KATHMANDU UNIVERSITY

SCHOOL OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROJECT REPORT

'HamroStock'

A third year first semester project report submitted for partial fulfilment of the requirements for **COMP 308**.

By:

Ekta Chaudhary (11)

Aakriti Khadka (24)

Anurodh Yadav(60)

Sandip Dulal (63)

ABSTRACT

‘HamroStock’ is a website which provides users to plan their career goals. With this website, we aim to create a one stop solution site whose aptitude test features help to map the user’s ability. In spite of many online career guidance sites, we hardly find reliable sites which guide users based on their interest or aptitude. We intend to build a site which will help the users to choose their career based on their inherent potential and not solely based on their grades. To build this website, we will be using HTML, CSS JavaScript, jQuery and Ajax for front end development and PHP, MySQL for back end development. Our goal through this project is to provide users with adequate information to choose better career and contribute to the nation by producing capable youths.

Table of Contents

ACKNOWLEDGEMENT

We would like to express our deepest appreciation to all those who provided us the opportunity to complete this project. We would like to acknowledge with much appreciation the crucial role of our project supervisor, Deni Shahi for her programming knowledge and guidance which provided us with the ability to successfully complete our project. Special thanks to our every team mate, who helped each other to accomplish their specific task within a deadline. Eventually, again we would like to thank deeply to those beautiful hands and great minds that helped us in this project to complete within a deadline.

LIST OF ABBREVIATIONS

CSS	Cascading Style Sheet
UI	User Interface
PHP	Hypertext Preprocessor
HTML	Hyper Text Markup Language
AJAX	Asynchronous JavaScript and XML
ER	Entity Relationship

LIST OF FIGURES

Chapter 1 Introduction

1.1. Background

Stock often consists of movable assets, stock management systems are critical for keeping tabs on current stock levels and understanding what items move quickly and which items are more slow-moving, which in turn enables organizations to determine when it's time to reorder with greater accuracy.

There are many varieties of stock management website, each specializing in a particular type of content or use. Since there is less number of websites created for stock management in developing nations like Nepal, we decided to create stock management solution which helps to stay organized, avoid costly errors and track all inventory activity. Hamro stock is the website which simplifies and automates the order and inventory management processes, empowering businesses to grow.

1.2. Objectives

Our main objectives are:

- To quickly receive and store products as they come in and retrieve and ship when they go out.
- To provide access to products when customers need or want them.
- To ensure perpetual inventory control so that materials shown in stock ledgers should be actually lying in the stores.
- To ensure right quality goods at reasonable prices.

1.3. Motivation and Significance

1.3.1. Motivation

There are web applications like ‘SalesBinder’ and ‘Zoho’ that helps companies remain stocked with all of the essential goods they need to sell to customers and complete daily operations. When products are sold, they are not replenished at a rate that doesn’t lead to huge overstocks or frequent stock-outs.

However, these web applications have their own cons like there is not appropriate way for item management, creating sales order & order returns, creating purchase order & order returns and generating invoices & bills. Our project is one of the key ways to help manage storage and shipping solutions for the customers. It deals with those cons by providing system that can help to improve warehouse management by providing transparency and efficiency to a complex system. We have successfully build managing inventory which will be capable of hitting a moving target because supply and demand aren’t constant, but they often change with the season and over the course of a product’s life-cycle.

1.3.2. Significance

Our project offers the customized system to accommodate any business size. It will work with the needs and the budget of the customers. It is designed to meet the specifications of warehouse management needs.

Chapter 2 Related Works

During our case study, we encountered numerous projects similar to our concept. Some of them were prototype projects while some were large scale projects.

Zoho Inventory

Zoho Inventory is an online application that enables you to manage orders and inventory. With multi-channel selling, shipping integrations and powerful inventory control, you can now optimize your inventory and order management, right from purchase to packing, to payments

Drawbacks:

- Poor UI/UX design.
- Numerous bugs.
- Only provides options present out there and nothing else.

EZ Office Inventory

They are the leading asset tracking software which enables user to manage inventory and assets across your company. Track vendors, move inventory across locations, and customize low stock threshold alerts for optimized inventory management. Scan Barcodes, QR Codes and RFID tags to perform mass actions and use our mobile apps to manage operations on the go! Their procurement module allows quick inventory replenishment through POs which automatically update your product catalog

Drawbacks:

- Poor UI/UX design.

