies whether the Products already exist or not	New Product details get stored in the database.
View Booked Products	Booked product viewing	Admin name and password	Getting booked product details from database	Display booked product details
Remove Product	Product remove or delete	Product id	Removing the product from the system	Product details stored in database get deleted

Table 2: Functional Requirement for Users

Title	Introduction	Input	Processing	Output
View Products	Searching for the products	Spectacles type, Brand name	Getting Product details from the database	Displays the product details
User Registration	New user registration	User details along with name, email and phone number	Verifies whether user is already exist or not	New user details get stored in the database
User Login	Verify username and password	Enter username or email and password	It will verify the username and password	Display the home page
View Product Details	New product details viewing	Product details along with the id or name	See all the product details with image	Product details get extracted from the database.
Add Booking	Product booking	Username, password , phone number	Choose product is booked	Product details get stored in database
View Booked Product	Booked product viewing	Username and password	Getting booked products details from the database	Display Booked product details

ii. Non Functional Requirements

Availability

This system will be available for 24 hours services as users can apply from anywhere and at any time.

Performance

The performance of the system will be fast and accurate as it will provide fast response to the use's actions. The system will handle expected and unexpected errors and also large amount of data.

Reliability

The system will be reliable as it will perform function and run without a failure and it has to be reliable due to importance of data and damages that can be caused by incorrect or incomplete data.

3.1.2 Feasibility Analysis

A feasibility study is a high level capsule version of the entire System Analysis and Design Process. The study begins by classifying the problem definition. Feasibility is to determine if it's worth doing. Once an acceptance problem definition has been generated, the analyst develops a logical model of the system. A search for alternatives is analyzed carefully. There are 3 parts in feasibility study.

i. Technical Feasibility

This involves questions such as whether the technology needed for the system exists, how difficult it will be to build, whether the firm has enough experience using that technology. The assessment is based on outline design of the system requirements in terms of input, process, output fields, programs and procedures. It is an evaluation of the hardware and software and how it meets the need of the proposed system.

ii. Operational Feasibility

The system is easy to operate with the basic knowledge of computer and internet and well trained manpower is not necessary. User can also easily access the system as it is user friendly in many aspects with good User Interface (UI). This system include all the requirements used for sponsorship system and this system is completely operational and can be successfully implemented and administration feel easy to use this system as it is user-friendly.

iii. Economic Feasibility

Establishing the cost effectiveness of the proposed system i.e. if the benefits do not outweigh the costs then it is not worth going ahead. In the fast paced world today there is a great need of online social networking facilities. Thus the benefits of this project in the current scenario make it economically feasible. The purpose of the economic feasibility assessment is to determine the positive economic benefits to the organization that the proposed system will provide. It includes quantification and identification of all the benefits expected. This assessment typically involves a cost/benefits analysis.

iv. Schedule Feasibility Study

The system is completed within scheduled time and do not exceed the scheduled time.

Table 3: Gantt chart Table for Chasma Ghar

Task Name	Duration
Getting Started	2 weeks
System Design & Architecture	2 weeks
Implementation	7 weeks
Deployment	4 weeks
Documentation	12 weeks

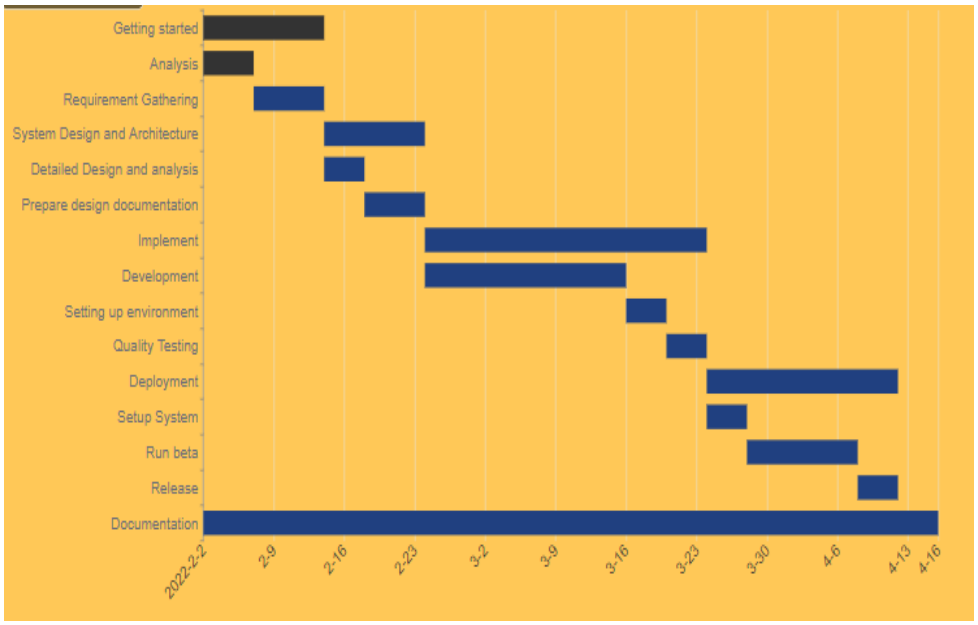


Figure 2: Gantt chart for Chasma Ghar

3.1.3 Data modeling: ER Diagram

In Entity-Relationship diagram there are six entities named admin, customer, product, category, order-items and orders. Admin has attribute like Admin id, name, password, email. Likewise Customer has Customer id, name, password, email, phone, address and Category has attributes like Category id, name. Product has product id, name, price, stock, description, image, category and rating. Similarly Order has order id, order-items, shipping address1&2, city, zip, country, status, phone, total_price, customer and date of order.

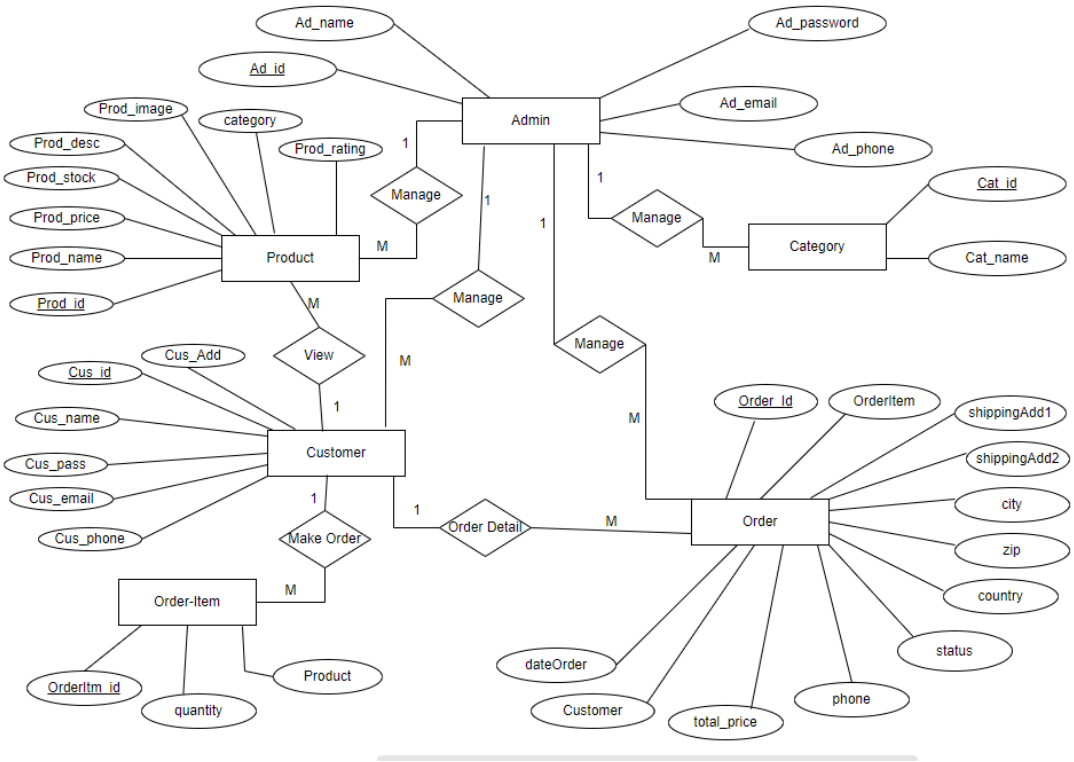


Figure 3 Entity Relationship Diagram for Chasma Ghar

3.1.4 Process Modeling: DFD

Data Flow Diagram of Chasma Ghar consists of DFD context diagram and level one dfd. Both these levels are used for making data flow diagram of CG.

In context diagram, the login request, register, product information are the input of CG where customers and admin request for login, customers register, customers enquiry about the products and apply to buy the product. The login response, details about the product are the output where admin and customers get response about login success or cancel, admin get details of customers and customers get details about the different products.

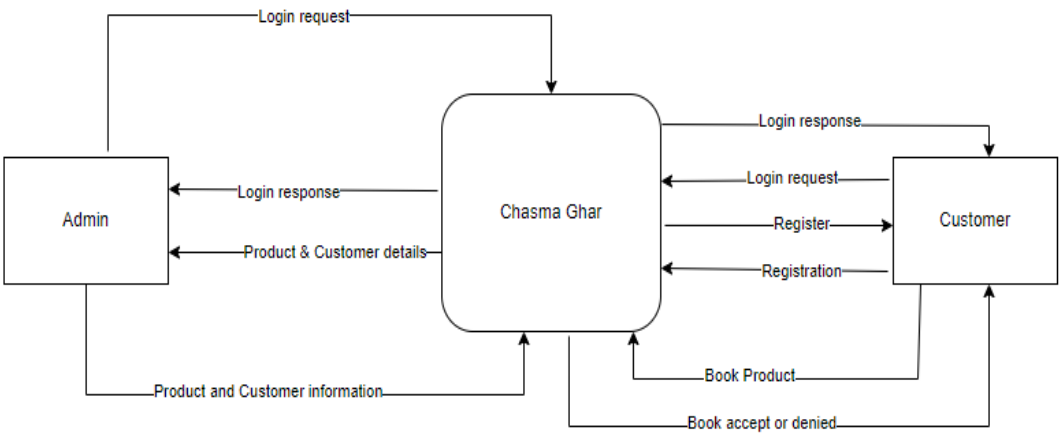


Figure 4(a) Level 0 DFD for Chasma Ghar

In level 1 DFD, there are five processes where for login, process 1 is responsible, for managing category of product, process 2 is responsible likewise process 3, 4, 5 are for post product, managing details customer, product and for booking product. There are two entities admin and customer and four data store are used in this level of DFD such as user's details, category details, product details and customer details.

