E-Commerce Grocery Store

A PROJECT SUBMITTED TO

Atmiya University

Department of Computer Science & Information Technology

RAJKOT

Submitted in partial fulfillment of the requirements for the degree of

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1. ABSTRACT

The Online Gambo Shopping is a web based application intended for online Vegetables ,Fruits and Grocery shopping.

The main objective of this application is to make it interactive and its ease of use. It would make searching, viewing and selection of a product easier.

The user can view the complete specification of each product. Easy contact of Seller for any Query .

The application also provides shopping cart and Adding to It's Wishlist.

The main emphasis lies in providing a userfriendly design for Quick search also Quick pay using Gambo Wallet Balance.

Integration of PayU Portal for Online Payment and also offering Cash on Delivery Option for users. Main Feature is of cancellation of Order within 30 mins of user's purchase (with timer).

2. ABOUT PROJECT

Project Duration : 6 Months

Back End Language: JSP(Java Server Pages)

Project Coordinators : Dr. Jasmin Parmar
Dr. Ripal Ranpara

Submitted To : Atmiya University,
Department of C.S & I.T,
Rajkot.

3. ACKNOWLEDGEMENT

I would like to express my special thanks of gratitude to **Dr. Jignesh Hirpara** for his constant guidance and help throughout the project and for all the support, attention, and dedication to guide me in the course of writing this project.

I would also like to thank my coordinators for all the support, attention, and dedication to guide me in the course of writing this project.

Finally, I would like to appreciate my family and Colleagues for all the support and encouragement and giving me innovative ideas.

4. INTRODUCTION

4.1 Goal

- Shopping has long been considered a recreational activity by many. Shopping online is no exception. The goal of this application is to develop a web based interface for online Shopping for Users.
- The system would be easy to use and hence make the shopping experience pleasant for the users. The goal of this application is To develop an easy to use web based interface where users can search for products, view a complete description of the products and order the products.
- An AJAX enabled website with the latest AJAX controls giving attractive and interactive look to the web pages and prevents the annoying post back (**Example while we add Product to wish list or We Edit Quantity in Our Cart**).

4.2 Need of Application

There are large numbers of commercial Online Shopping websites offering large number of products tailored to meet the shopping interests of large number of customers. These online marketplaces have thousands of products listed under various categories.

Problem:

- The basic problems with the existing systems are the non-interactive environment they provide to the users.
- The use of traditional user interfaces which make continuous post backs to the server; each post back makes a call to the server, gets the response and then refreshes the entire web form to display the result. This scenario adds an extra trade off causing a delay in displaying the results.
- Liking a product and can't save it or add it to wish list makes it a tedious task to search the product all over again and asks for hectic job from the customer making them loose interest in surfing the product and buying it.
- Saving Wallet Balance alike Paytm Offers it users for fast, rapid and convenient transaction is also a need web applications.
- Let User Cancel it order within few minutes of its purchase feature is must for customers. So user may revise its order and cancel it if he/she wants to cause returning the product to the Company and refunding the amount back is a tedious task.
- Allowing customers to create its account and store balance, order history, wish list is a must for the application to make attract and view details on few clicks of login its account

- User Verification if forgot pass word using OTP is one of the most secure way to let user login to its account again by changing the password.

Solution:

- Making the application AJAX enabled get rid of these unnecessary delays letting the user to perform exhaustive search. The users of this application can easily feel the difference between the Ajax empowered user interfaces vs. traditional user interfaces.
- Provide Interactive interface through which user can interact with different areas of application easily.
- Adding Products to wish list Allows users to get to it any point of the time and save some of his/her favourite products in the wish list allows them to not surf for the product all over again.
- Using wallet Balance ensure easy and fast ordering the products. Also getting some balance Money at the time of registration and big purchases makes the customer more interact with the application and have frequent orders.
- Cancellation of the order within 30 minutes of your purchase is a best feature in view of the customers. A wrong order might save them from buying the products by cancelling the order and save waiting a lot for returning products back to the company and get the refund of it.
- Saving all your data(orders placed, orders cancelled, wallet balance, client wish list) and let the User fetch them on its finger tips.
- Providing OTP on your mail for verification at the time of login if password is forgotten by the user and at the time of registration to make the web application secure. It allows users to trust your web application and build user company Bond.

4.3 Scope

- The current system can be extended to allow the user to play with the search tool and create different combinatorial search criterion to perform exhaustive search.
- Making the Application fully AJAX enabled to not tire the customers with post backs.
- User can Use Coupons and offer cards at the time of payment helping them to reduce their purchase payment.
- User could subscribe for price alerts which would enable them to receive messages when price for products fall below a particular level.

5. SYSTEM REQUIREMENT ANALYSIS

5.1 Information Technology

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 behaviours of various users. The working of the application is made convenient and easy to use for the end user.

Users can be classified into two types based on their knowledge of the products that suit their needs. They can be classified as users who know about the product that would satisfy their needs and users who have to figure out the product that would satisfy their needs. Users who know about the product should be able to find the product easily with the click of a button. But users who don't know can see the new launched products and top featured products and Also it allows the user to categorize the products on the basis of the category the belong to. It easies their work to surf the product.

The users should be able to view the complete specification of the product and various images.

To increase the ease of use the user should be able to add a product to the shopping cart and wish list on single click. A user should able to edit the contents of a shopping cart. They should be able to update the quantities of the products added to the cart and remove the products from the cart and wish list. The user should be able to remove the product from the shopping cart.

User should able to save its order history and cancel the order in 30 minutes of the purchased time. Can use PayU portal for online payment and cash on delivery is available. Wallet balance can be used to pay the order bill. And bill is generated after the order is made and user is asked to download the copy of the bill

The application can be made interactive by pop up messages when a product has been dropped in to the shopping cart or out of the shopping cart.

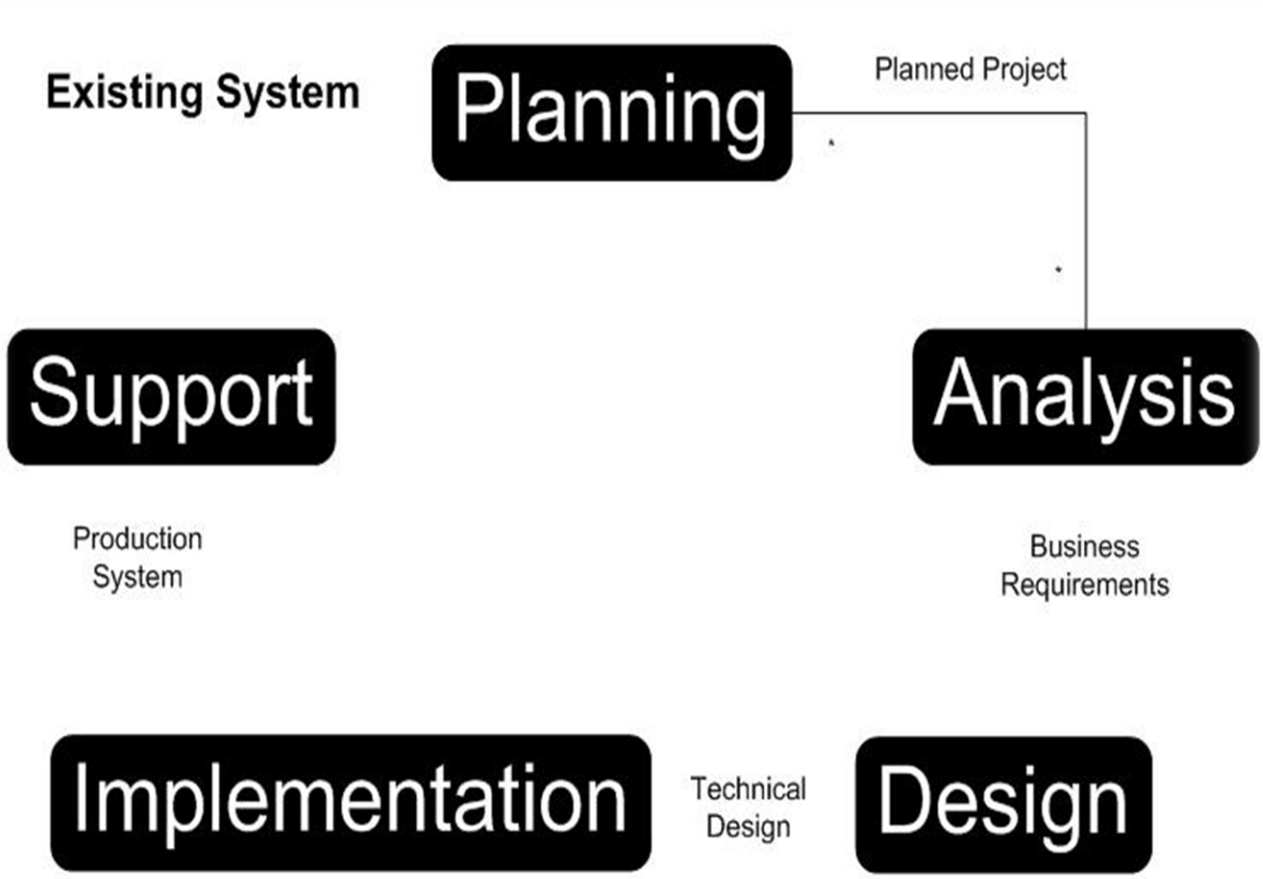
Other than this, I did a lot of research on various other methods of building this application which and was able to incorporate a few stronger features into the application. The tools and controls used in the application are recommended ASP.NET controls and AJAX Toolkit controls which improves the navigation and usability and interactivity.

5.2 System Feasibility

The system feasibility can be divided into the following sections:

Requirement of new System:

- System will be web based so can be accessed from anywhere throw internet.
- System will provide authorized and restricted access to user according user privilege.
- System will log all event raised in system.



5.2.1 Economic Feasibility

The project is economically feasible as the only cost involved is having a computer with the minimum requirements mentioned earlier. For the users to access the application, the only cost involved will be in getting access to the Internet.

5.2.2 Technical Feasibility

✓ Our technical feasibility parameters involved:

- Do we have the right technical inputs of this project?
- Do we have right technical skills to take up this project?
- Do we have right tools to take up this project?
- Is there any training required/technical mentoring?

- Do we have the right understanding of the concept and deliverable that the customer desires to have?
- Did we analyze the right way to do this project?

✓ Based on this score we check the technical feasibility of the project.

✓ So, Technical Feasibility is carried out to determine whether the company has the capability, in terms of software, hardware Personal and expertise, to handle the compilation of the Project.

✓ Out tool is website so there is no special hardware or software requirement to use but best view in Browsers

- Mozilla Firefox 4.0 or more

-Internet Explorer 7.0 or more.

✓ The System is well equipped with all latest installed software.

✓ Therefore as of the technical feasibility is concerned there won't be any problems or any technical errors. The new system is so proposed that will consume least of system resources.

To deploy the application, the only technical aspects needed are mentioned below:

For Users: Internet Browser
Internet Connection

5.2.3 Behavioral Feasibility

The application requires no special technical guidance and all the views available in the application are self explanatory. The users are well guided with warning and failure messages for all the actions taken.

6. TECHNOLOGY AND LITERATURE REVIEW

6.1 Front – End

6.1.1 Html

HTML is the language for describing the structure of web pages.HTML gives authors the means to:

publish online documents with headings, text, tables, lists ,photos, etc.
Retrieve information via hypertext links, at the click of button.
Design forms for conducting transactions with remote sevices , for use in searching information ,making reservations ,ordering products , etc.
Include spread sheets, video clip, sound clips in their documents.
Authors describe the structure of pages using markup .The elements of the language label pieces of content such as “paragraph”, ”list”, ”table” and so on.

6.1.2 CSS

Cascading Style Sheet(CSS) is a style sheet language used for describing the presentation semantics(looks and formatting) of a document written in a mark up language. It’s most common application is to style web pages written in HTML and XHTML.

CSS is designed to enable the separation of document content from document presentation , including elements such as layouts, colours and fonts. This separation can improve content accessibility ,provides flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting and reduce complexity and repetition in the structural content. It can also allow the same markup page to be presented in different styles , in different rendering methods such as on screen in print ,by voice etc. While the author of a document links that document to CSS style sheet , readers can use a different style sheet, perhaps one on their own computer, to override the one the author has specified.

CSS specifies a priority scheme to determine which style rules apply if more than one rule matches against a particular element. In this cascade priorities or weights are calculated and assigned to rules, so that ,the results are predictable. The CSS specifications are maintained by the World Wide Consortium(W3C).