Chapter 3 Design and Implementation

3.1. System Requirement Specification

3.1.1. Software Specification

3.1.1.1. Front End Tools:

Designing and developing the website uses the following set of tools:

- Markup Language: HTML
- Operating System: Windows/Linux/Mac
- Style Sheet: CSS
- Programming Language: JavaScript , AJAX, jQuery
- Text Editor: Sublime Text 3

3.1.1.2. Back End Tools:

- Database: MySQL
- Programming language: PHP

3.1.2. Hardware Specification

Minimum configuration of system for the project to run smoothly is as follows:

RAM: 2 GB

Processor: Core 2 Duo or above

Storage: 3GB

3.2. Flowchart

The figure below shows the initial flow diagram of our project to explain the system design. There are possibilities that the design can be modified during the app development process.

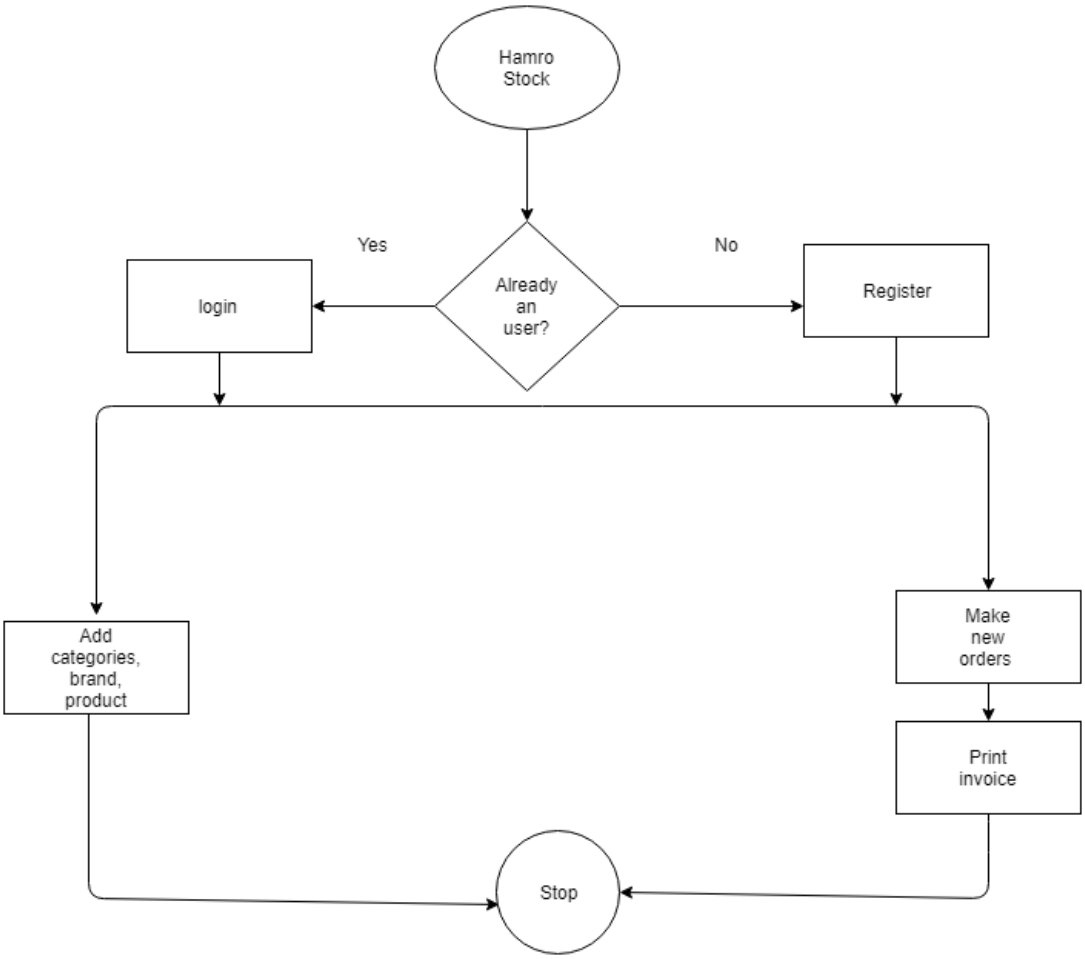


Figure 3.2.1 Flowchart

3.3. Use Case Diagram