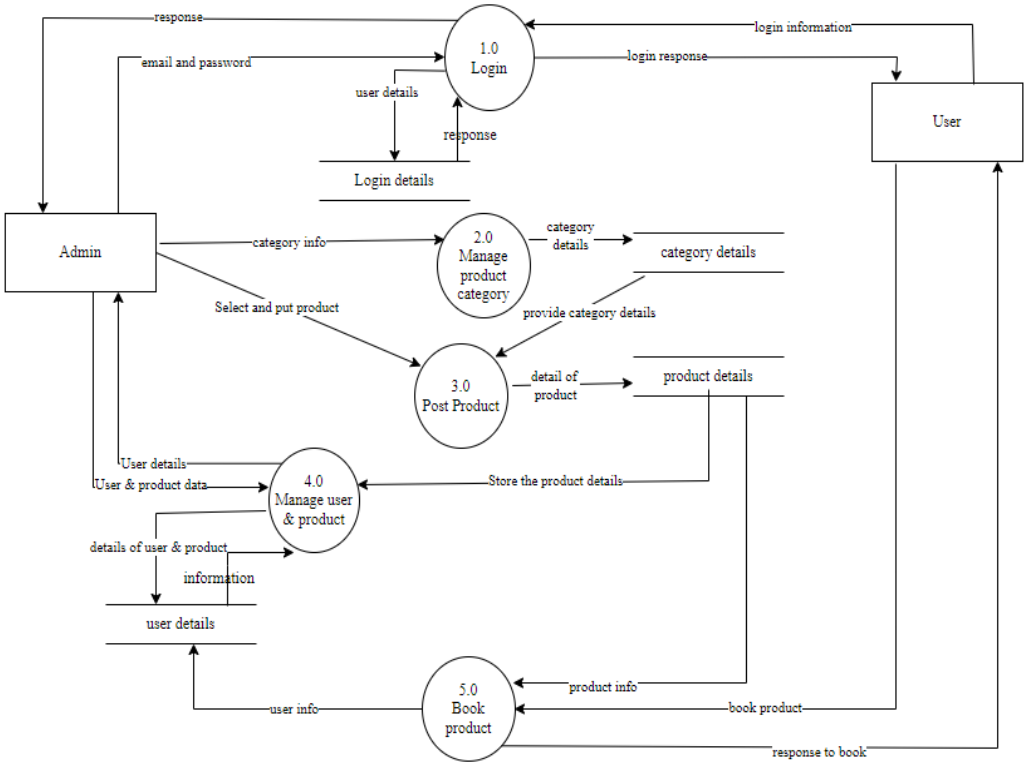


Figure 5 (b) Level 1 DFD for Chasma Ghar

3.2 System Design

To realize the different functional requirement of the system in graphical form, different design diagram of the system has been prepared which are as follows:

3.2.1 Architectural Design

For this system, three tier architecture is used which includes user interface, web server and database. In architectural design, basic structure of the system is shown.

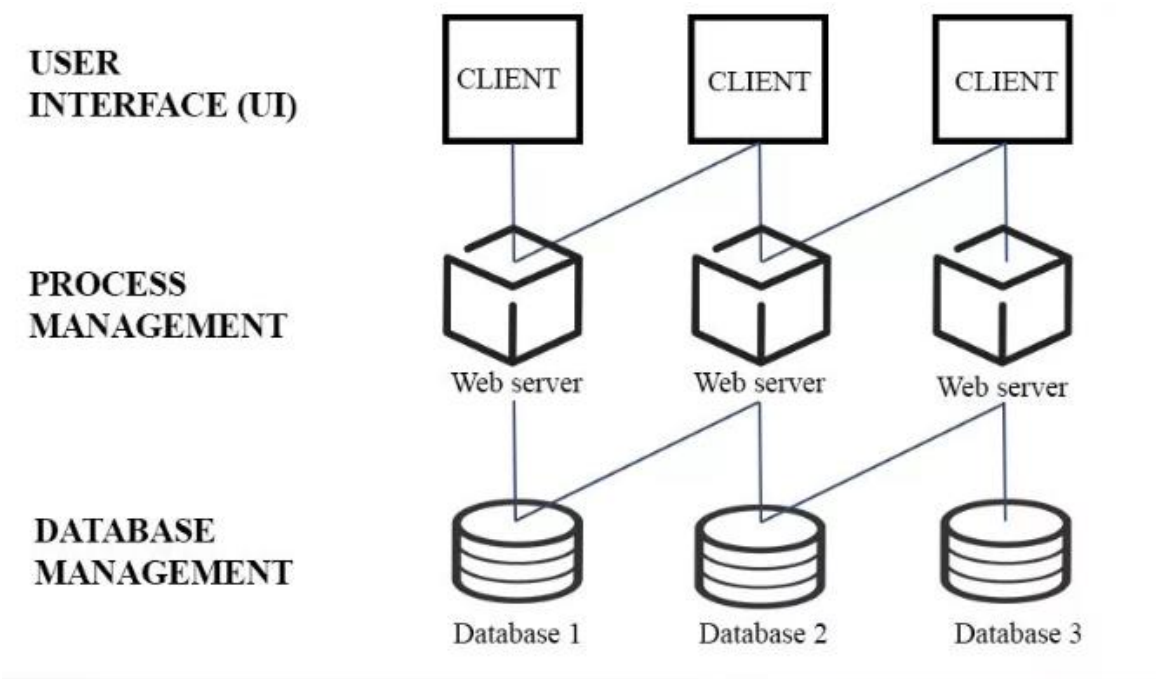


Figure 6 Architectural Design for Chasma Ghar

3.2.2 Database Schema Design

The figure below is the database schema design of Chasm Ghar. Database schema design is used to show basic structure of the system. In Chasma Ghar, there are six tables in the databases each of them has their own fields where id is primary key and if that id is used in another table it becomes foreign key and foreign key are connected to another table with a line. There is data type of each entity and the foreign key in schema is represented by the arrow as shown in the diagram.

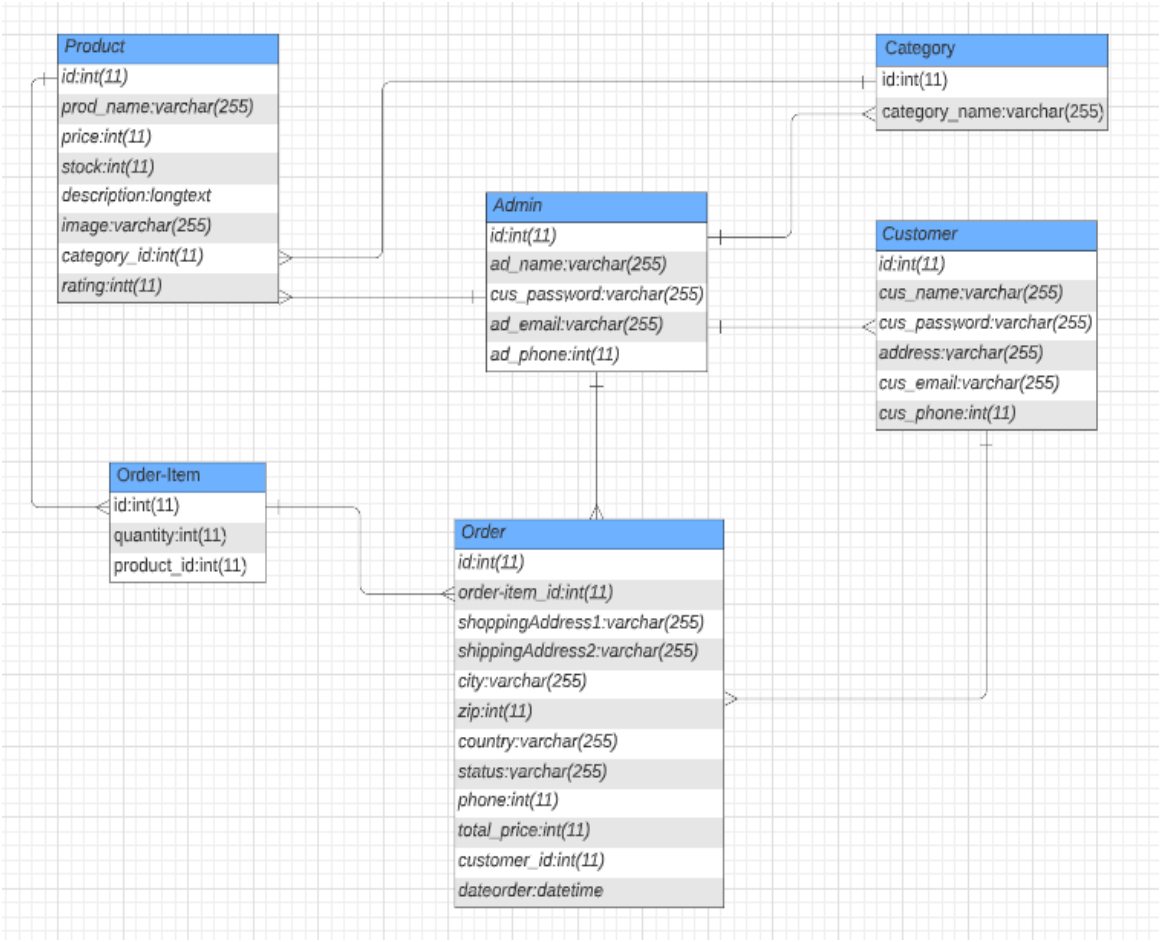


Figure 7 Database Schema Design of Chasma Ghar

3.2.3 Interface Design (UI Interface)

Interface design is used to design how the Chasma Ghar looks like and this design is shown to user that how the system will look. And after finalizing the system development starts. The UI design of home page, register page, login page and dashboard page of Chasma Ghar are shown below:

Home Page

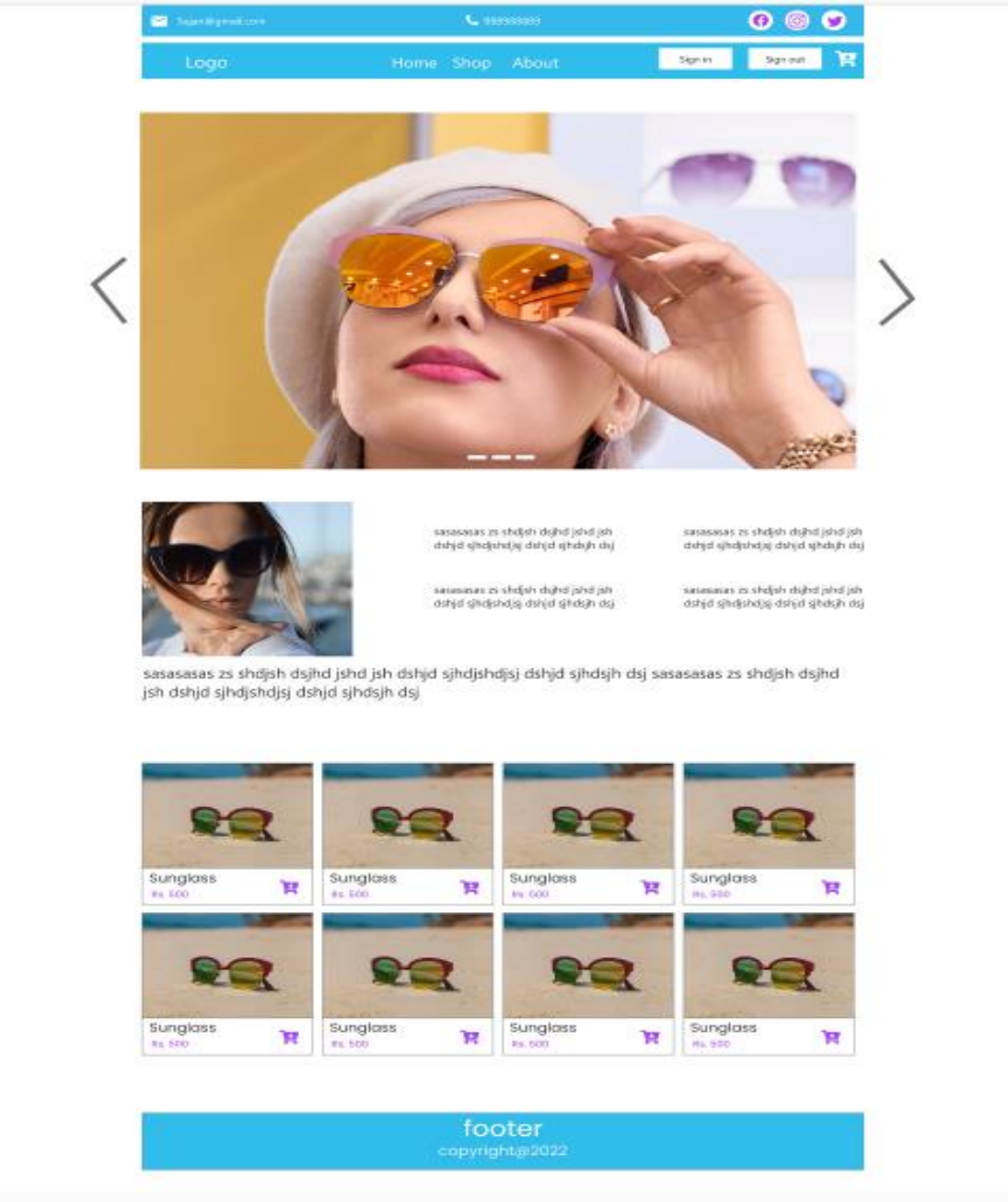


Figure 8: User Interface Design for Home Page

Admin Dashboard

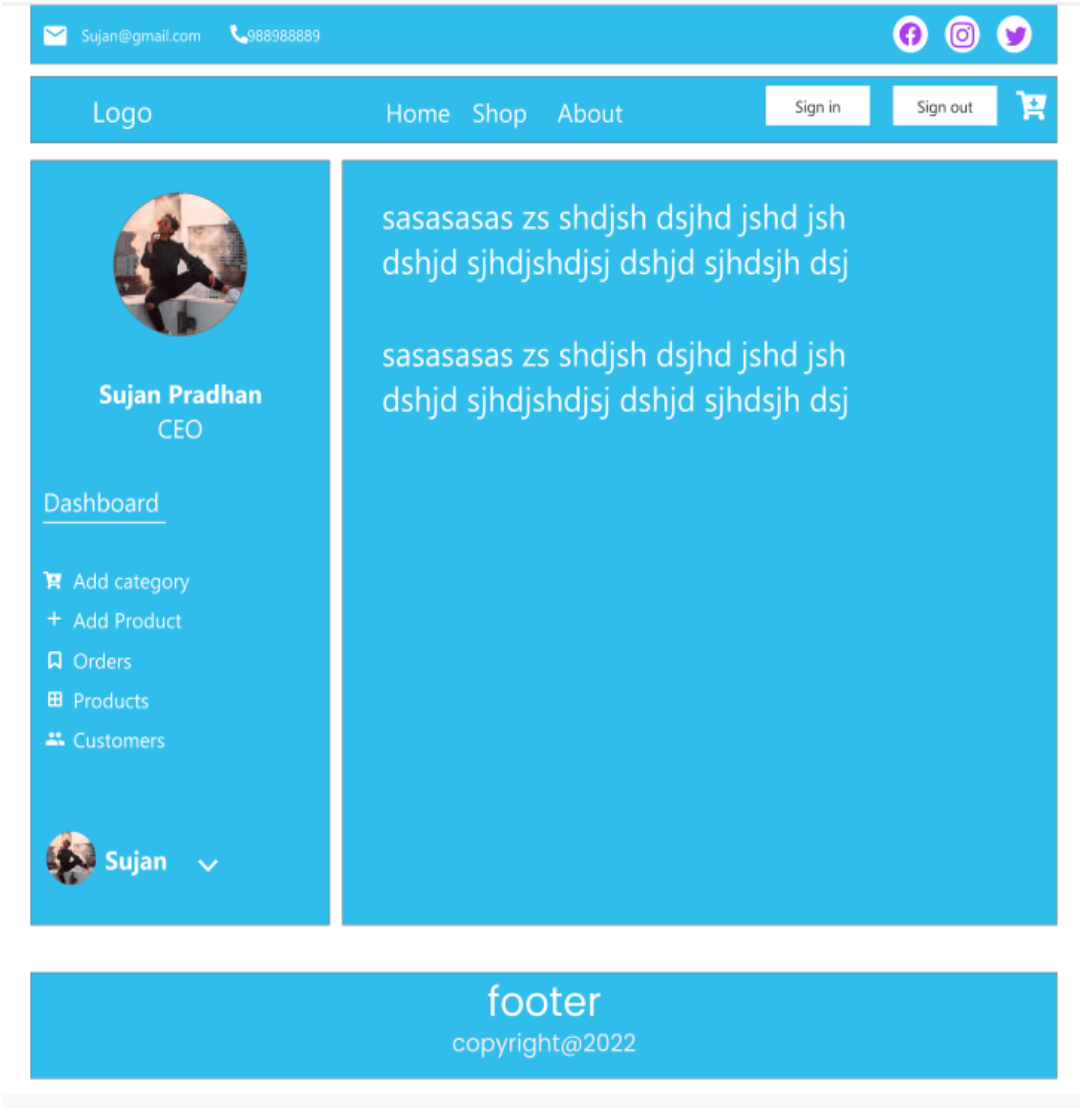


Figure 9: User Interface Design for Admin Dashboard

SignUp Form

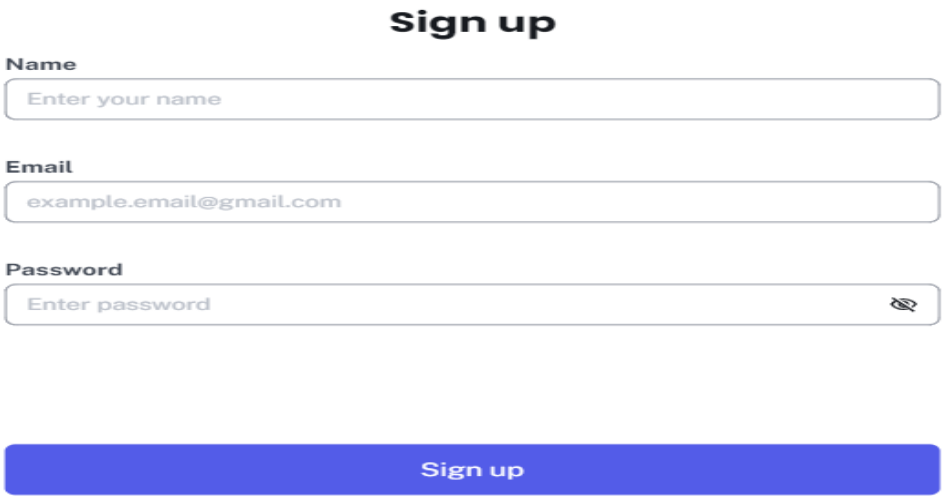


Figure 10: User Interface Design for Sign Up

SignIn Form

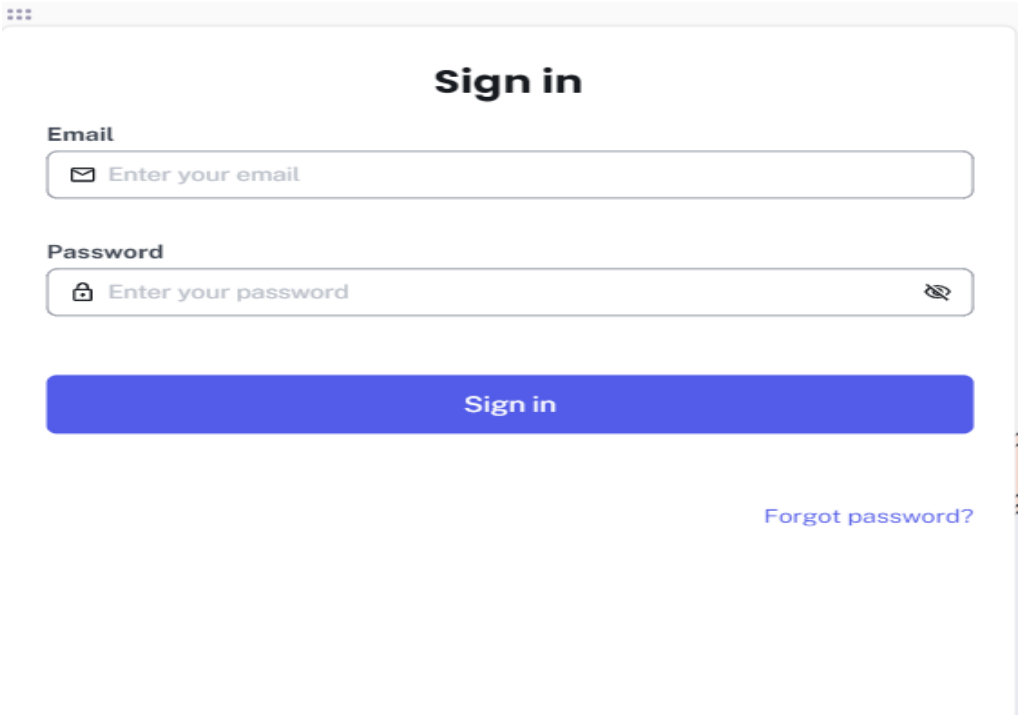


Figure 11: User Interface Design for Sign In

3.2.4 Physical DFD

Here, customers register and login to the system, if it is successful then customer's information is stored in the database and then they can apply and or order for the products. All the customer's details and the orders are stored in the database.