6.1.3 Ajax

AJAX tutorial covers concepts and examples of AJAX technology for beginners and professionals.

AJAX is an acronym for **Asynchronous JavaScript and XML** It is a group of inter-related technologies like JavaScript, DOM, XML, HTML/XHTML, CSS, XMLHttpRequest etc.

AJAX allows you to send and receive data asynchronously without reloading the web page. So it is fast.

AJAX allows you to send only important information to the server not the entire page. So only valuable data from the client side is routed to the server side. It makes your application interactive and faster.

6.1.4 Bootstrap

Bootstrap is the most popular HTML, CSS and JavaScript framework for developing a responsive and mobile friendly website.

It is absolutely free to download and use.

It is a front-end framework used for easier and faster web development.

It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many others.

It can also use JavaScript plug-ins.

It facilitates you to create responsive designs.

6.1.5 JavaScript

JavaScript is the Programming Language for the Web. JavaScript can update and change both HTML and CSS. JavaScript can calculate, manipulate and validate data.

It is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

6.2 Back – End

6.2.1 JSP (Java Server Pages)

JSP technology is used to create web application just like Servlet technology. It can be thought of as an extension to Servlet because it provides more functionality than servlet such as expression language, JSTL, etc.
A JSP page consists of HTML tags and JSP tags. The JSP pages are easier to maintain than Servlet because we can separate designing and development. It provides some additional features such as Expression Language, Custom Tags, etc.

Java Server Pages (JSP) is a programming tool on the application server side that supports platform-independent and dynamic methods to construct Web-based applications.

Much as Servlet technology does, the JSP method provides a web application. It can be considered an expansion of Servlet because it offers more features than servlet. Since we can differentiate design and development, the JSP pages are simpler to manage than Servlet. HTML tags and JSP tags are present in Java Server Pages.

To access enterprise servers, Java Server Pages has an approach to the entire community of Java APIs, including the JDBC API. This tutorial will walk you to the path of building your own web application in convenient and simple steps using Java Server Pages.

The JSP Standard Tag Library (JSTL) represents a set of tags to simplify the JSP development.

The Lifecycle of JSP:

The JSP pages follow these phases:

- Translation of JSP Page
- Compilation of JSP Page
- Classloading (the classloader loads class file)
- Instantiation (Object of the Generated Servlet is created).
- Initialization (the container invokes jspInit() method).
- Request processing (the container invokes _jspService() method).
- Destroy (the container invokes jspDestroy() method).

6.2.2 MySQL

MySQL is an open-source relational database management system (RDBMS) based on Structured Query Language (SQL). It is one part of the very popular LAMP platform consisting of Linux, Apache, My SQL, and PHP. Currently My SQL is owned by Oracle. My SQL database is available on most important OS platforms. It runs on BSD Unix, Linux, Windows, or Mac OS. Wikipedia and YouTube use My SQL. These sites manage millions of queries each day. My SQL comes in two versions: My SQL server system and My SQL embedded system.

Feature of MySQL:

-Fully multi-threaded using kernel threads. That means it can use multiple CPU if available.

-Work on a lot of different platforms.

-SQL functions are implemented through a class library and should be fast as they can get! Usually there should not be any memory allocation at all after the query initialization.

RDBMS TERMINOLOGY

Before we proceed to explain MySQL database system, let's revise few definitions related to database.

Database: A database is a collection of tables, with related data.

Table: A table is a matrix with data. A table in a database looks like a simple spreadsheet.

Column: One column (data element) contains data of one and the same kind, for example the columnpostcode.

Row: A row (= tupelo, entry or record) is a group of related data, for example the data of one subscription.

Redundancy: Storing data twice, redundantly to make the system faster.

Primary Key: A primary key is unique. A key value cannot occur twice in one table. With a key, youcan find at most one row.

Foreign Key: A foreign key is the linking pin between two tables.

Compound Key: A compound key (composite key) is a key that consists of multiple columns becauseone column is not sufficiently unique.

Index: An index in a database resembles an index at the back of a book.

Referential Integrity: Referential Integrity makes sure that a foreign key value always points to anexisting ro.

7. REQUIREMENT SPECIFICATION

7.1 Hardware Requirements

- IntelCore i3 Processor (minimum)
- 2.1GHz
- 16 GB Internal Storage
- 1 GB RAM

7.2 Software Requirements

- Windows System
- Apache MySQL server.
- Mozilla Firefox browser / Google Chrome Browser
- Tomcat Server / Glass Fish Server
- IDE – Net Beans

8. PROJECT MANAGEMENT

8.1 Project Development Approach

To solve actual problems in an industry setting, a software development strategy must be incorporated that encompasses the process, methods and tools for software engineering. This strategy is often referred to as software process model and software engineering paradigm. A software process model for software engineering is chosen based on the nature of project and application, the methods and tool to be used and the controls and deliverables that are required.
For the development and implementation of web based module several distinct approach are in practice. Among them, a very popular one is the classical system development life cycle model or the waterfall model. The waterfall model has following phase of its development:

8.2 System Information Engineering and Modeling

As software is always of a large system (or business), work begins by establishing requirements for all system elements and then allocating some subset of these requirements to software. This system view is essential when software must interface with other elements such as hardware, people and other resources. System is the basic and very critical requirement for the existence of software in any entity. So if the system is not in place, the system should be engineering and put in place. In some cases to extract the maximum output, system should be re-engineered and spices up.

In this approach we have gather the required data which could be helpful to us to develop new system. In the next phase of this model we have studied about its feasibleness. Weather the development is feasible by operational, technical and economical?

8.3 System Analysis

In the next phase whole system has been analyzed and topics are covered in this phase like – system requirement specification, class diagram, sequence diagram, component diagram, future of new system etc.

8.4 System Design

Next phase is system design- in this phase database design will take place then after immediately followed by GUI forms design. This will provide interactive interface with user.

After system design the next phase is system implementation. In this phase system will integrate with all modules and also implement as multiuser and single user environment.

8.5 Project Plan

In the development of this project, we will first check to see if our project is feasible functionally, technically and economically. Then we collect the requirements from the end users and analyse it. We also analyse similar systems to get an exact idea of how to create this system. Hence, we gather all the requirements which we need to develop our system. Then, after thoroughly understanding the need of end user, we will develop the Graphical User Interface (GUI).

8.6 Coding Generation

The GUI is viewed by the user and the user communicates with the system and hence, it should be appealing an attractive. After this comes the coding part, which involves handling databases and manages queries and forms etc. There are certain coding standards to be followed so that the flow of program is easily understood.

8.7 Testing And Maintenance

Testing will ensure that our system will work efficiently using all valid values and does not give errors. To test the system we have to perform unit testing, module testing and the finally the system testing.
Maintain system up to date with the changes in the organization and ensuring it meets the goals of the organization by implementing changes to the system when necessary.

9. RISK MANAGEMENT

There are three types of risks that are associated with the software development process they are as follows:-

- Risk as per cost.
- Risk as per time.
- Risk as per quality.

Project Risk Management involves conducting risk management planning, engaging in risk identification, completing risk analysis, creating a risk response action plan, and monitoring and controlling risk on a project. Project Risk Management is a continuous process to be engaged in throughout the entire project. A key point to remember is that risk is not always bad. There are opportunities and there are threats. The opportunities are the good risks. The treats are the bad risks. The purpose of project risk management is to increase the likelihood and impact of positive events and to decrease the probability and impact of negative events

Each Risk Management process results in a specific deliverable which is used as the foundations for the subsequent process. Combined the risk management processes provide a best practice pattern for managing risk on a project.

Strategies for Risk Management

- Reactive Risk Strategies (Never worrying about problem until they happened)
- Proactive Risk Strategies (A proactive Strategy begins long before technical work is initiated)

Characteristics of Risk

- Uncertainty – the risk may or may not happen i.e., there aren't 100% probable risks.
- Loss – if the risk becomes a reality, unwanted consequences or losses will occur.

9.1 Risk Identification

Risk Identification is a systematic attempt to specify threats to the project plan. By identifying the known and predictable risks, the project manager takes a first step towards avoiding them when possible and controlling them when necessary.

One method of identifying risks is to create a risk item checklist. The checklist can be used for risk identification and focuses on some subset of known and predictable risks in the following subcategories.

- Product Size –risks associated with the overall size of the software to be built or modified.
- Business impact –risks associated with constraints imposed by management.
- Customer Characteristics – risks associated with the sophistication of the customer and the developer's ability to communicate with the customer in a timely manner.
- Process Definition – risks associated with the degree to which the software process has been defined & is followed by the organization.

- Development Environment – risks about the availability and quality of the tools to be used to build the project.
- Technology to be built – risk on the complexity of the system to be built and the newness of the technology.
- Staff size and experience – risks with the overall technical and project experience of the software engineers who will handle the work.

9.2 Risk Analysis

Our project is threat to following known and predictable risks:

Effectiveness
This is one of the major risks because it is not worthwhile if the project developed does not serve for what it is developed. So Effectiveness (Usability Risk) is one of major risk involved.

Efficiency
Efficiency is also major risk because the project developed should be efficient to the functionality it provides. So we have to consider this threat also.

Confidentiality
Because of the user should get access according to his/her authorization. So Confidentiality Risk is also considerable threat.

Integrity
The application should also threat by Integrity Risk .The data related to the project should be preserve qualities like consistency.

Availability
The application also less threat by Availability Risk Because it depends on availability of web-server (which is quite high).

Compliance
Project is threat by this risk because the project should follow specific standards.

Reliability
The application to be developed is also threat by Reliability Risk because the processing done and information should be reliable.

9.3 Risk Planning

To assist the project team in developing a strategy for dealing with risk, an effective strategy must consider three issues:

- Risk avoidance
- Risk Monitoring
- Risk Management

Risk Mitigating

- Meet with current staff to determine causes for turnover.
- Mitigate those causes that are under our control before the project starts.
- Once the project commences, assume turnover will occur and develop techniques to ensure continuity when people leave.
- Organize project teams so that information about each development activity is widely dispersed.
- Define documentation standards and establish mechanisms to ensure that documents are developed in a timely manner.
- Assign a backup staff member for every critical technologist.

Risk Monitoring

- General attitude of team members based on project pressures.
- The degree to which the team has jelled.
- Interpersonal relationships among team members.
- Potential problems with compensation and benefits.
- The availability of jobs within the company and outside it.

RMMM Plan

A risk management strategy can be included in the software project plan or the risk management steps can be organized into a separate Risk Mitigation, Monitoring and Management Plan. The RMMM plan documents all performed as part of risk analysis and are used by project manager as part of the overall project plan.

10. TESTING

Software testing is a process of running with intent of finding errors in software.
Software testing assures the quality of software and represents final review of other phases of software like specification, design, code generation etc.

10.1 Unit Testing

Software products are normally tested first at the individual component (unit) level. Unit testing (or module testing) is the testing of different units (or modules) of a system in isolation.

10.2 Integration Testing

In integration testing a system consisting of different modules is tested for problems arising from component interaction. Integration testing should be developed from the system specification. Firstly, a minimum configuration must be integrated and tested.

In my project I have done integration testing in a bottom up fashion i.e. in this project I have started construction and testing with atomic modules. After unit testing the modules are integrated one by one and then tested the system for problems arising from component interaction.

10.3 Validation Testing

It provides final assurances that software meets all functional, behavioral & performance requirement. Black box testing techniques are used.

There are three main components Validation test criteria (no. in place of no. & char in place of char)

- Configuration review (to ensure the completeness of s/w configuration.)
- Alpha & Beta testing-Alpha testing is done at developer's site i.e. at home & Beta testing once it is deployed. Since I have not deployed my application, I could not do the
- Beta testing.

Test Cases- I have used a number of test cases for testing the product. There were different cases for which different inputs were used to check whether desired output is produced or not.

10.4 White Box Testing

In white box testing knowing the internal working of the product, tests can be conducted to ensure that internal operations are performed according to specification and all internal components have been adequately exercised. In white box testing logical path through the software are tested by providing test cases that exercise specific sets of conditions and loops.

Using white-box testing software developer can derive test case that

Guarantee that all independent paths within a module have been exercised at least once.

Exercise all logical decisions on their true and false side.

Exercise all loops at their boundaries and within their operational bound.