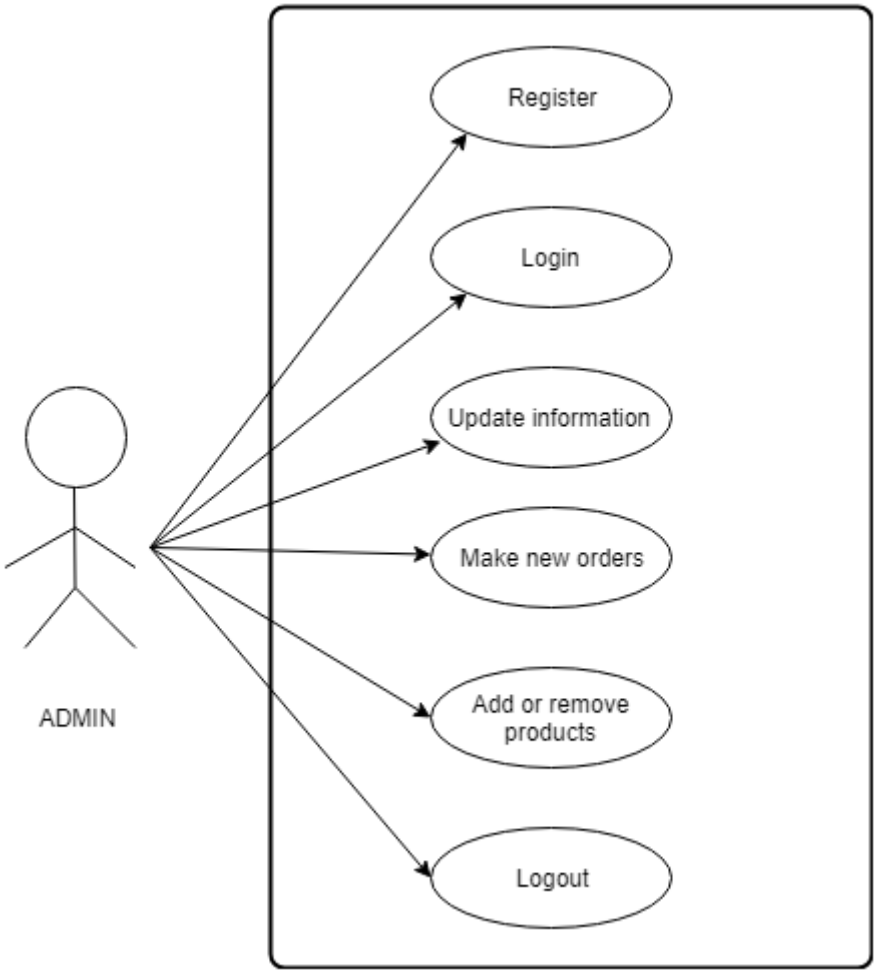


Figure 3.3.1 Use Case Diagram

3.4. ER Diagram

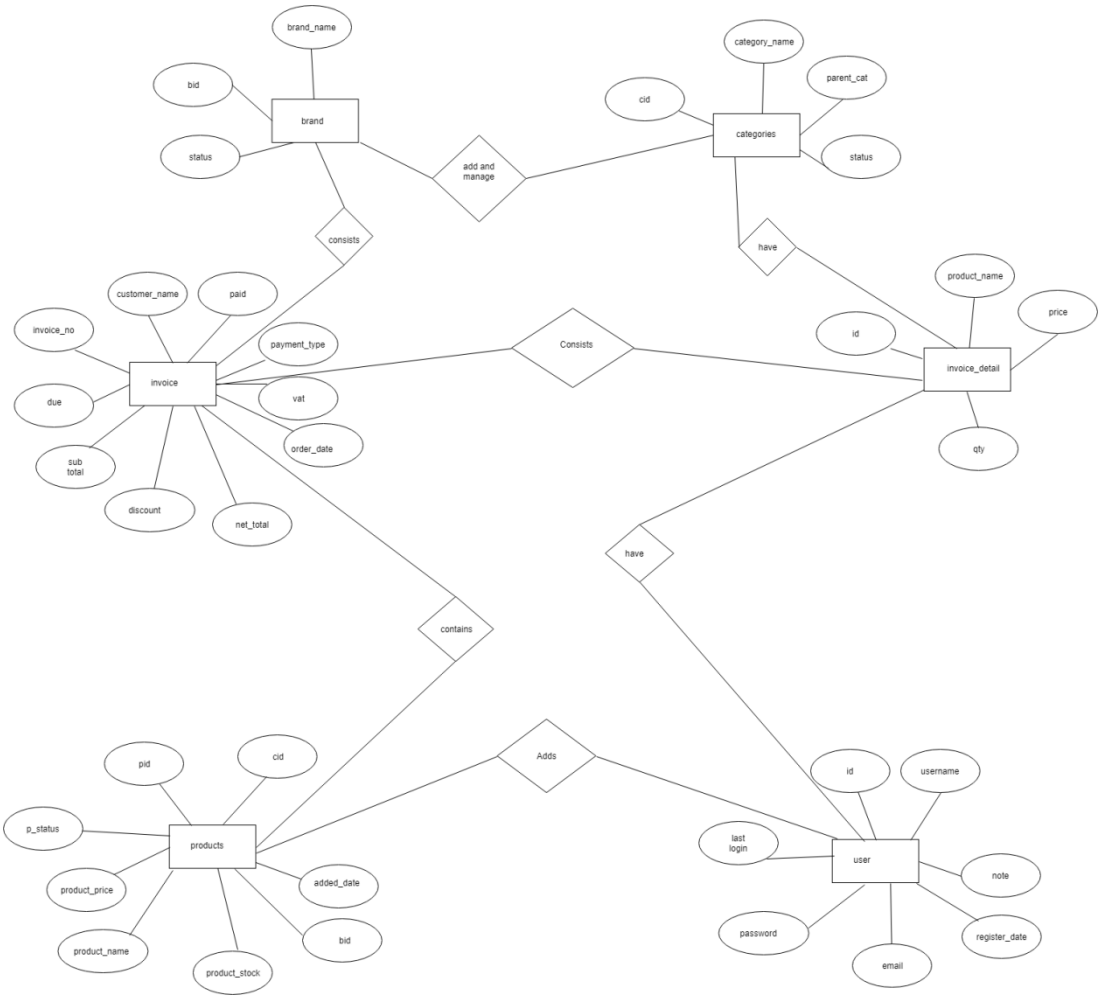


Figure 3.4.1 ER Diagram

3.5. System Diagram

The figure below is a visual model of our project containing the Admin section.

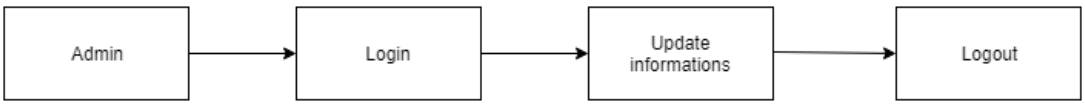


Figure 3.5.1 System Diagram

Chapter 4 Discussion on the achievements

Through all the challenges we faced, we have discovered and understood the problems we went through. Despite all the challenges, we solved all these problems and implemented creative solutions resulting in our website – Hamro Stock.

Features

- Provides User with easy access to available products.
- Responsive across multiple device platforms.
- Genuine product collection.
- Hamro Stock is secure against SQL injection.
- Provide user with necessary payment details including VAT charges, Discounts.

Chapter 5 Conclusion and Recommendation

Hamro Stock is a website developed in the time period of 10 weeks. This project aims to provide an online one stop solution site which provides information of products to the user. The project will solve all these shortcomings and revolutionize Online Stock Management System.

The task of designing and updating this website is an ever-going process. With regard to the limited time, this website is completed as far as possible. We hope this website will help users in upcoming days to add or remove the stocks of the products and get adequate information with ease.

This project had been challenging in many ways. Each stage presented its own problems to overcome. With the experience of developing a website like this, we recommend following actions:

- A more detailed study can be done for improving the database.
- Similar websites can be used to provide adequate information in other fields.