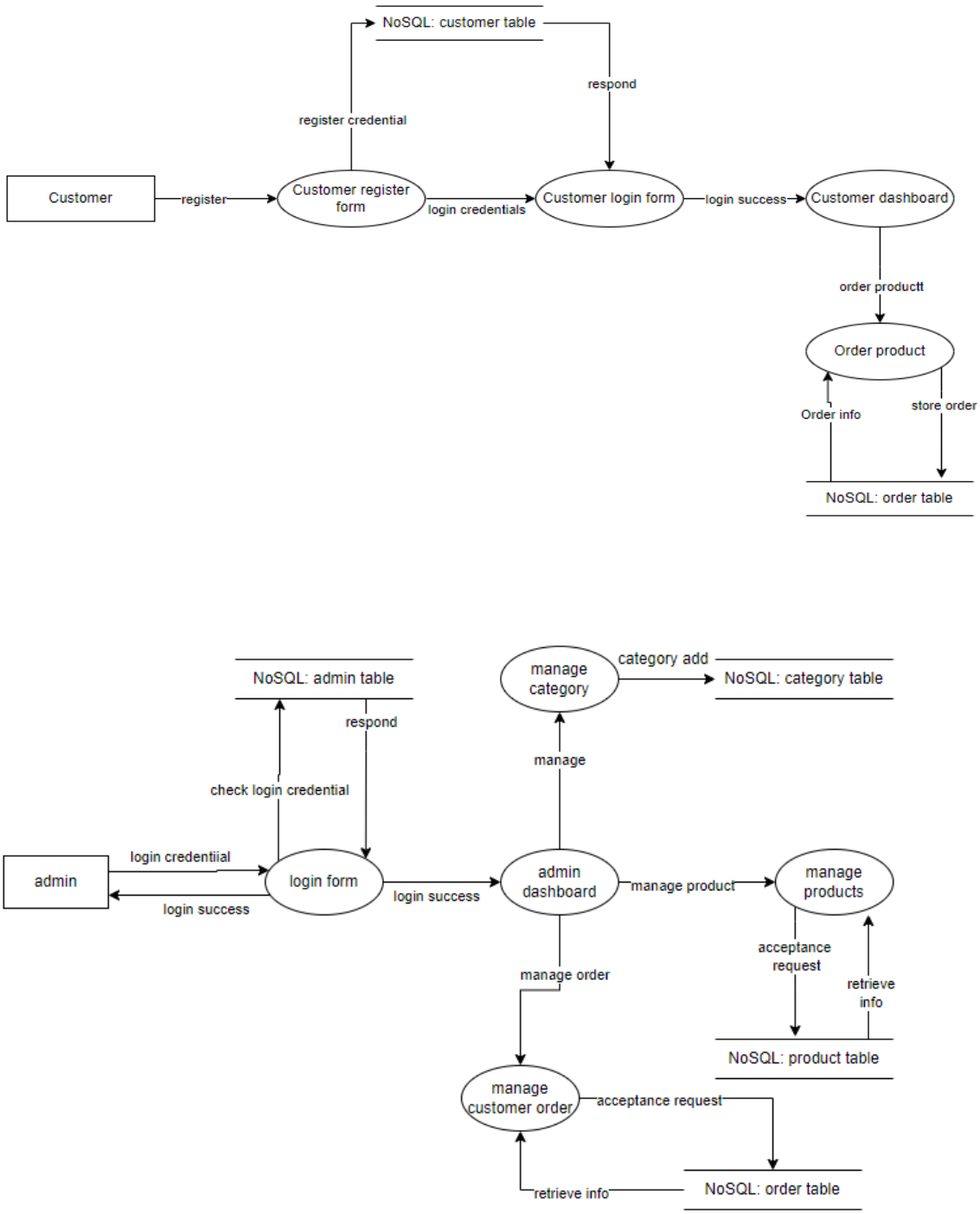


Figure 12: Physical DFD of Chasma Ghar

3.3 Algorithms

Filtering Algorithms

The idea behind filtering algorithms is that it might be easier to check that a text position does not match a pattern string that to verify that does.

Filtering algorithms filter out portions of the text that cannot possibly contain a match, and, at the same time, find positions that can possibly match.

Filtering algorithms are very sensitive to the error level $\alpha := k/m$ since this normally affects the amount of text that can be discarded from further consideration. (m = pattern length, k = errors).

If most of the text has to be verified, the additional filtering steps are an overhead compared to the strategy of just verifying the pattern in the first place.

On the other hand, if large portions of the text can be discarded quickly, then the filtering results in a faster search.

The idea behind the presented filtering algorithm is very easy. Assume that we want to find all occurrences of a pattern P = p1 , ... , pm in a text T = t1 , ... , tn that have an edit distance of at most k.

If we divide the pattern into k + 1 pieces P = p 1 , ... , p k+1, then at least one of the pattern pieces has to match without error.

The basic procedure is:

1. Divide: Divide the pattern into k + 1 pieces of approximately the same length.
2. Search: Search all the pieces simultaneously with a multi-pattern string matching algorithm. According to the above lemma, each possible occurrence will match at least one of the pattern pieces
3. Verify: For each found pattern piece, check the neighborhood with a verification algorithm that is able to detect an occurrence of the whole pattern with edit distance at most k. Since we allow indels, if pi1 ... pi2 matches the text t j ... t j+i2−i1 , then the verification has to consider the text area t j−(i1−1)−k ... t j+(m−i1)+k , which is of length m + 2k.

CHAPTER: 4

IMPLEMENTATION AND TESTING

4.1 Implementation

4.1.1 Tools used (CASE tools, programming languages, database platforms)

Following are the tools and the framework used for the accomplishment of this project.

Front End Tools

- **HTML**

In Chasma Ghar, html is used for creating different webpage and sites. It is used to create structure sections,

- **CSS**

In Chasma Ghar, css is used for designing different tags of html. It is also used to design different component by the help of class. Different css are used such as inline css, internal css and external css to design this system. It is used for defining the styles for web pages. By using css, we can control the text color, font style, the spacing between paragraphs, sizing of columns, layout designs, and many more.

- **JavaScript**

In Chasma Ghar, JavaScript is used for client-side validation and to make dynamic, interactive and responsive web pages. It is used to add dynamic behavior to the webpage and add special effects to the webpage.

Back End Tools

- **Node JS**

In Chasma Ghar, Node JS is used for server side programming. It helps to run in a single process, without creating a new thread for every request. It provides a set of asynchronous I/O primitives in its standard library that prevent JavaScript from blocking and generally, libraries in Node.js are written using non-blocking paradigms, making blocking behavior the exception rather than the norm.

Documentation Tools

- **MS Office**

  This is used for writing and editing the documentation of Chasma Ghar.

- **Draw.io**

  This is used to generate diagrams for the system analysis and design of Chasma Ghar. Diagrams were created using this tool in order to save time since all components are available with drag and drop functions.

4.1.2 Implementation Details of Modules (Description of procedures/ functions)

Different modules of this system are described as below:

Admin Module

- **Admin add/update/delete category**

  In this module, there are different categories for different products. Admin can add, list, update and delete the categories in this existing system. The admin start the action add by clicking on add category item button, admin can add the product category. The admin can perform the category details by clicking on the details of categories. The page displays all the list of the category from the database and admin can view the list of product categories. Likewise, admin can perform update and delete action by clicking update and delete items button. And the admin then chooses the product category they want to update and delete by clicking on update and delete items.

- **Admin Manages Customers**

  Admin can manages the details and information about the customers. The customers. The customers are categories by name, address, password, email and phone. The admin can view the details of the customers. Admin can also view the list of the customers which are stored in the database.

- **Admin Manages Orders**

  Admin can manages the details and information about the orders from the customers. The orders are categories by OrderItem, Customer, shippingAdd1, shippingAdd2, city, zip, country, status, phone, total_price and dateOrder. Admin deals with these order whether proceed or not and make the status accordingly. Admin can view the orders given by the customers by clicking on the list orders item button. The page displays all the list of the orders which are stored in the database.

- **Admin Manages Product**

  Admin can also manages the details and information about the products. The products are categories by name, price, stock, description, image, category and rating. The admin can add new products into the existing system by entering their details and information by clicking on the add products item button. Admin can also update and delete the products by clicking in the update and delete item button. Likewise, admin can view all the list of the products by clicking on the list products item button. The page displays all the list of products which are stored in the database.

Customer Module

Customers' first register into the system by entering all the details such as name, address, email, password, phone which are required for registration. And then can login to the system with their email and the password which were given at the time of registration. After login, they can view the different products category and products along with their name, images, prices and other many more stuffs. They can order the products which are necessary or required for them to buy. They can order for different products in which category they want to order by filling up the order form which includes details of the products such as customer name, order_item, shippingAddress1, shippingAddress2, zip, city, country, phone, category name, total_price, orderAt. And after filling up the order form they can get the products only after admin approve their products order.

Category Module

In this module there are different category of the glasses such as sunglasses, blue ray cut, power glass etc. The customers can view the category of the glasses which helps to find the products fast. They can apply for the product by looking at the category of the different products.

Product Module

In this module, there are different types of products in the different category which the customers can view the product and apply for the products after viewing the products. Here admin can make edit, update, delete and retrieve the products.

Login Module

In login module, we have implemented two sub modules they are admin login and customer login. Admin and customers log into the system using their valid email and password.

Register Module

In register module, we have implemented one modules that is customers register. Customers register into the system by entering all the details such as name, address, email, password, phone which are required to register. And then can log into the system with their valid email and password.

4.2 Testing

System testing is done by giving different training and testing data sets. This test is done to evaluate whether the system is providing accurate summary or not. During the phase of the development of the system, our system is tested time and again. The series of testing conducted are as follow:

4.2.1 Test Cases for Unit Testing

In unit testing, we designed the entire system in modularized pattern and each module is tested. Until getting the accurate output from the individual module, I work on the same module. The input forms is tested so that they do not accept invalid input.

Customer Registration

Table 4: Test case for User Registration of Chasma Ghar

S.NO.	Test Name	Input	Expected Output	Actual Output	Test Result
1.	Open Registration Form	http://localhost:5000/api/postregister	Confirmation mail	Confirmation mail	Pass
2.	Enter invalid name,address, email,password, phone and click register button	Name: Sujan Pradhan Address: Ilam Email: pradhansujan.com Password:1234 Phone: 989898989898	Email is invalid	Registration failed	Pass
3.	Enter invalid name,address,email,password, phone and click register button	Name: Sujan Pradhan Address: Ilam Email: pradhansujan3@gmail.com Password:1234 Phone: 989898989898	Registration Successful	Registration Successful	Pass

Customer Login

Table 5: Test case for Customer Login of Chasma Ghar

S. No.	Test Name	Input	Expected Output	Actual Output	Test Result
1.	Open Login Form	http://localhost:5000/api/signin	Login page	Login Page	Pass
2.	Enter email and invalid password	Email:pradhansujan3@gmail.com Password:123456	Login failed and email or password do not match	Login failed	Pass
3.	Enter email and password	Email:pradhansujan3@gmail.com Password:123456789	Login successful and redirect to dashboard	Redirect to Dashboard	Pass

4.2.2 Test cases for System Testing

In system testing, whole system is tested as below:

Test Case for Order Success

Table 6: Test Case for order success of Chasma Ghar

Test Case 1	Successful Order
Test Data	OrderItem: quantity:3, price:1200 Customer: Name:Sujan Pradhan, address:Ilam, phone:9898989898, email:pradhan12@gmail.com, password:123456789 ShippingAddress1: Koteshwor, ShippingAddress2: Sahayoginagar City: Kathmandu Zip:44600 Country: Nepal Status: Pending Phone:989898989898 Total_price:3600 dateOrder: 2022-04-28
Expected Result	A message should display saying “Order Success”
Test Result	Order Success

Test Case for Order Failure

Table 7: Test Case for order failure of Chasma Ghar

Test Case 2	Failure Order
Test Data	OrderItem: quantity:3, price:1200 Customer: Name:Sujan Pradhan, address:Ilam, phone:9898989898, email:pradhan12@gmail.com, password:123456789 ShippingAddress1: ShippingAddress2: Sahayoginagar City: Kathmandu Zip:44600 Country: Nepal Status: Pending Phone:989898989898 Total_price:3600 dateOrder: 2022-04-28
Expected Result	A message “shippingAddress1 is required” should display
Test Result	A message “ shippingAddress1 is required” is displayed

Category Add

Table 8: Category Add of Chasma Ghar

Test Case	Expected Data	Test Result
On click of Add	Adds the new product category	Successful
On click of Details	List the product category	Successful
On click of update	Update the product category	Successful
On click of delete	Delete the product category	Successful

Product Add

Table 9: Product Add of Chasma Ghar

Test Case	Expected Data	Test Result
On click of Add	Adds the new product	Successful
On click of Details	List the product details	Successful
On click of update	Update the product	Successful
On click of delete	Delete the product	Successful

CHAPTER: 5

CONCLUSION AND FUTURE RECOMMENDATIONS

5.1 Lesson Learnt / Outcome

Every project makes us to learn and gain the knowledge in different aspects. In the following project, I have learned lots of problem-solving skills and learn things like finding solution on my own, proper use of guidelines, communications and writing skills and management of the project.