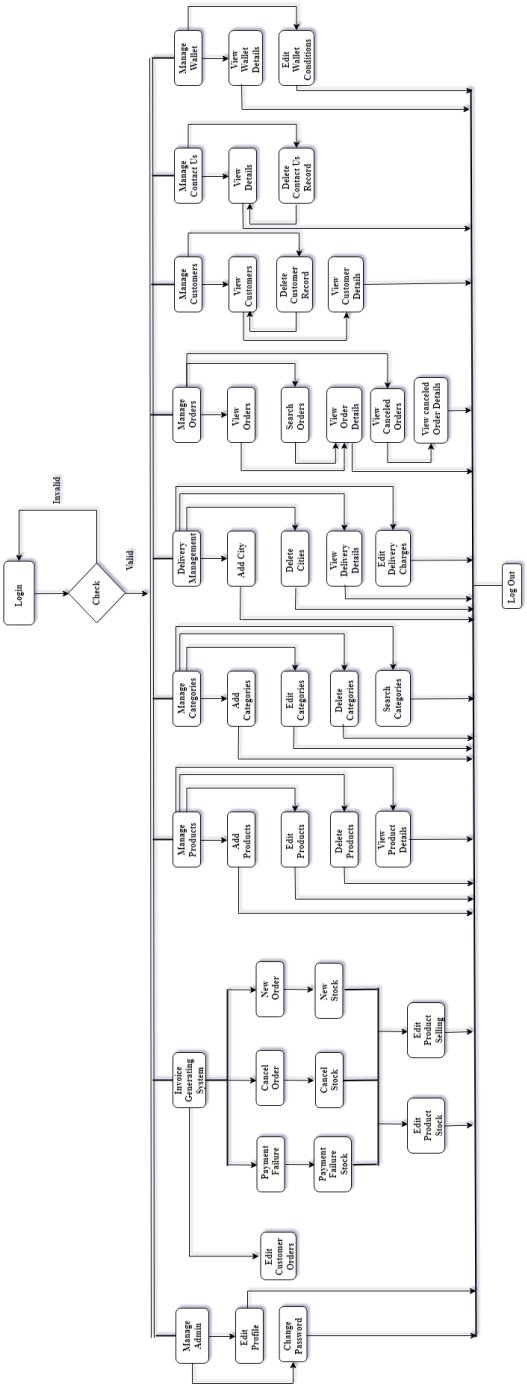
Exercise internal data structure to ensure their validity. At every stage of project development I have tested the logics of the program by supplying the invalid inputs and generating the respective error messages. All the loops and conditional statements are tested to the boundary conditions and validated properly.

10.5 Performance Testing

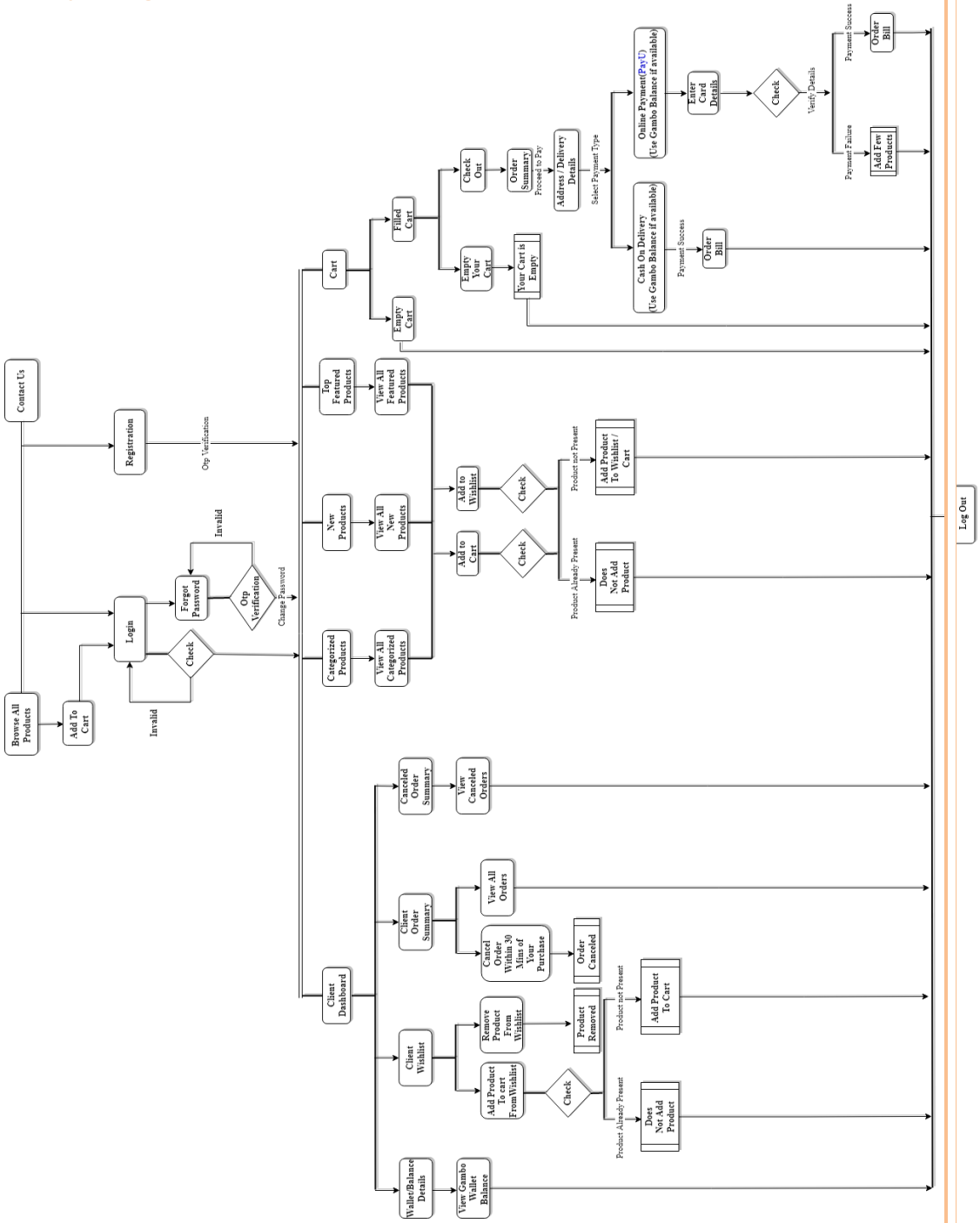
Performance of the project is must factor for any successfully project. Testing on all the modules is done by me to evaluate the results.