5.1. Future Enhancements

- Implementation of visualization Graph to clearly show the stock of product.
- Better UI/UX Design
- Online Payment
- Implementation of barcode reader system

APPENDIX

REFERENCES

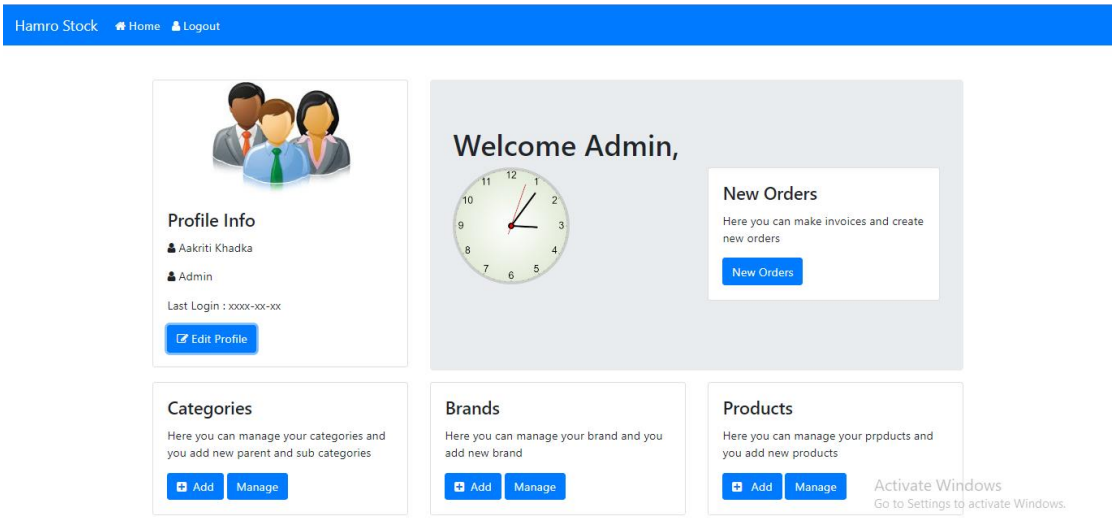
1. Zoho Inventory (2018). Inventory Management software. [online] Available at: https://zoho.com/ [Accessed 15 Oct. 2018].

2. Sales Binder (2018). Online Inventory Management Software System [online] Available at: http://www.salesbinder.com/ [Accessed 16 Oct. 2018].

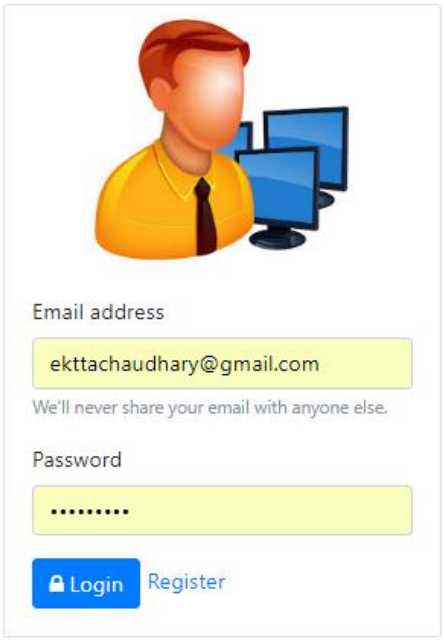
3. Canvus (2018). Online Inventory Management with stockpile from canvus application. [online] Available at: http://www.thecanvus.com/ [Accessed 16 Oct. 2018].

4. Dear Systems (2018). Simple and Powerful Inventory and Accounting Software. [online] Available at: http://www.dearsystems.com/ [Accessed 17 Oct. 2018].