- **Problem Solving**

  From this project, I have learned lots of problem-solving skills and also learned to recognize different errors occur in this system and solve it.

- **Writing Skills**

  I have learned how to prepare proposal and documentation related with the project and also learned to use different case tools for data flow diagram, context level diagram, and ER-diagram and so on.

- **Manage Time**

  The most important lesson that I had learnt was management of time according to the complexity of the system components i.e. know which components to prioritize.

5.2 Conclusion

The Chasma Ghar system has been successfully developed with predefined objectives. This system fulfill all the objectives that have been set to develop this system and this system can be viewed by any user without registering but the customer have to register and login the system to order for the products. This system also provide easy and smooth user interface that can be used by non-technical users. This system becomes the bridge between the customers and the products as this system provide information about different categories of the product to the customers and customers can get all the information about categories of the product and the customers can order for the product which they want to buy. This system manages and organizes all the data and information of the products and customers as well as admin too.

5.3 Future Recommendation

The development project could have been more efficiently handled with regards to design and development. The documentation process might have been better programming the project prior to any documentation. The system can be updated based on the customer's requirements and recommendations. The page load and server load speed might be improved.

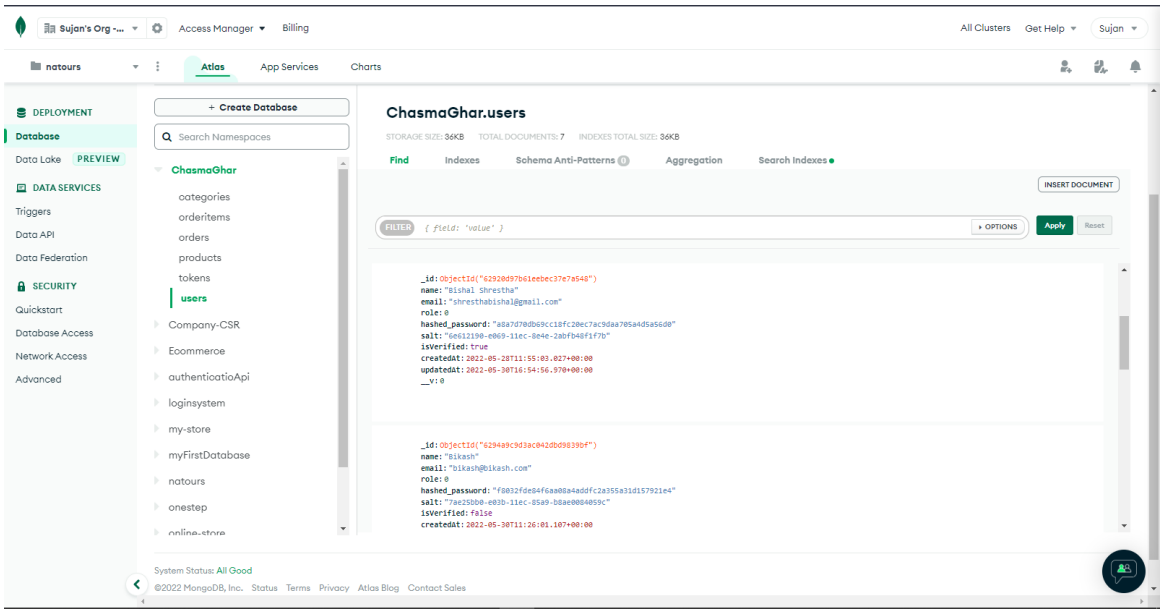
Some of the future recommendations for this system are:

- Adding the better and easy features of payment system.
- OTP (One Time Password) feature can be added.