11. ACTIVITY DIAGRAM

11.1 Admin Activity Diagram

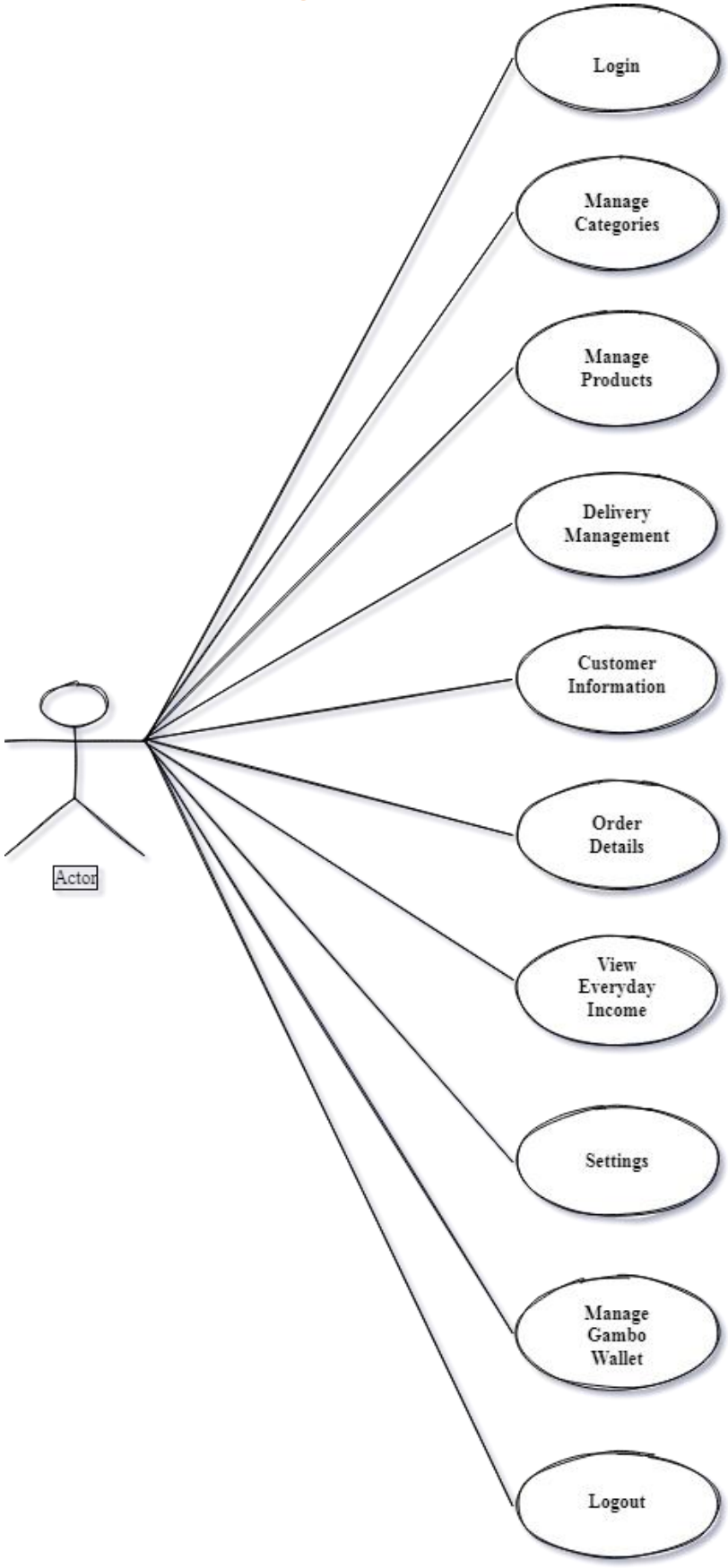


11.2 Client Activity Diagram

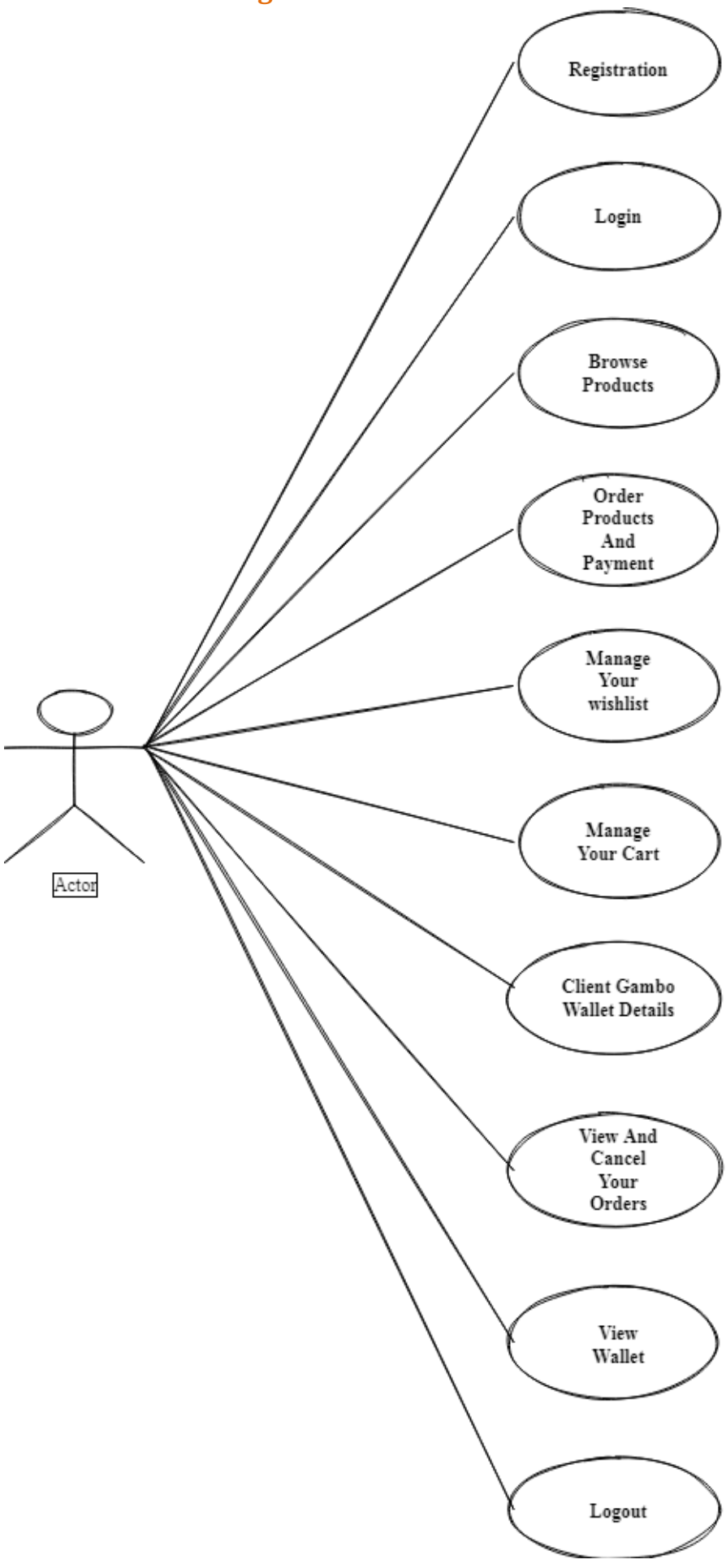


12.USE CASE DIAGRAM

12.1 Admin Use Case Diagram



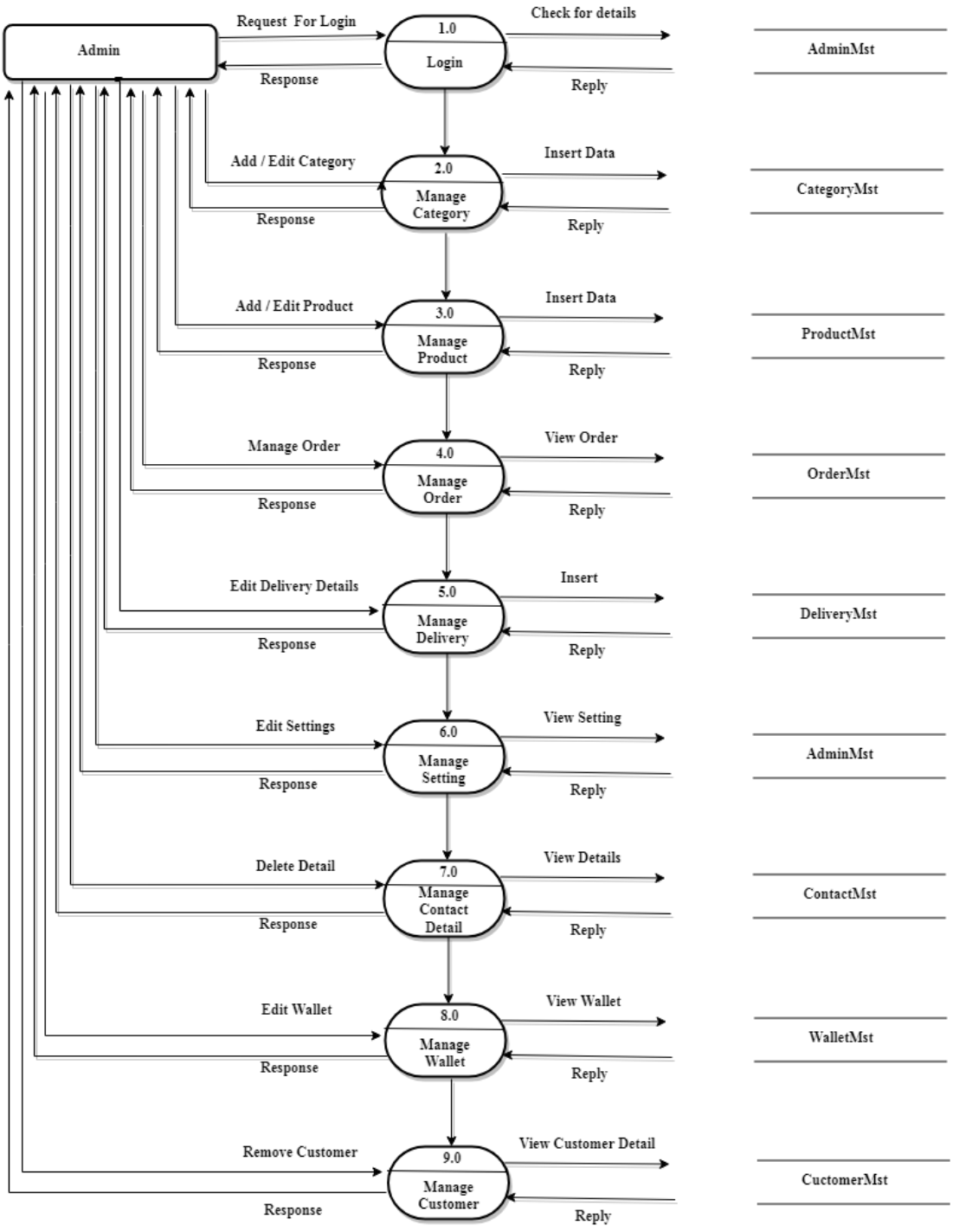
12.2 Client Use Case Diagram



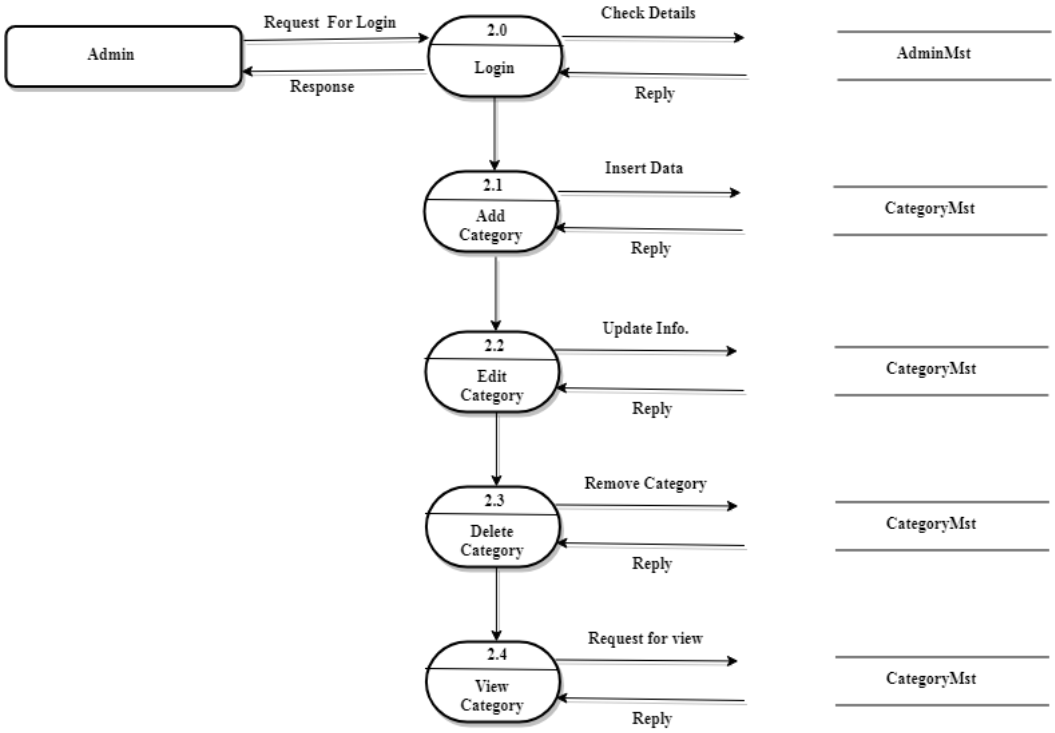
13.DATA FLOW DIAGRAM

13.1 DFD - Level 0

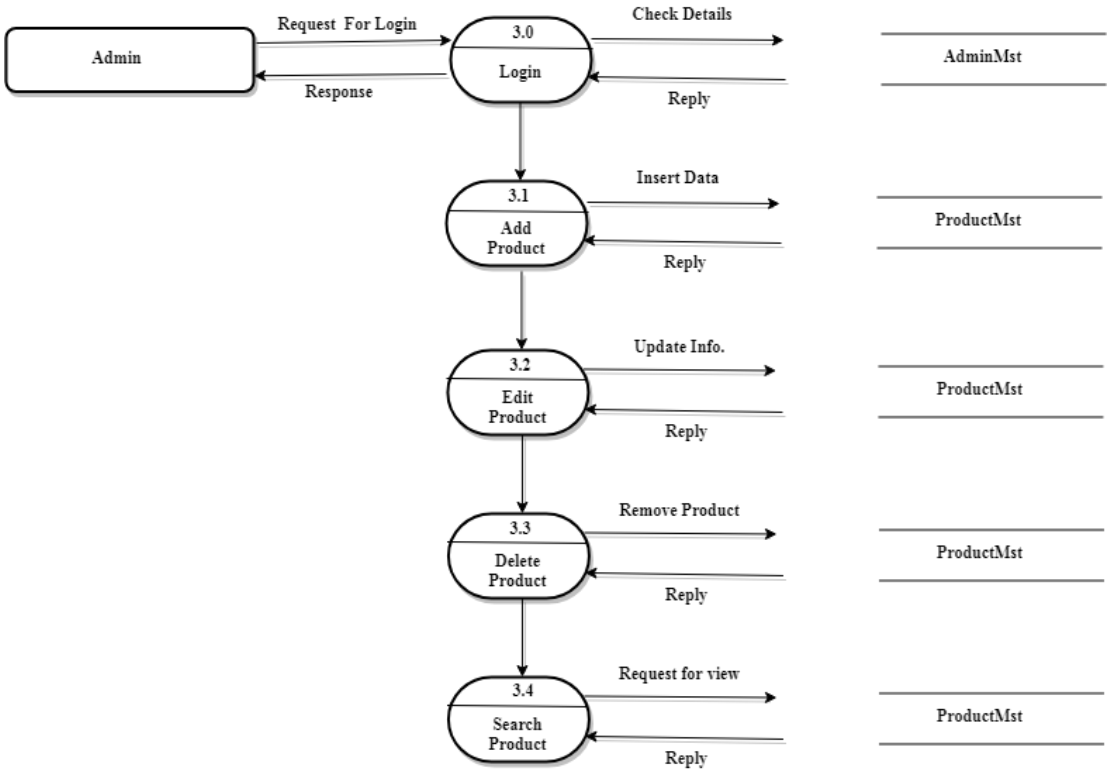
13.2 DFD - Level 1 (Admin)



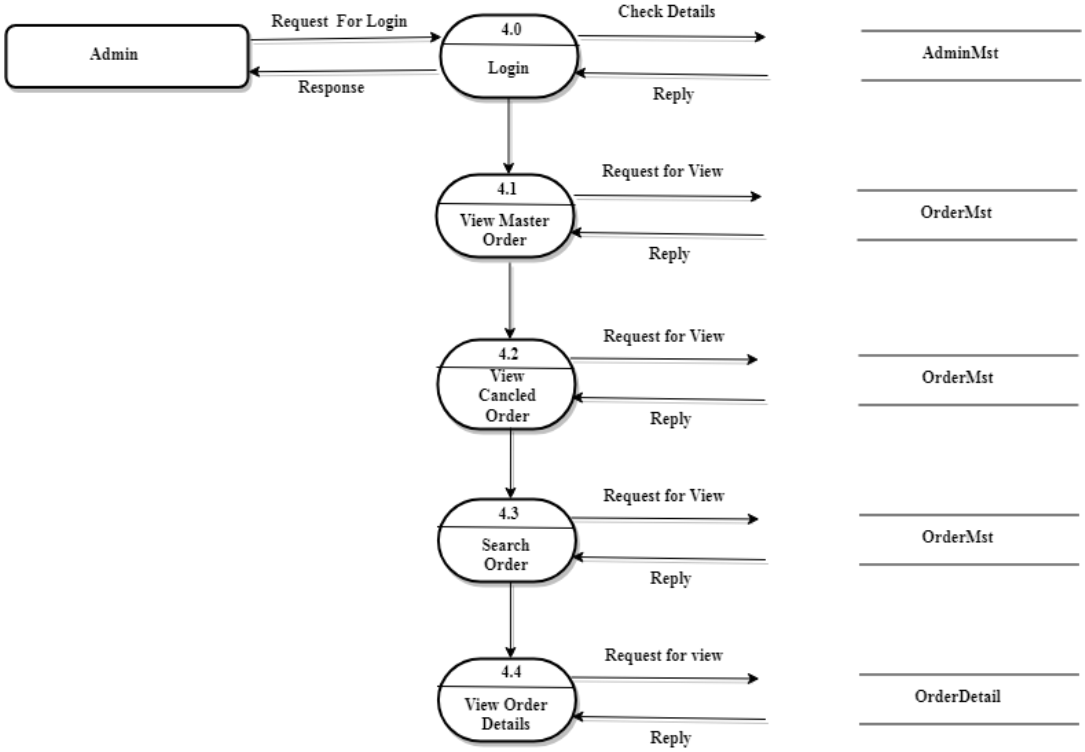
13.2.1 DFD - Level 2(Category)