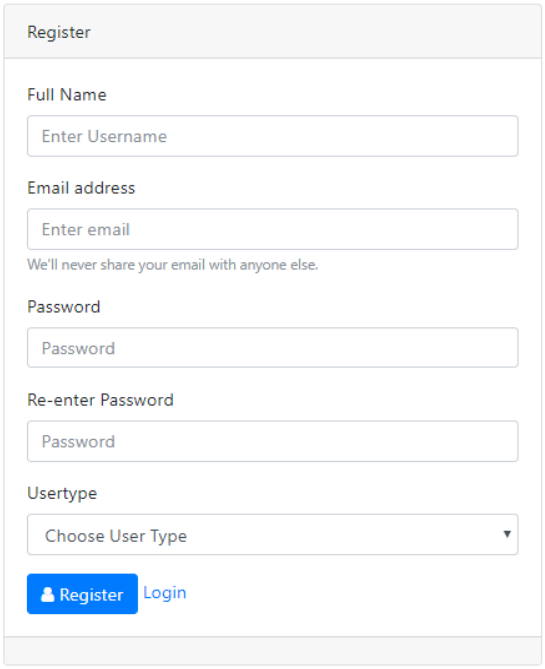
Appendix I: Screenshots



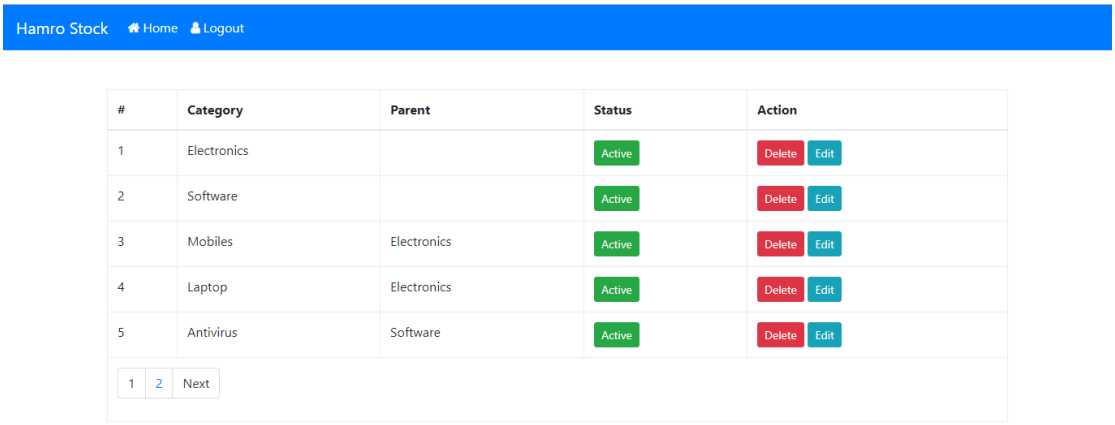
Home page



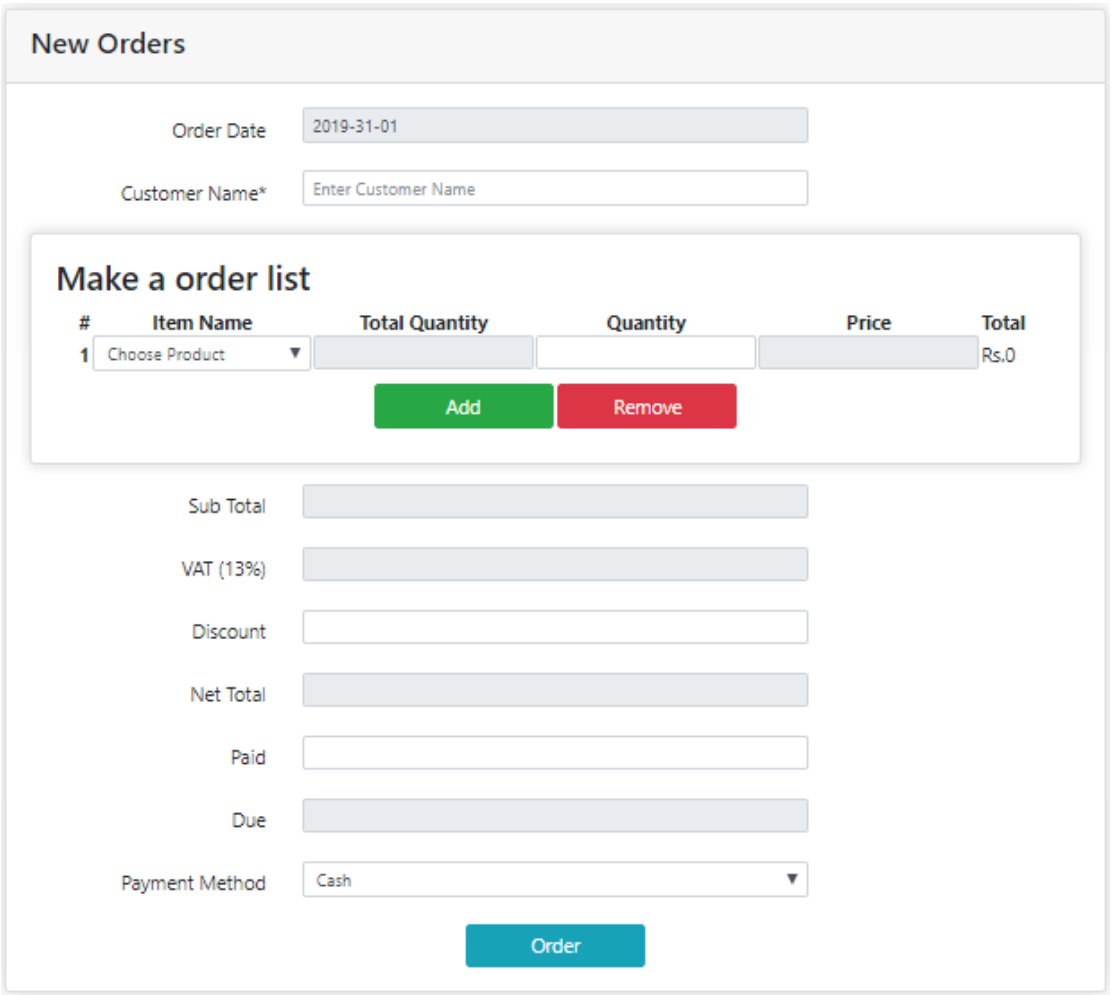
Login



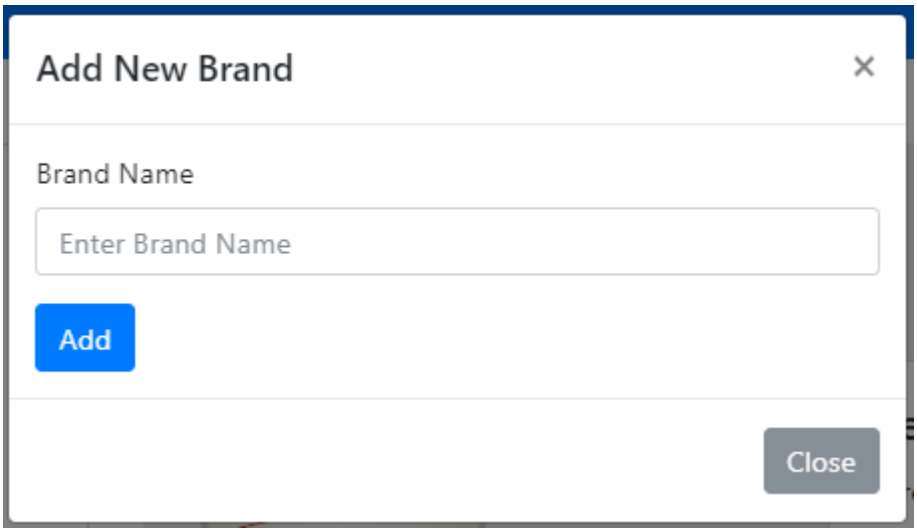
Register



Add/Remove Products



Make new orders



Add new brands

Appendix II: Work Division

Most of the work will be done in group. Everyone will be involved in some ways. The entire work is broken down into the following ways among our team mates.

S. N	**Task**	**Team Members**
1	Basic Learning	Ekta,Aakriti,Anurodh,Sandip
2	UI Designing	Ekta,Aakriti,Anurodh,Sandip
3	Coding and Testing	Ekta,Aakriti,Anurodh,Sandip
4	Documentation	Ekta,Aakriti,Anurodh,Sandip
5	Presentation Preparation	Ekta,Aakriti,Anurodh,Sandip

Appendix III: Gantt chart

WORK / WEEK	1	2	3	4	5	6	7	8	9	10
Basic learning	■	■								
Platform and graphics designing			■	■			■			
Fundamental Coding			■	■	■	■				
Debugging and Testing						■	■			
Documentation								■	■	
Presentation preparation										■