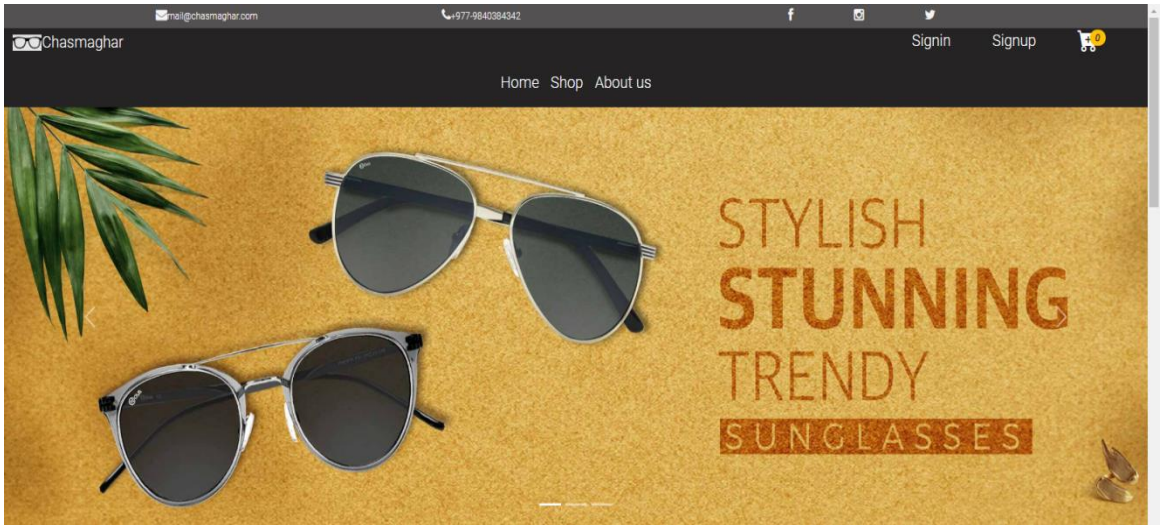
APPENDICES

Screen Shots

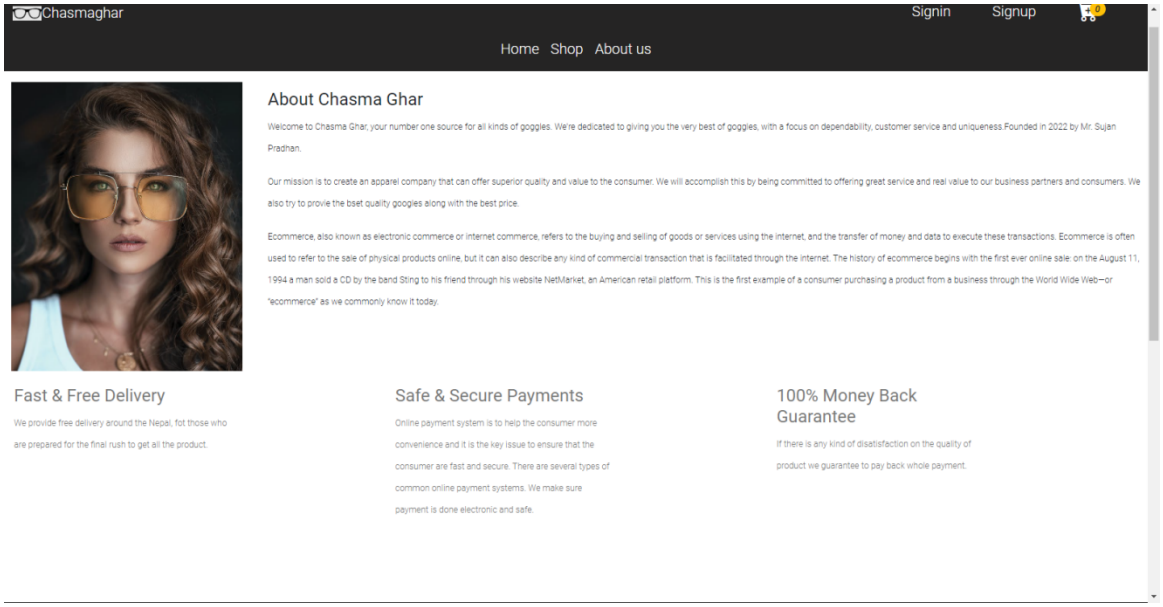
- Database



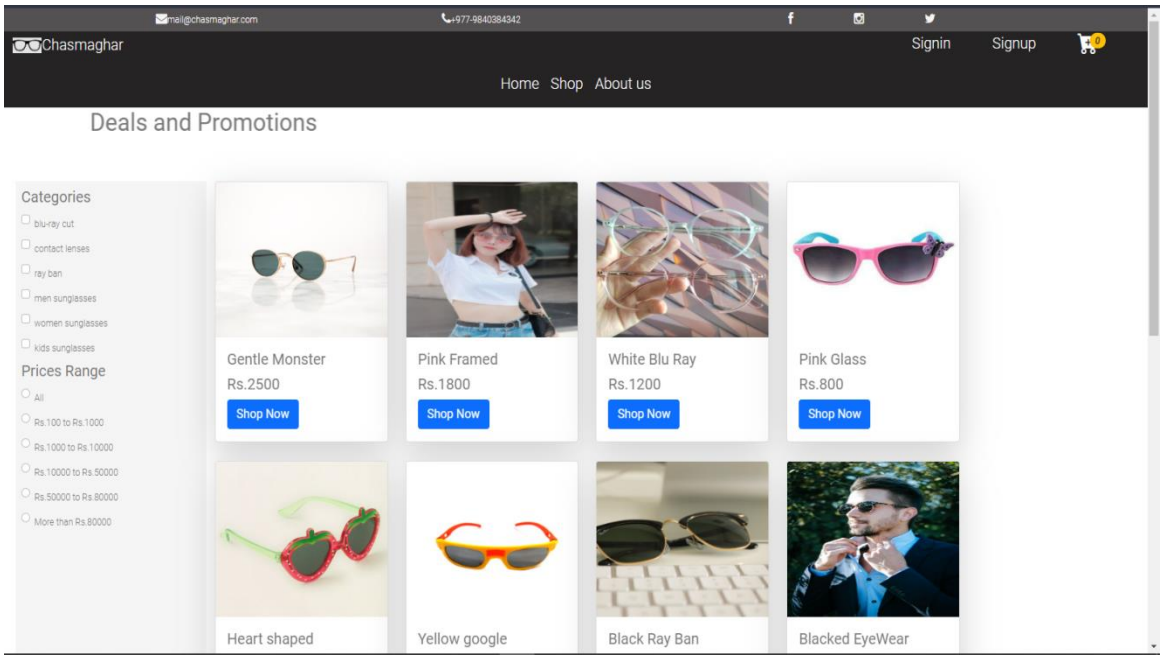
- Home Page



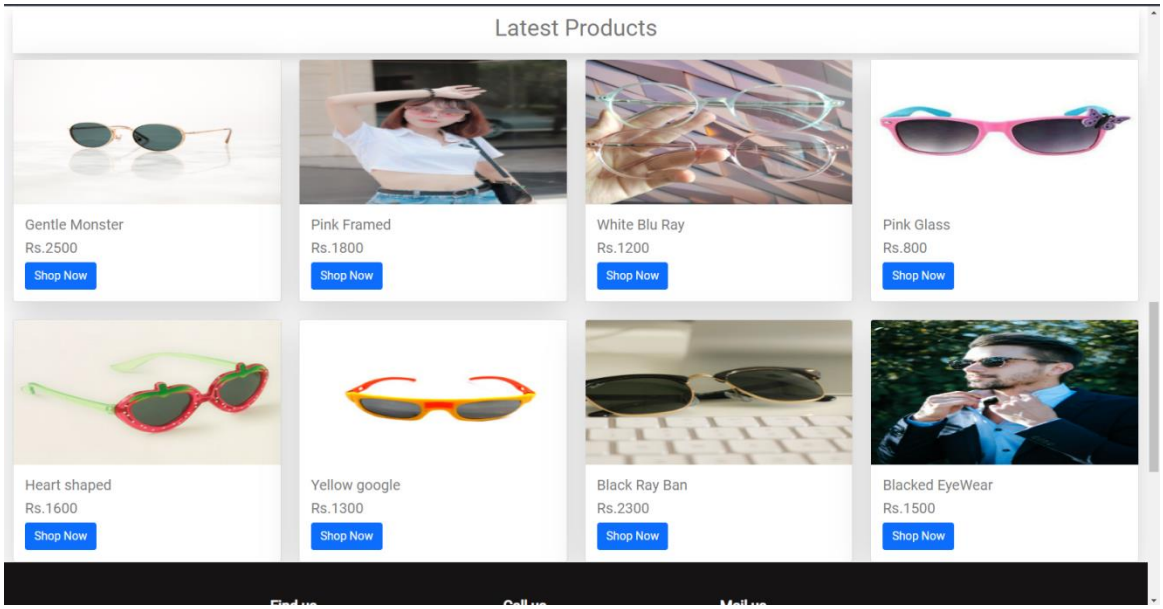
- About Us Page



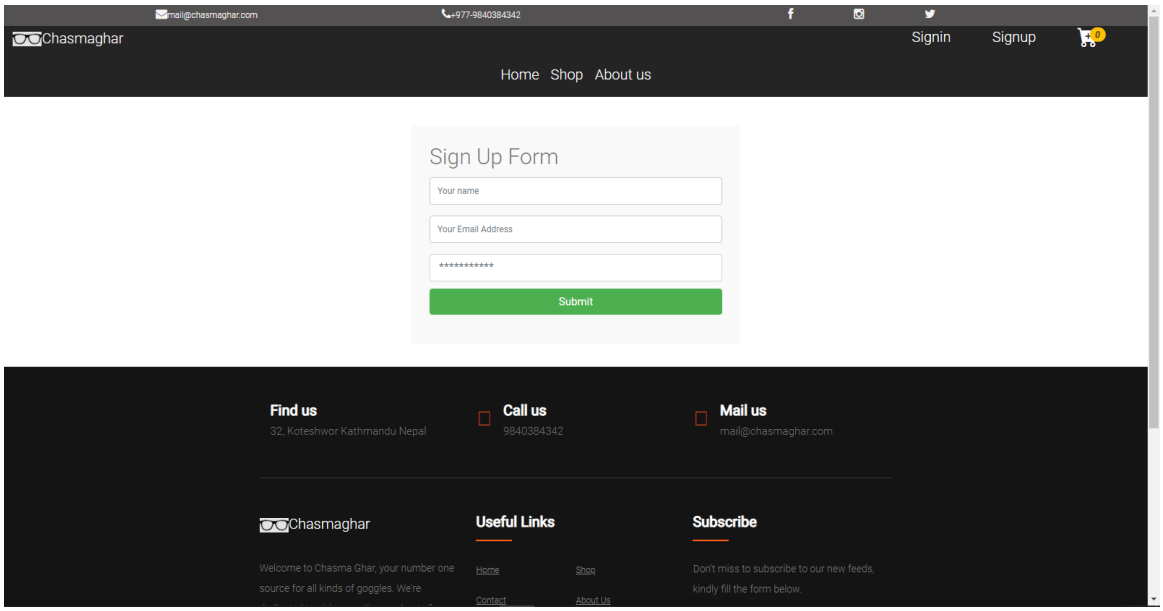
- Shop



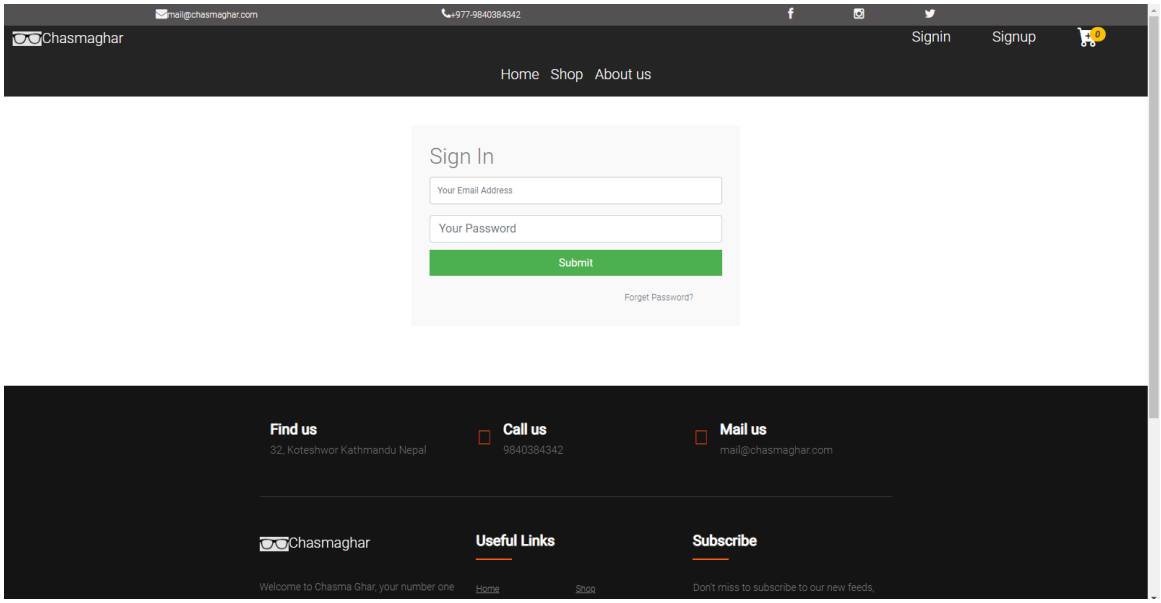
- Latest Products



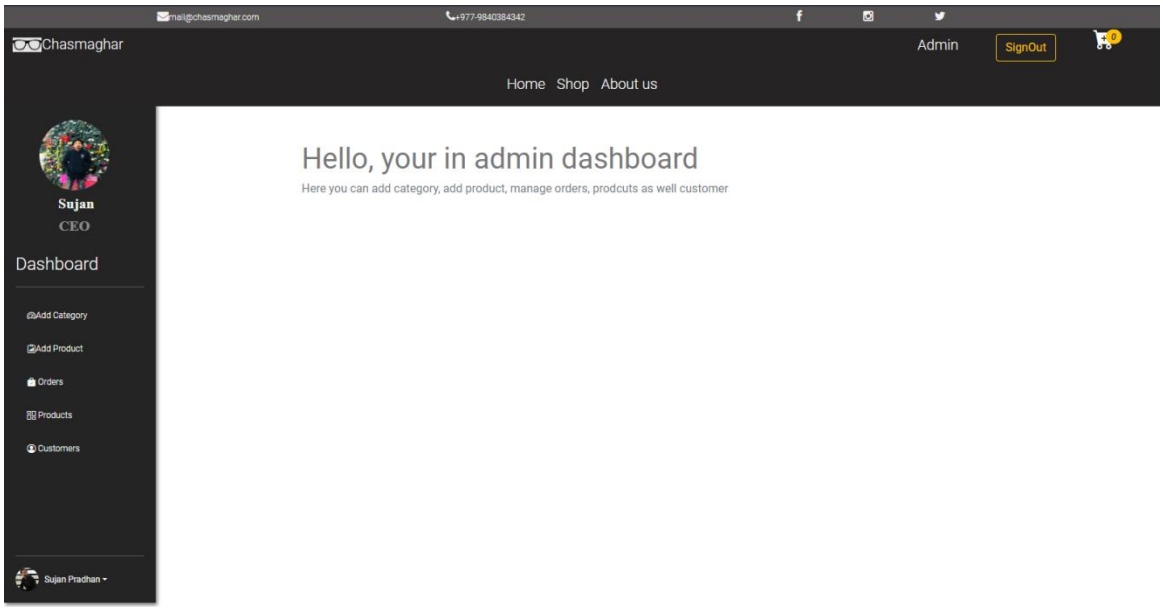
- SignUp



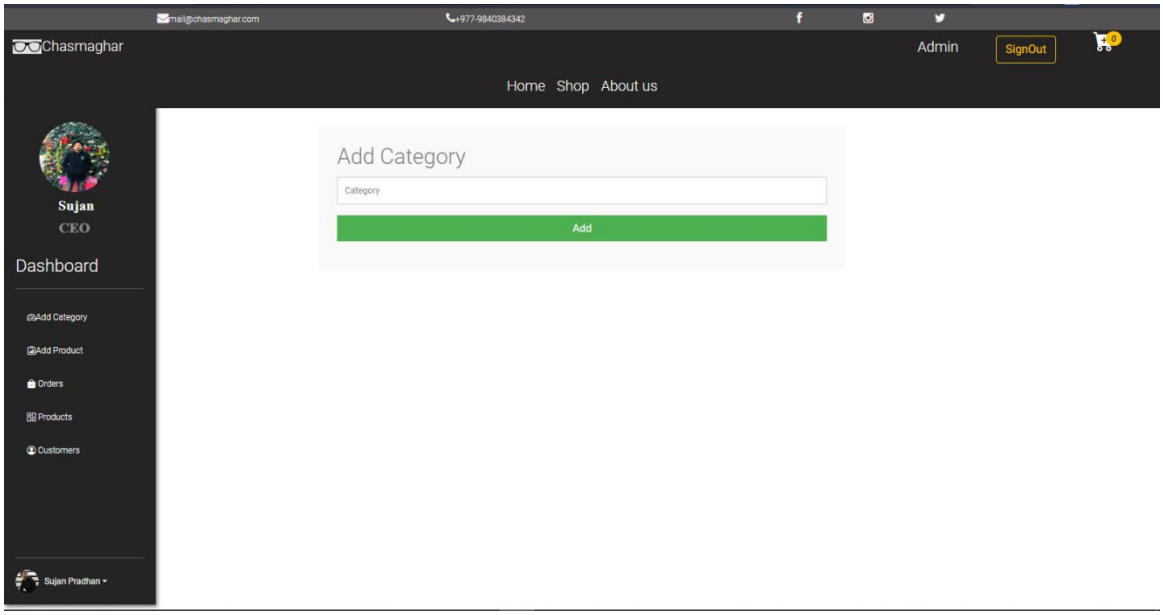
- SignIn



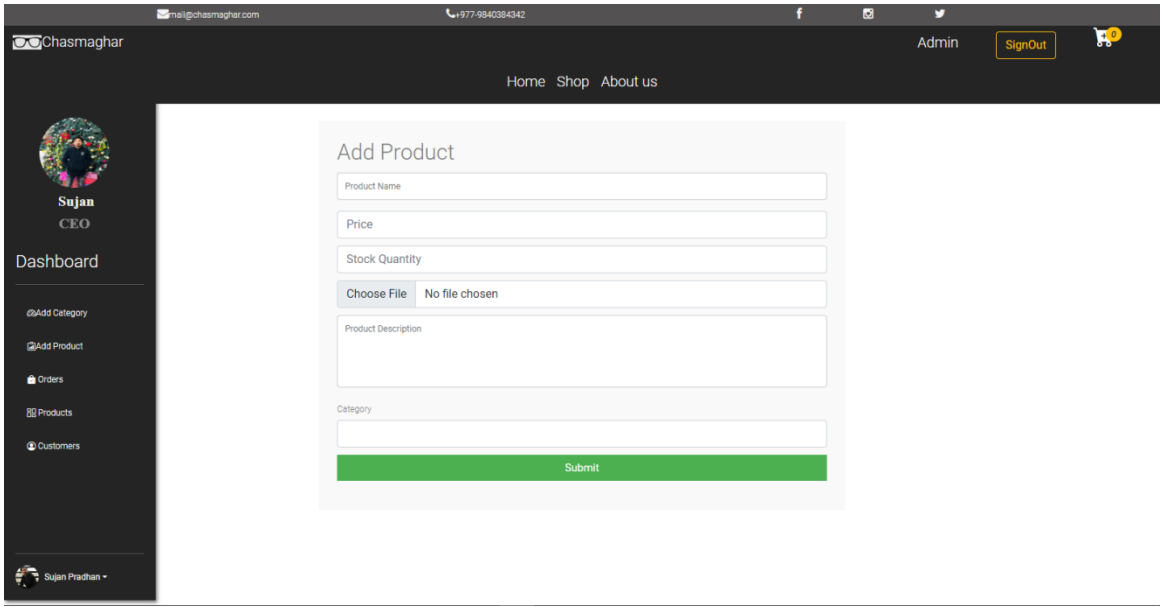