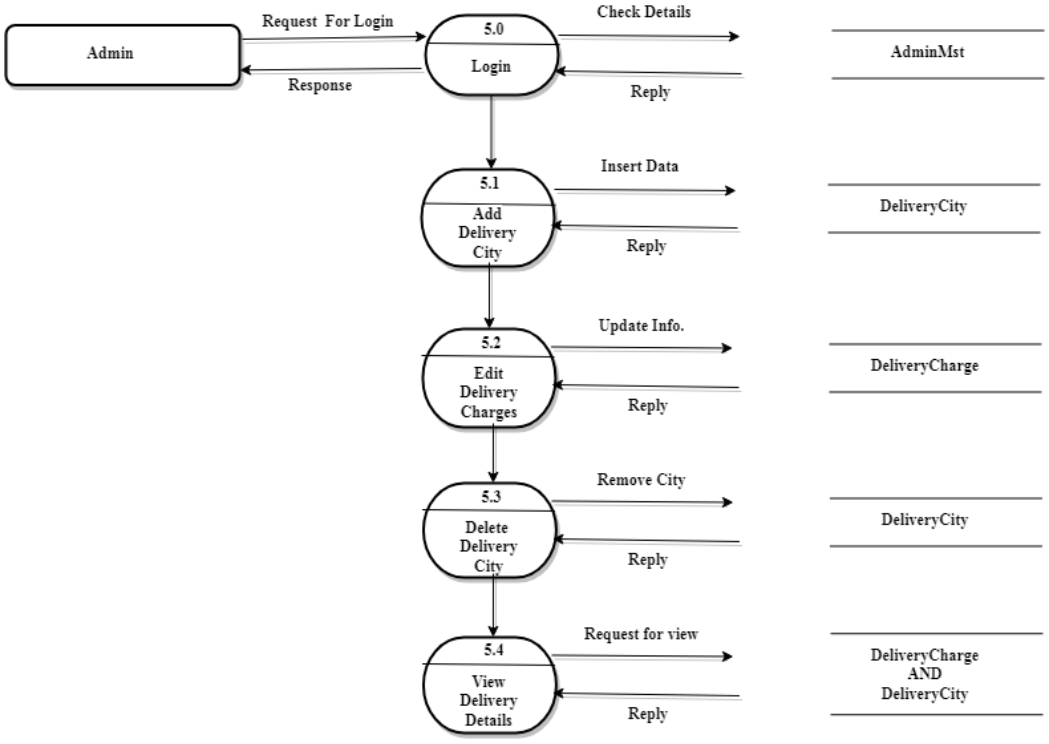
13.2.2 DFD - Level 2(Product)



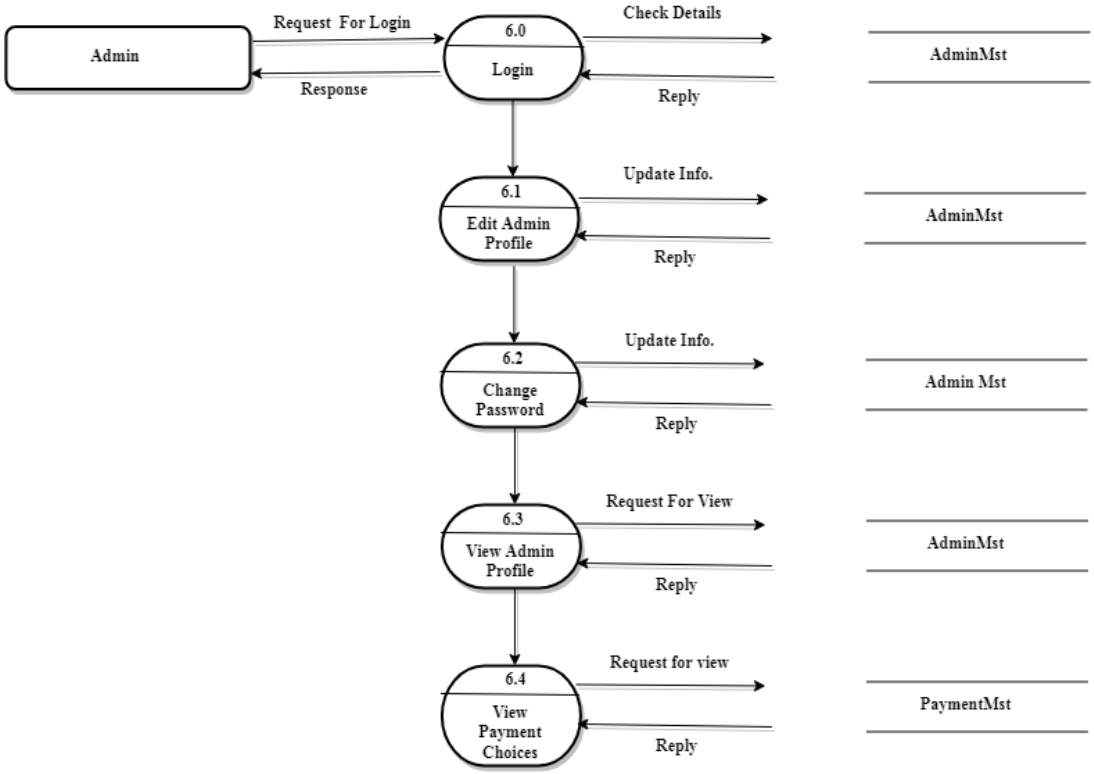
13.2.3 DFD - Level 2(Order)



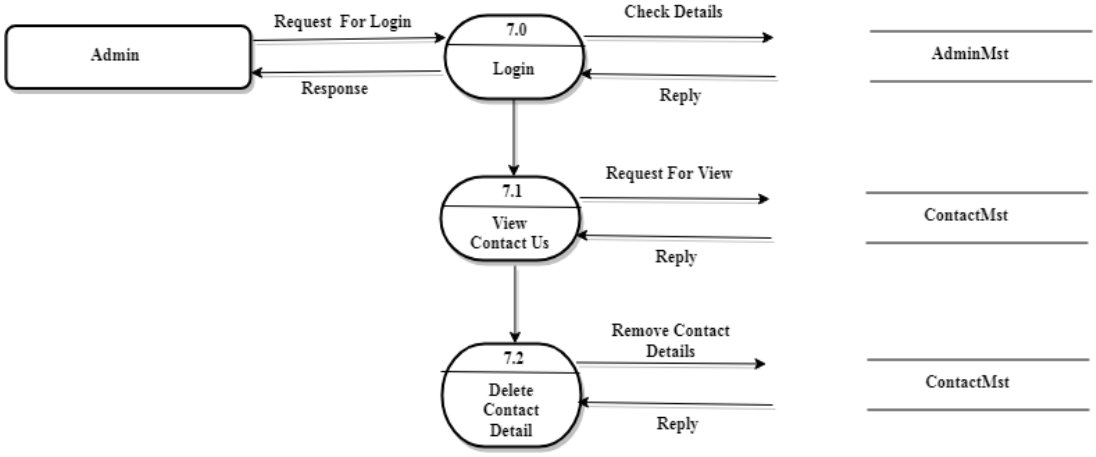
13.2.4 DFD - Level 2(Delivery)



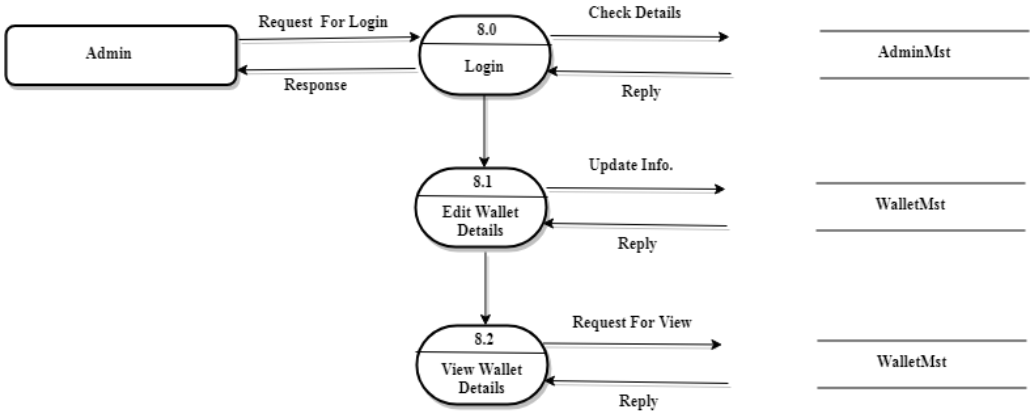
13.2.5 DFD - Level 2(Setting)



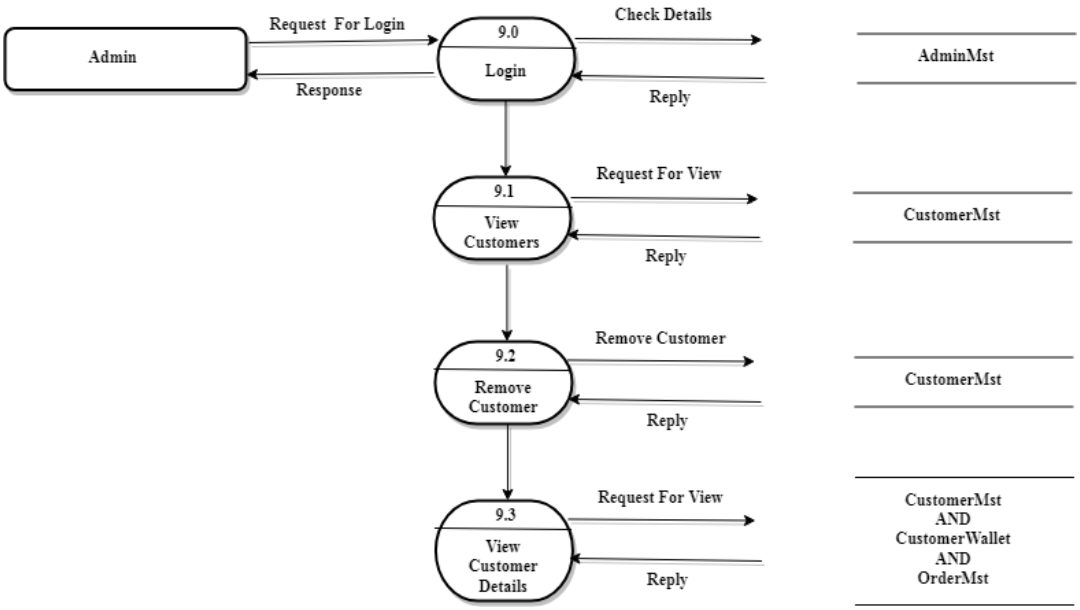
13.2.6 DFD - Level 2(Contact)



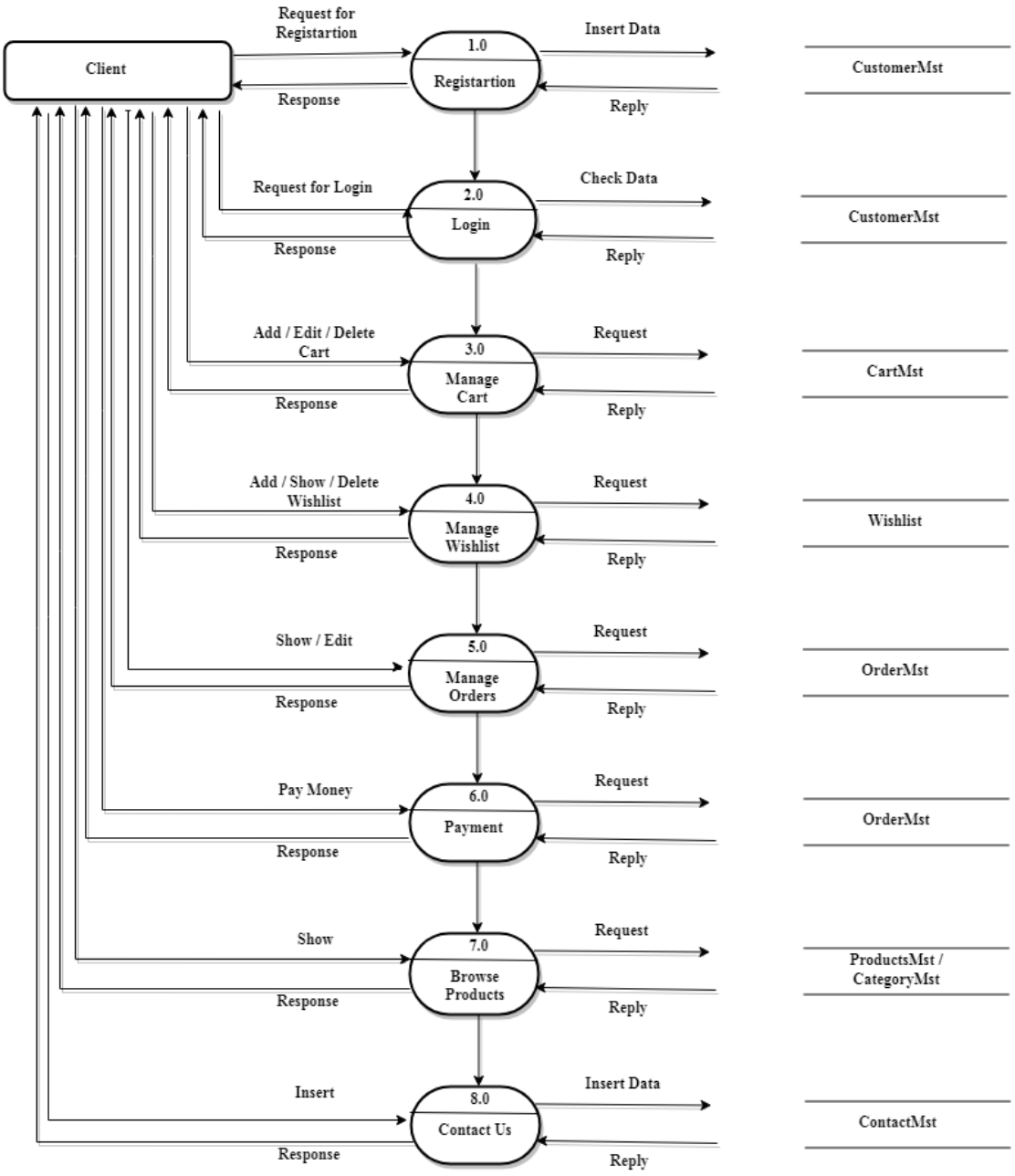
13.2.7 DFD - Level 2(Wallet)



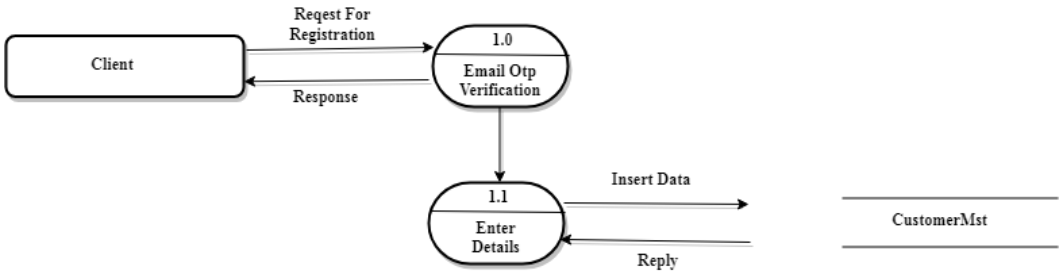
13.2.8 DFD - Level 2(Customer)



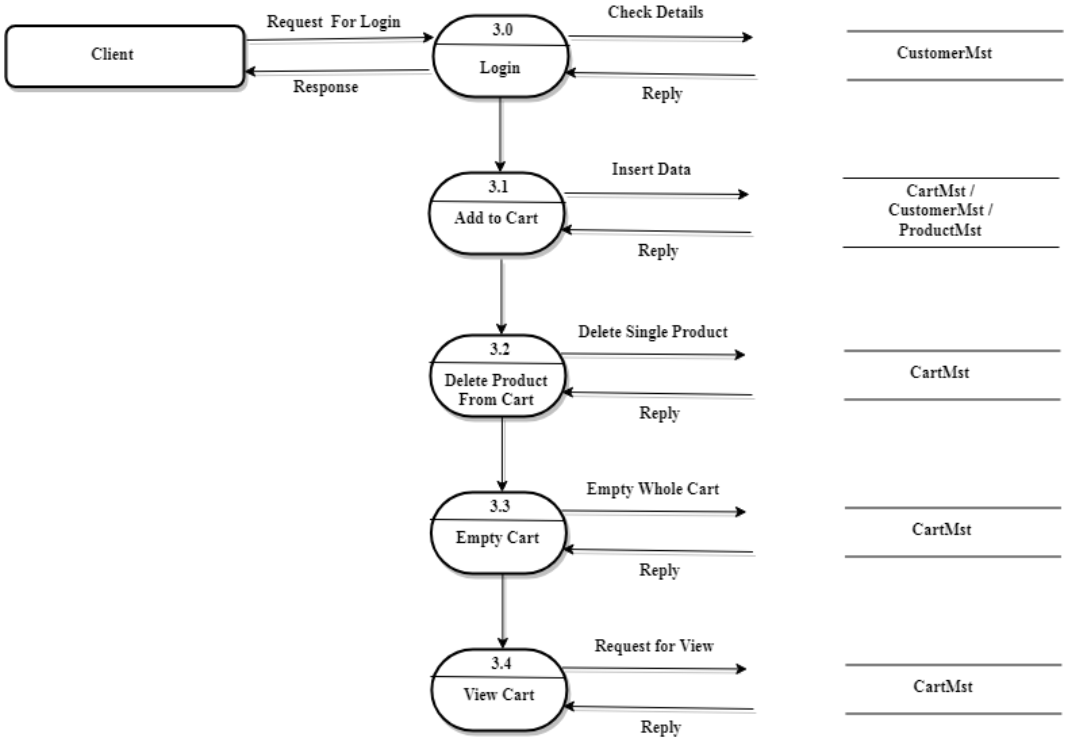
13.3 DFD - Level 1 (Client)



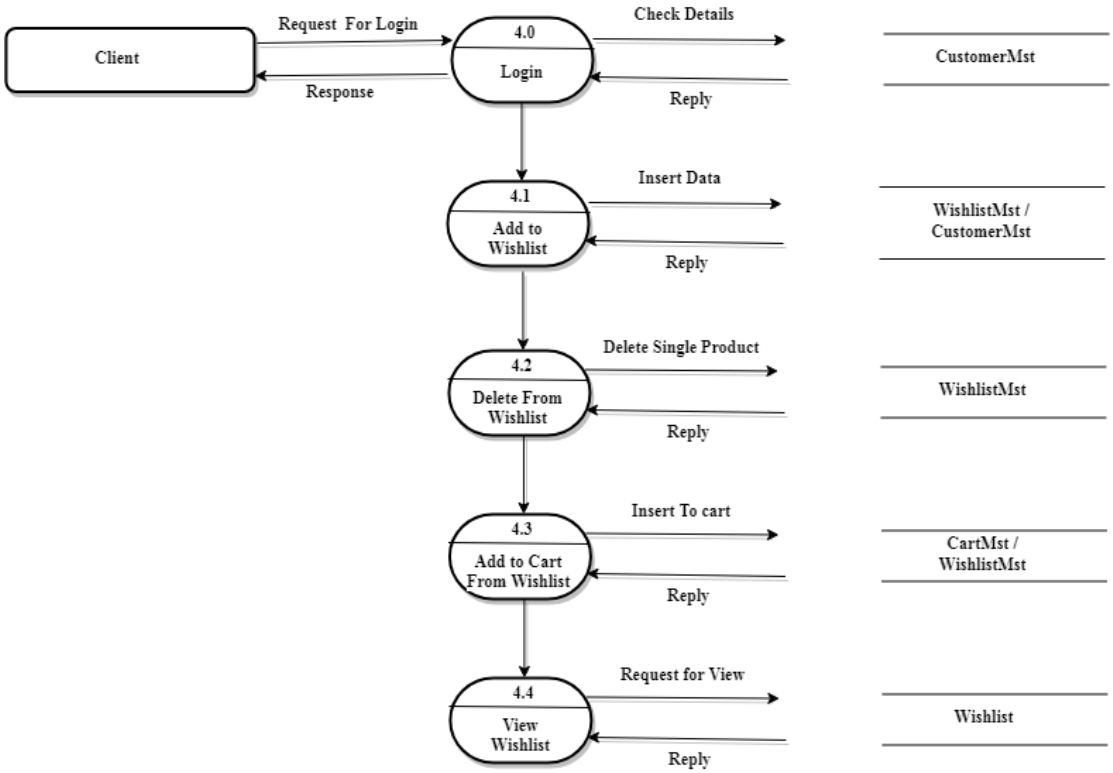
13.3.1 DFD - Level 2 (Registration)



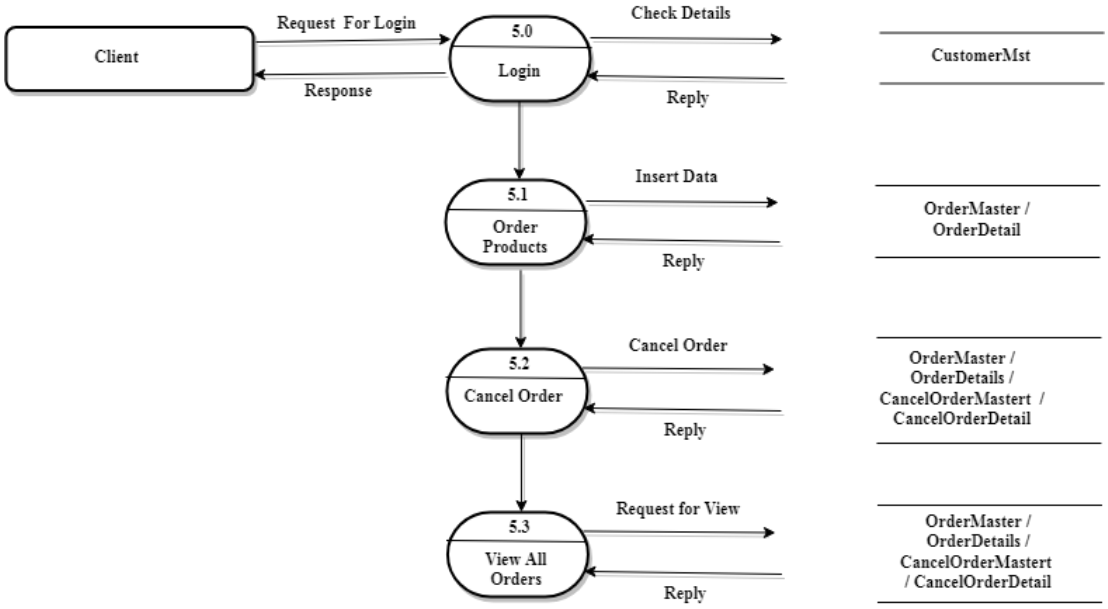
13.3.2 DFD - Level 2(Cart)



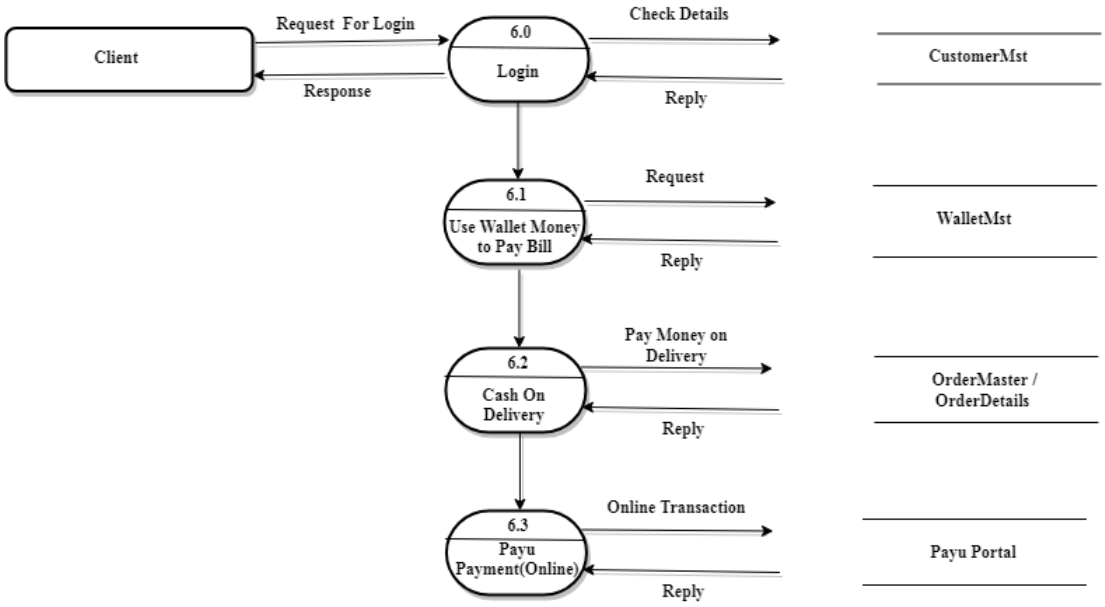
13.3.3 DFD - Level 2(Wish list)