- Admin Dashboard



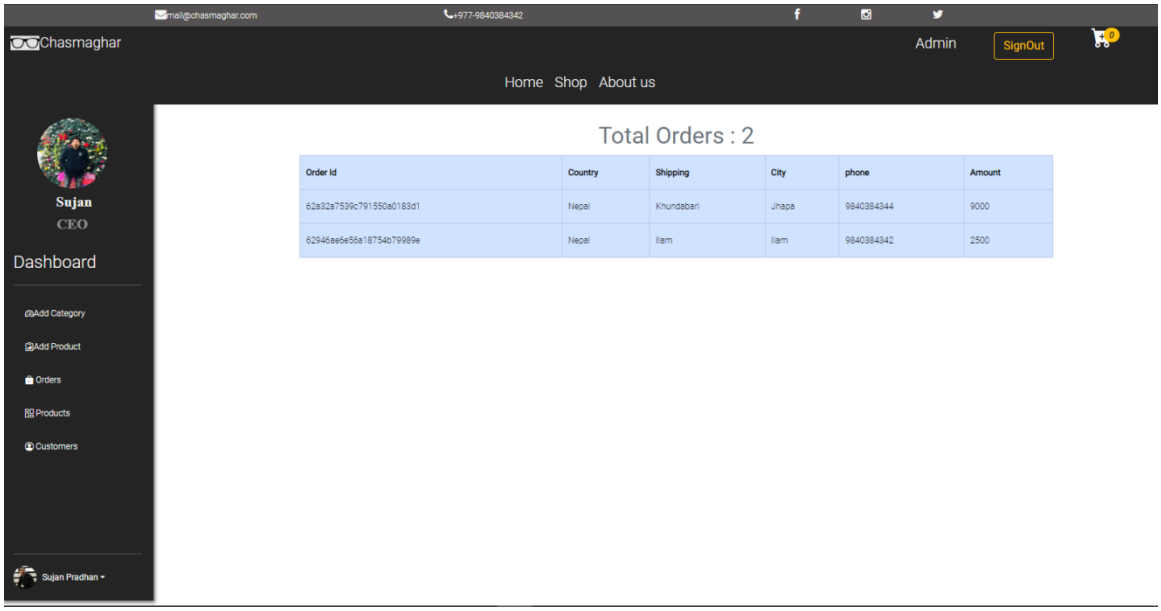
- Add Category



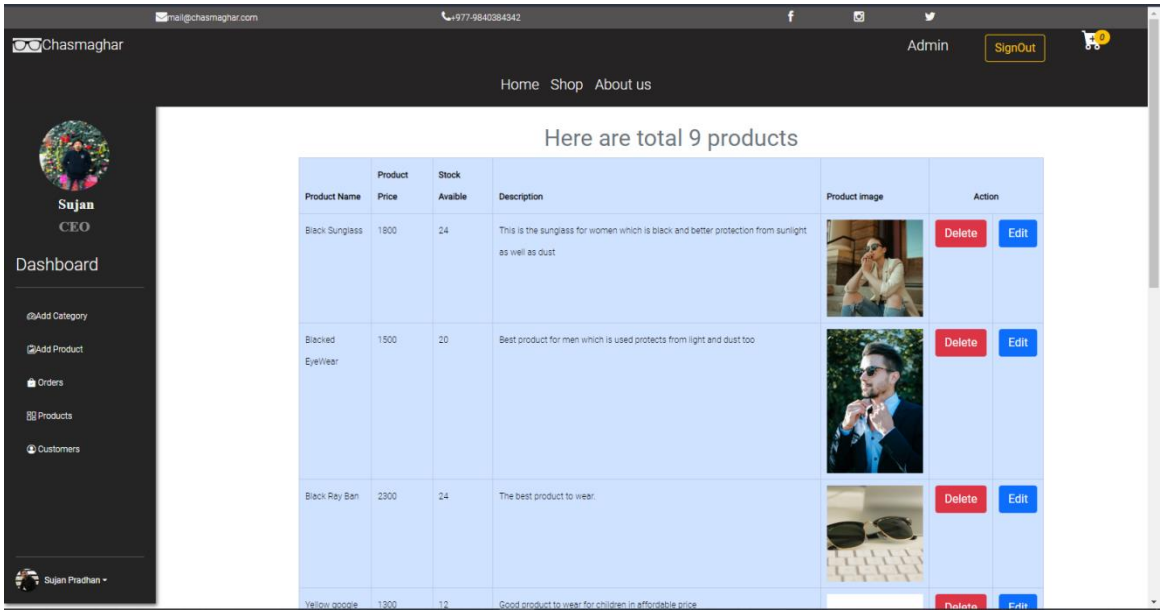
- Add Product



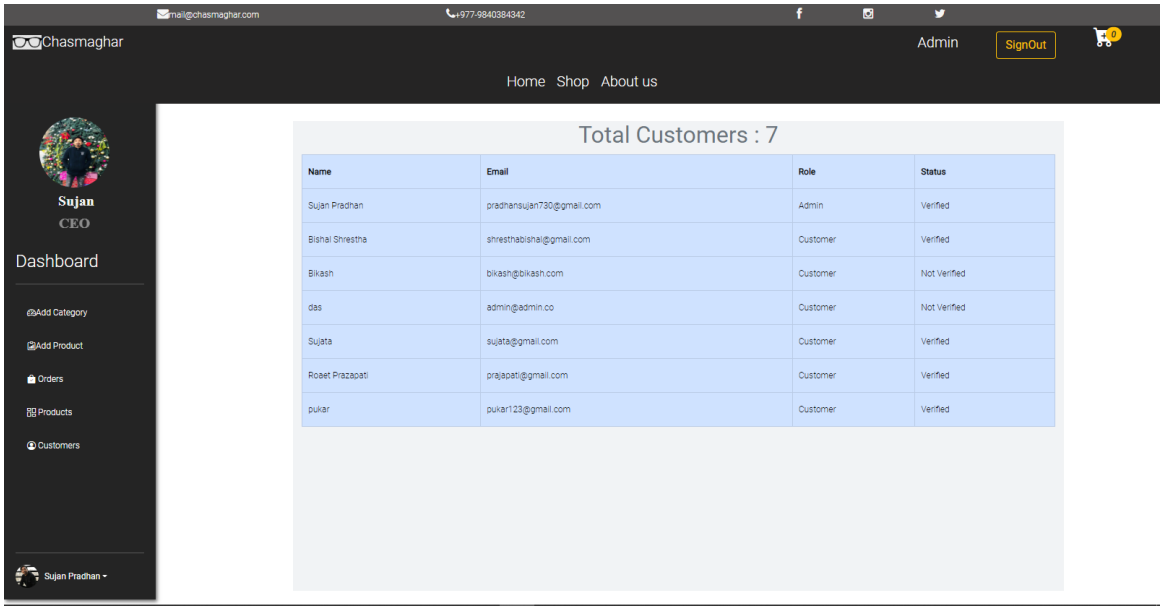
- View Orders



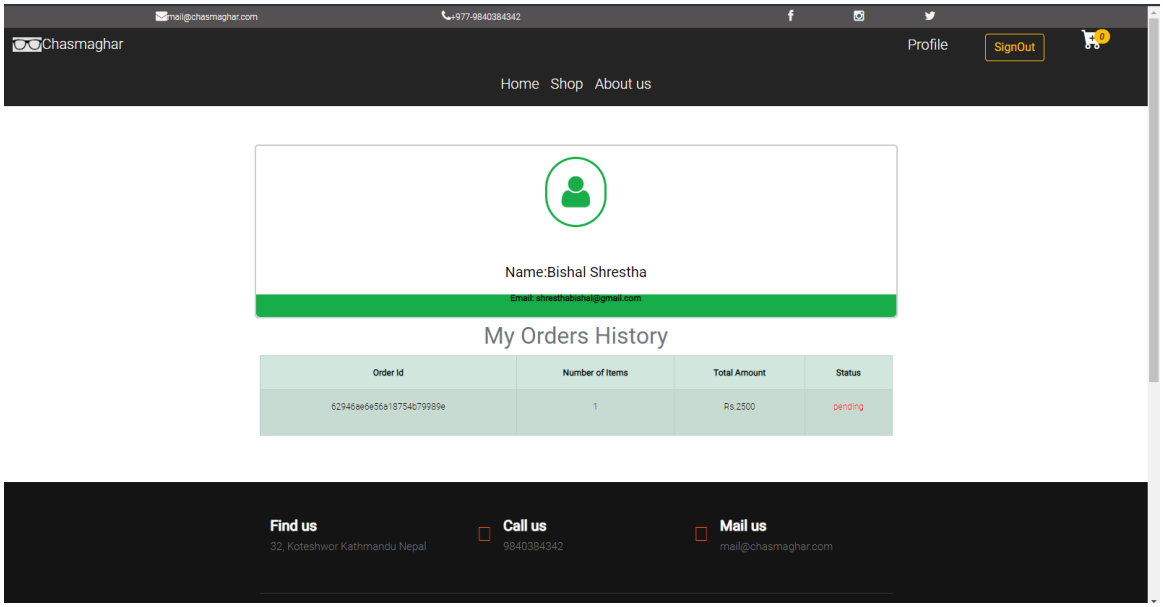
- View Products



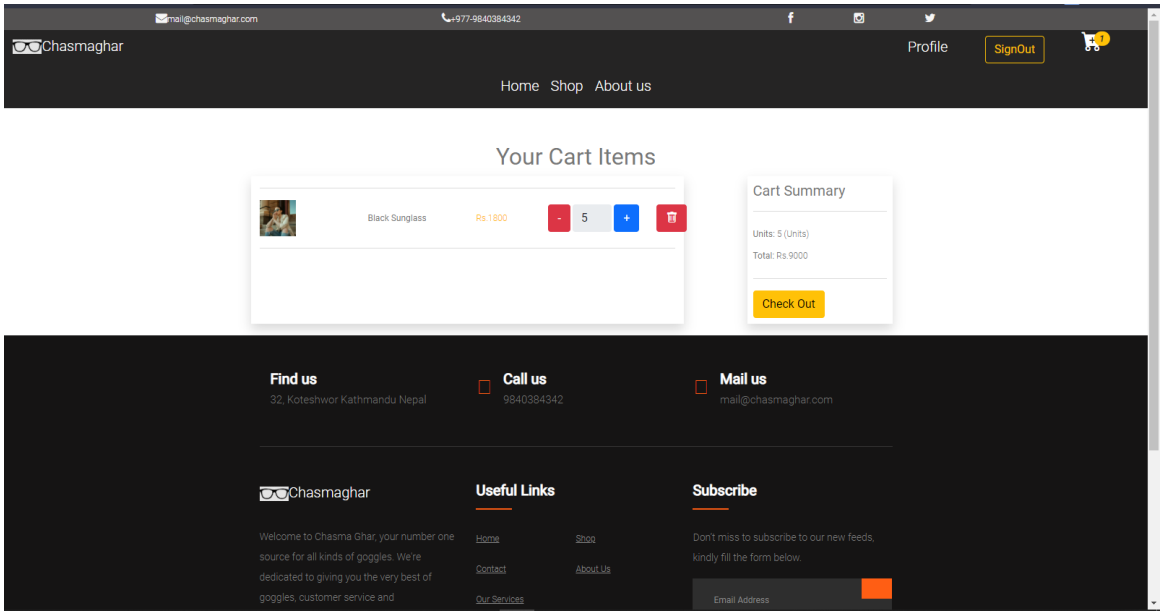
- View Customers



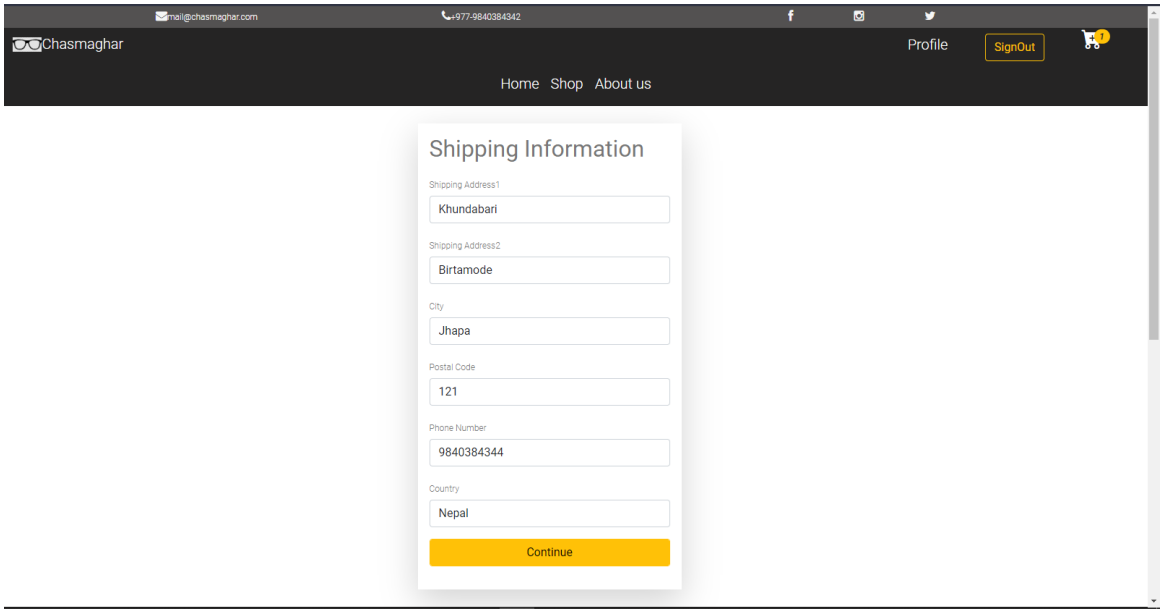
- Customer Dashboard



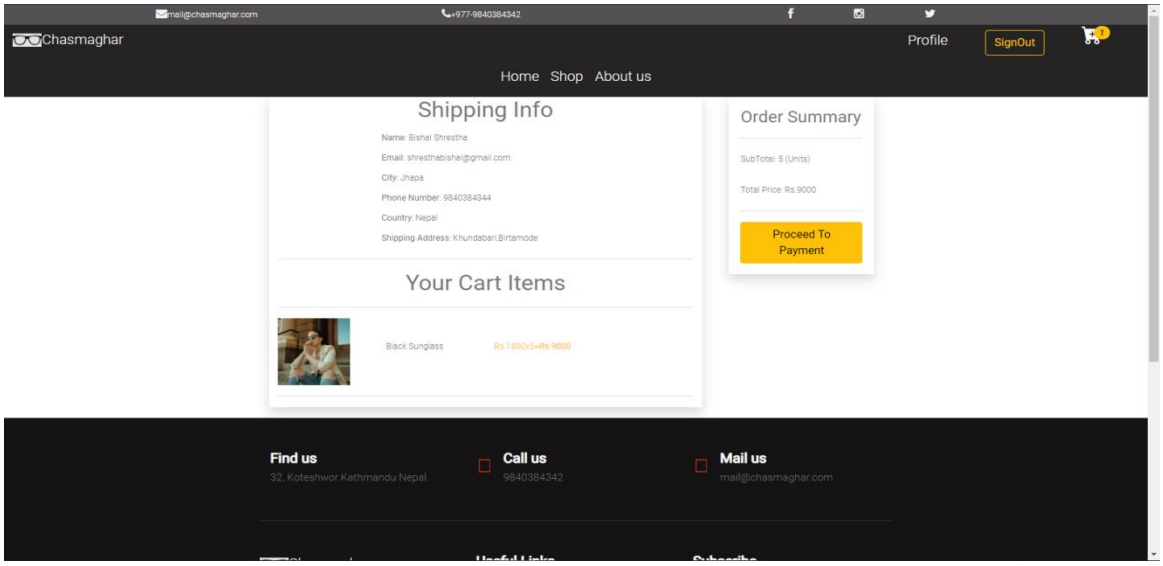
- Add to Cart



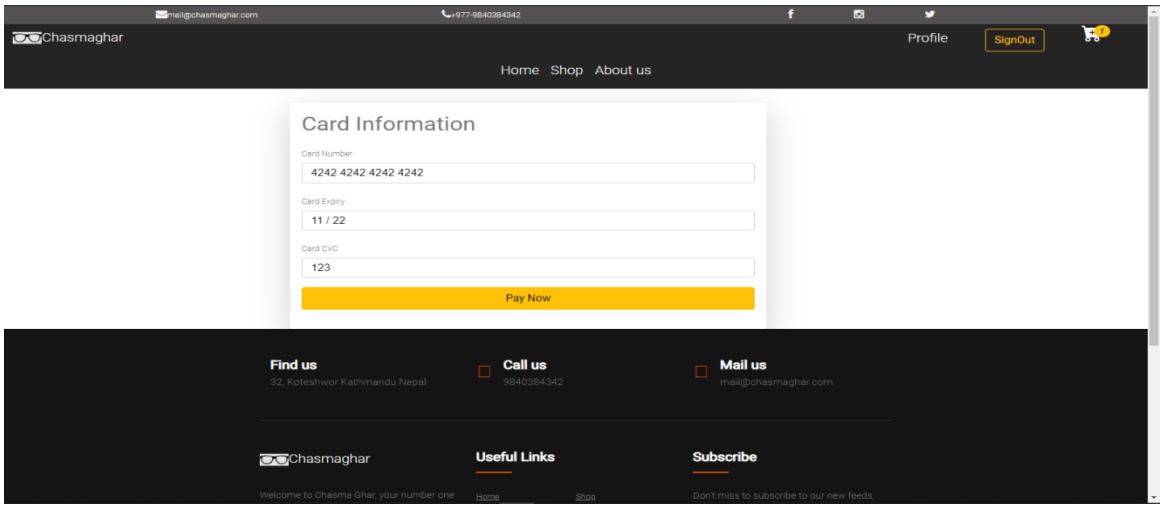
- Shipping Address Form



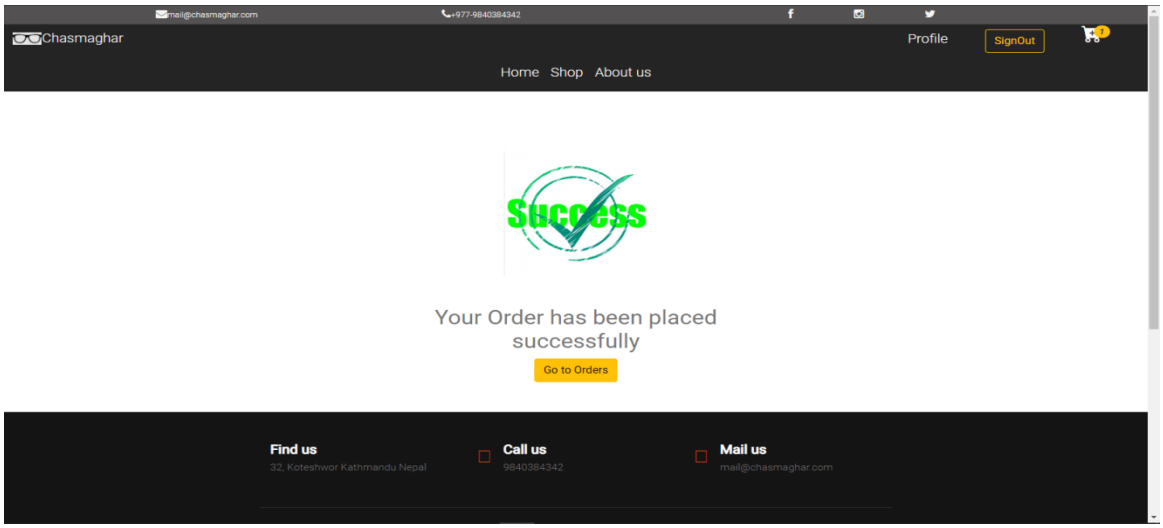
- Shipping Details



- Card payment



- Order Success



Triton Int'l College

Tinkune, Kathmandu

Bachelor in Computer Applications (BCA)

Project Log - Sheet

Year/Semester: 2022/6th
Project Name: ChasmaGhar
Supervisor's Name: Basanta Chapagain
Student's Name: Sujan Pradhan

SN	Date	Topic/Issue Discussed	Comments/Next Target	Signature of Supervisor
1.				
2.				
3.				
4.				
5.				

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