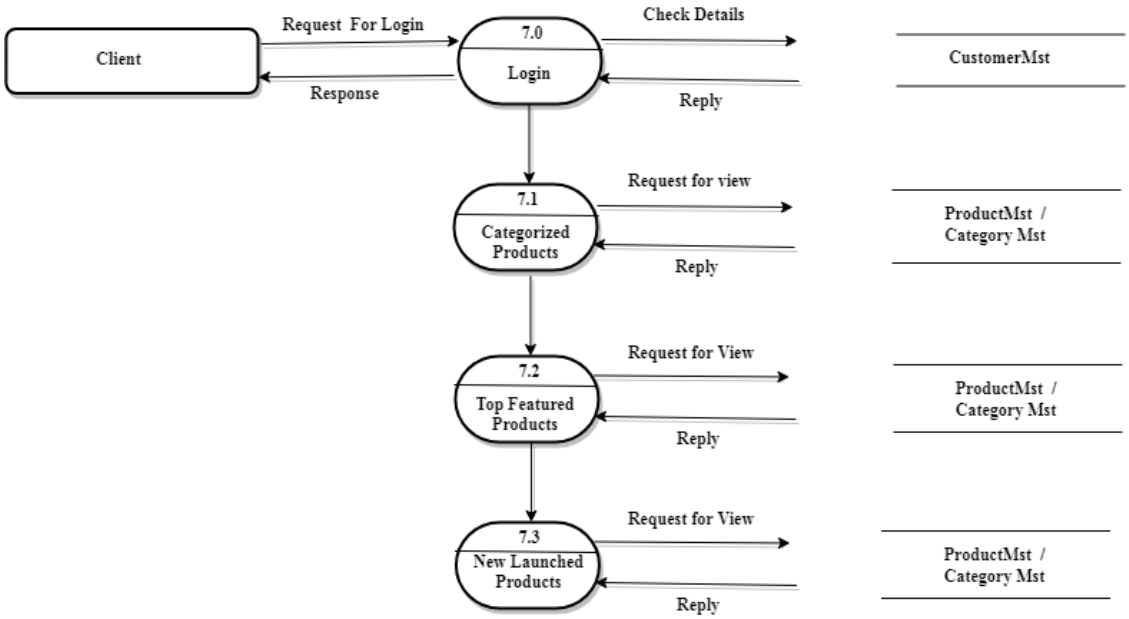
13.3.4 DFD - Level 2(Orders)



13.3.5 DFD - Level 2(Payment)



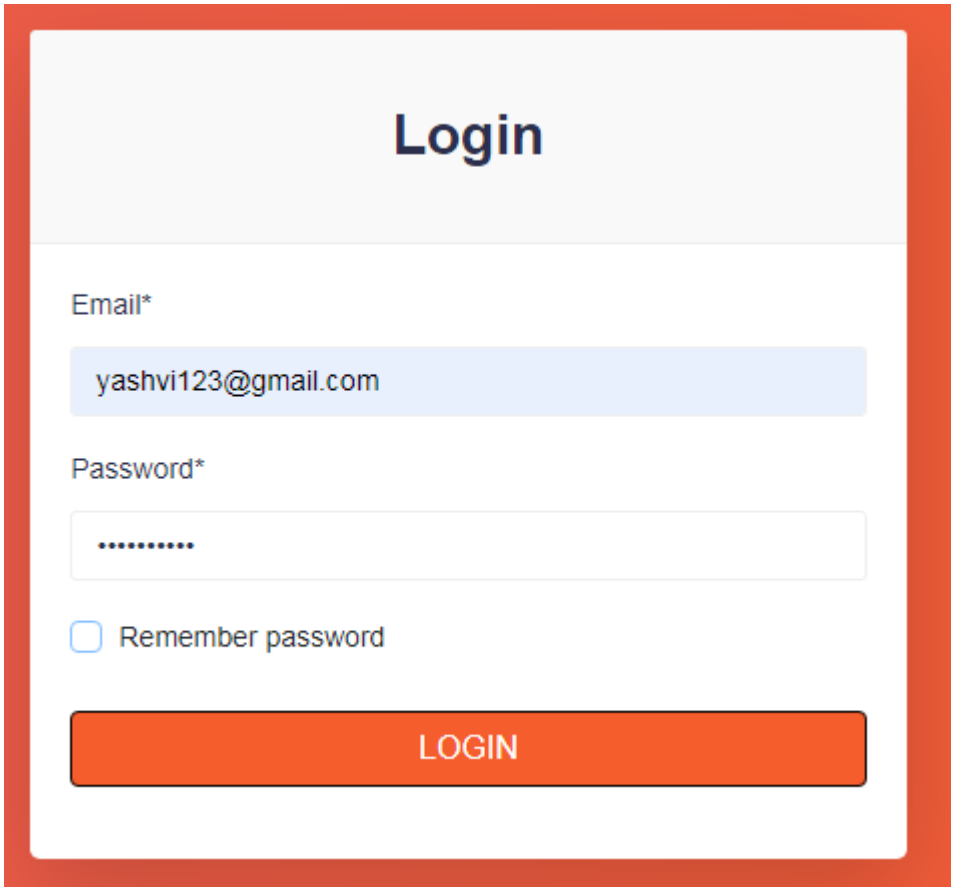
13.3.6 DFD - Level 2 (Browse Products)



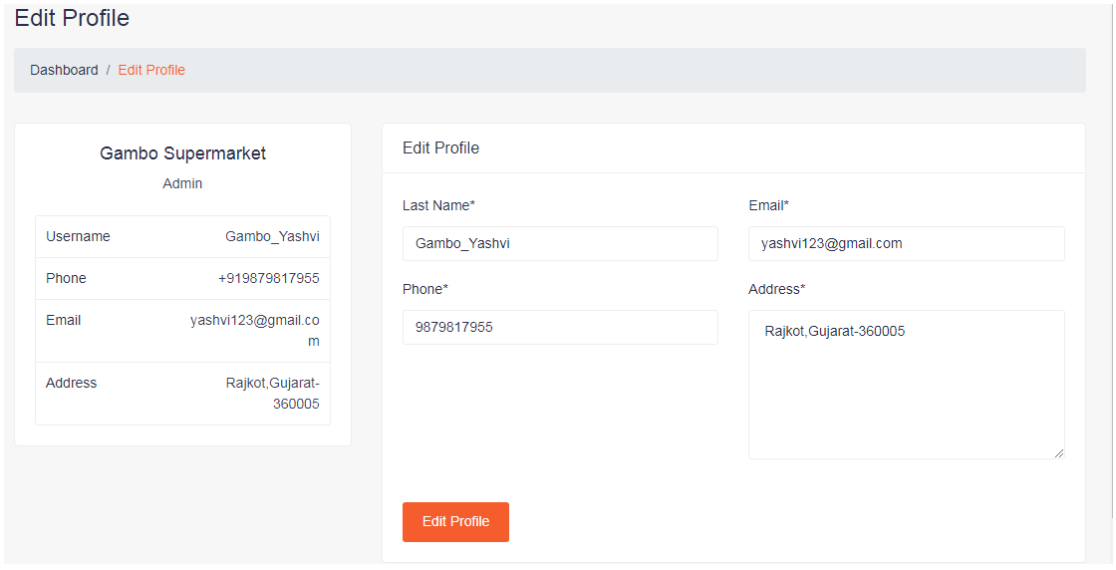
14. WORKING MODEL

14.1 Admin Side

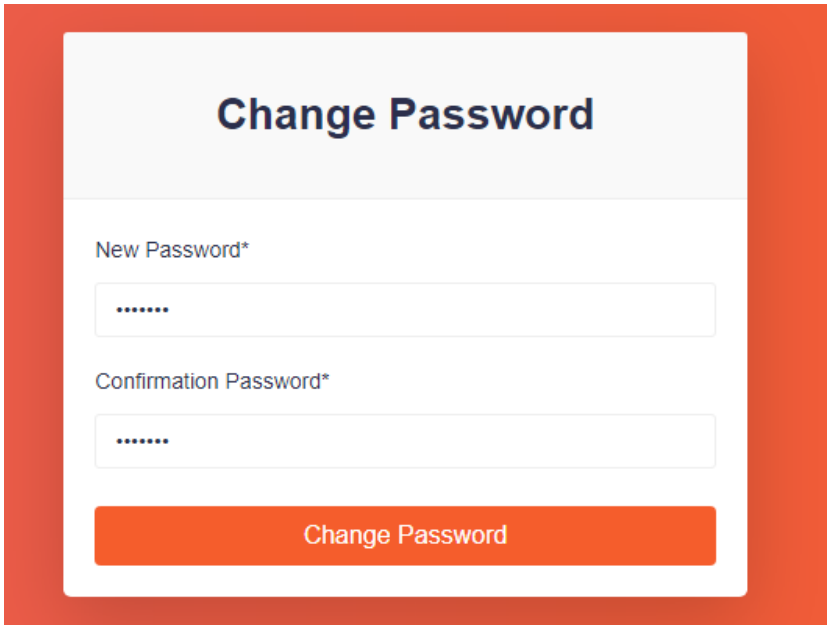
14.1.1 Login



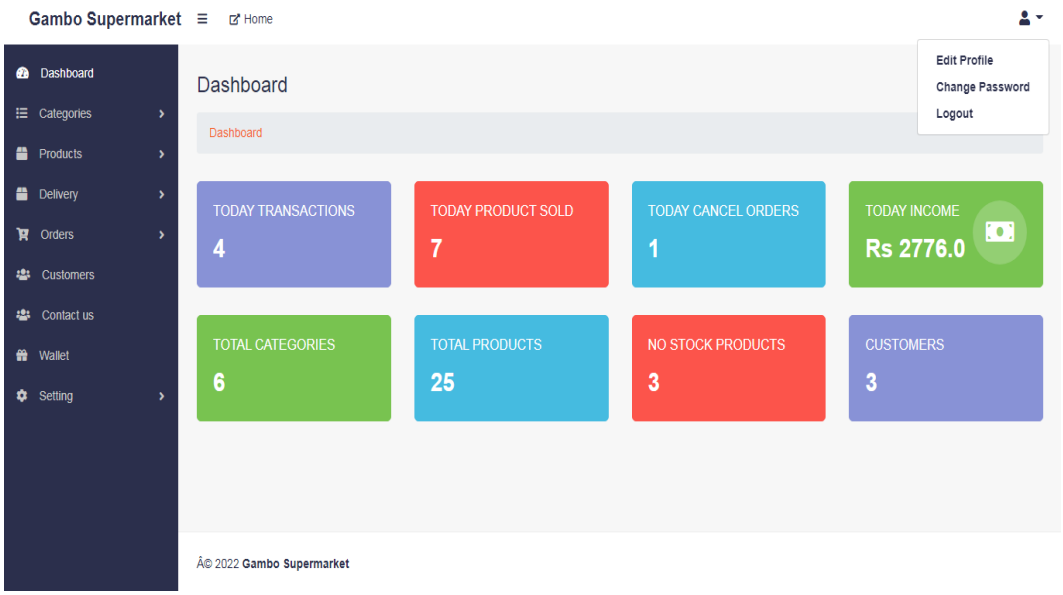
14.1.2 Edit Profile



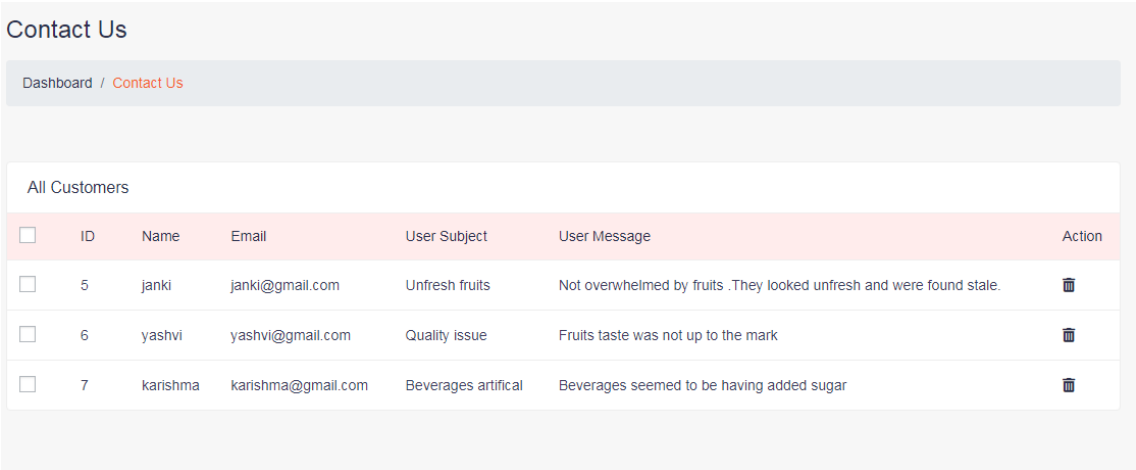
14.1.3 Change Password



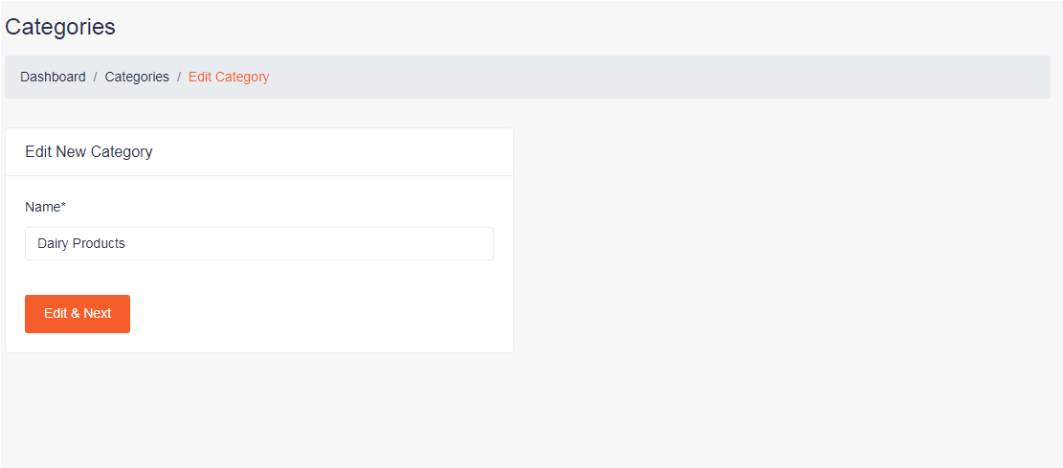
14.1.4 Dashboard



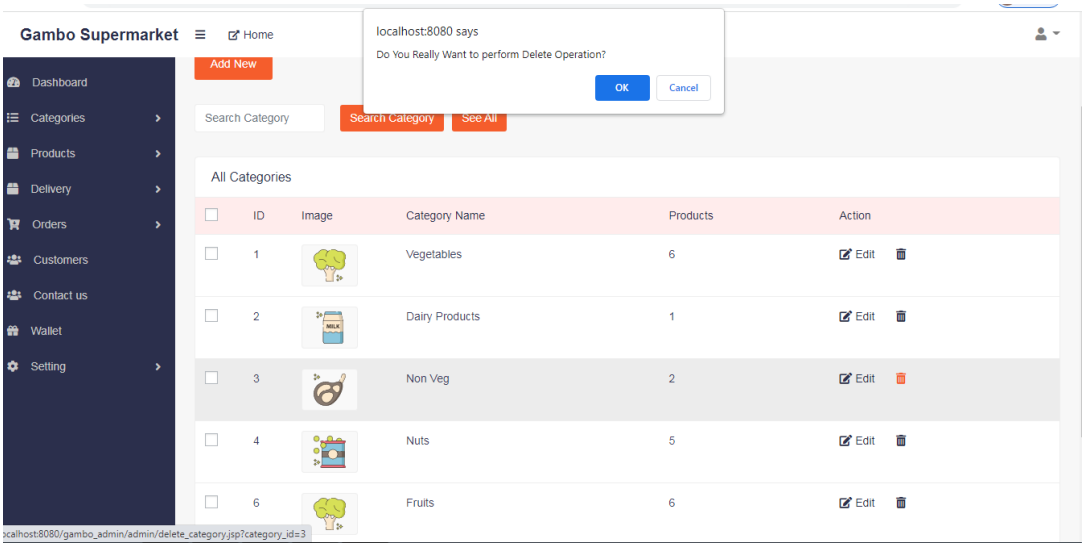
14.1.5 Contact Us



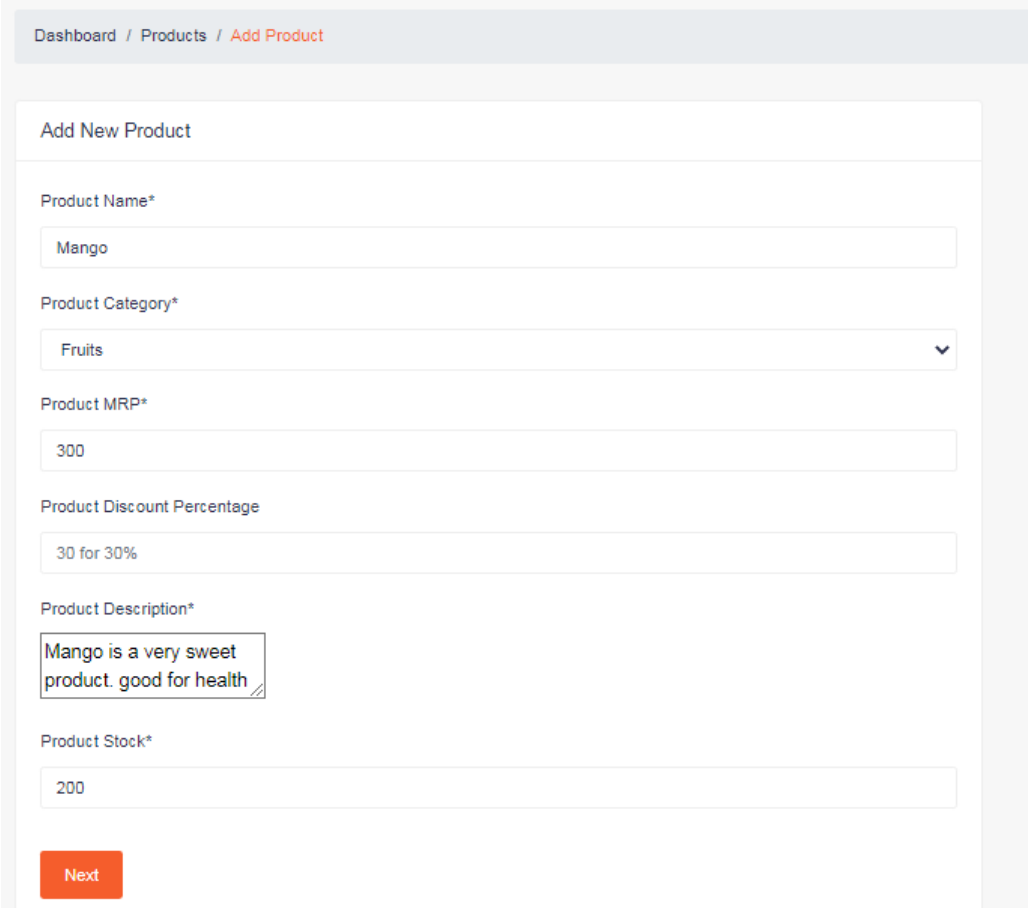
14.1.6 Edit Category



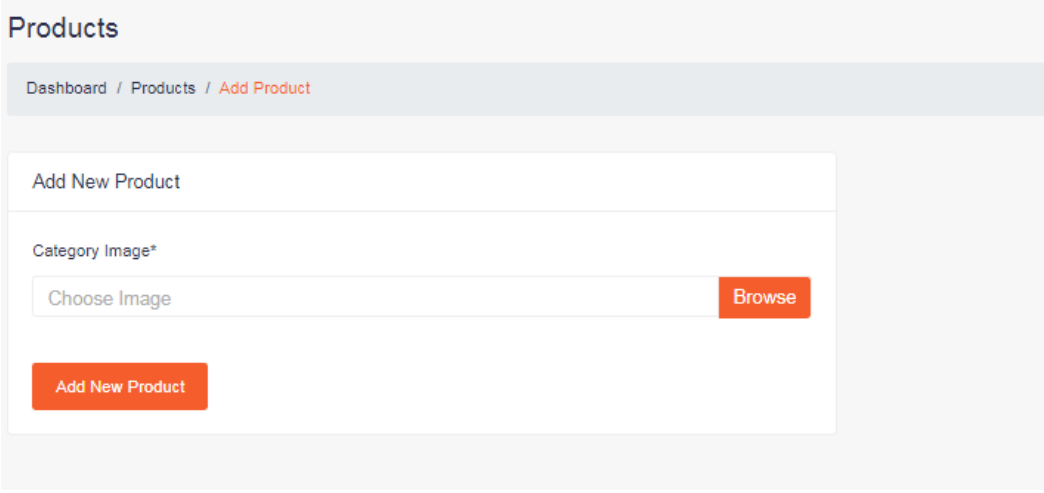
14.1.7 Delete Category



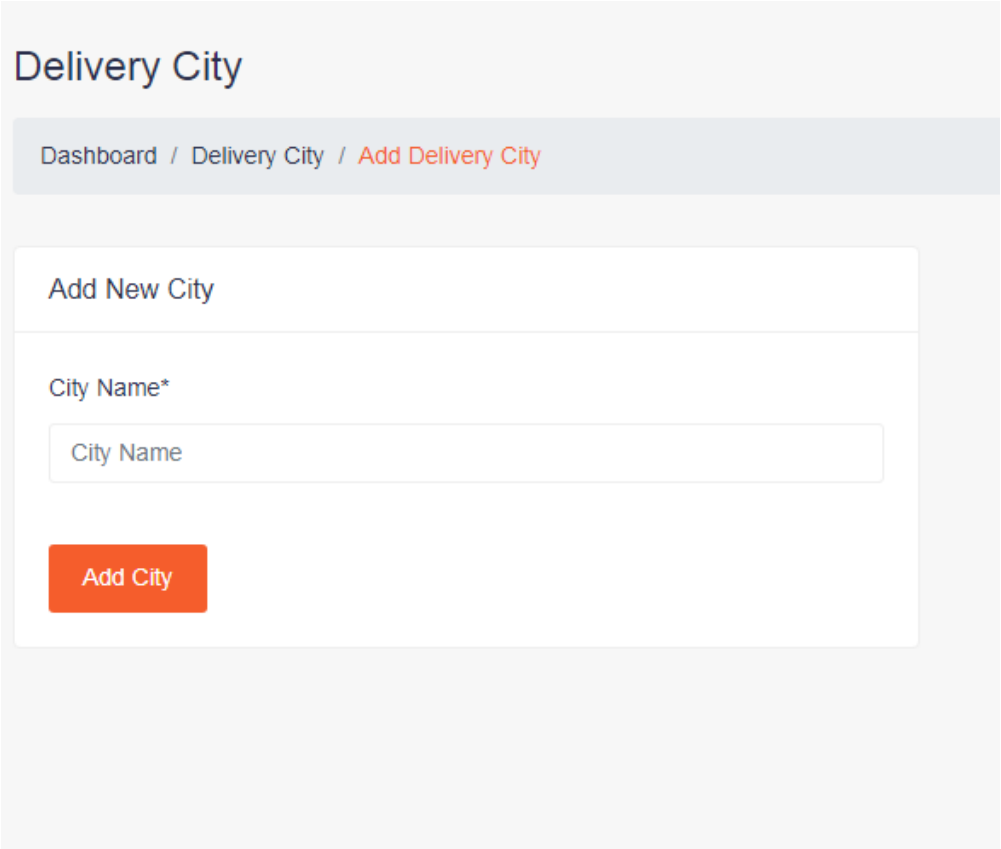
14.1.8 Add Product Details



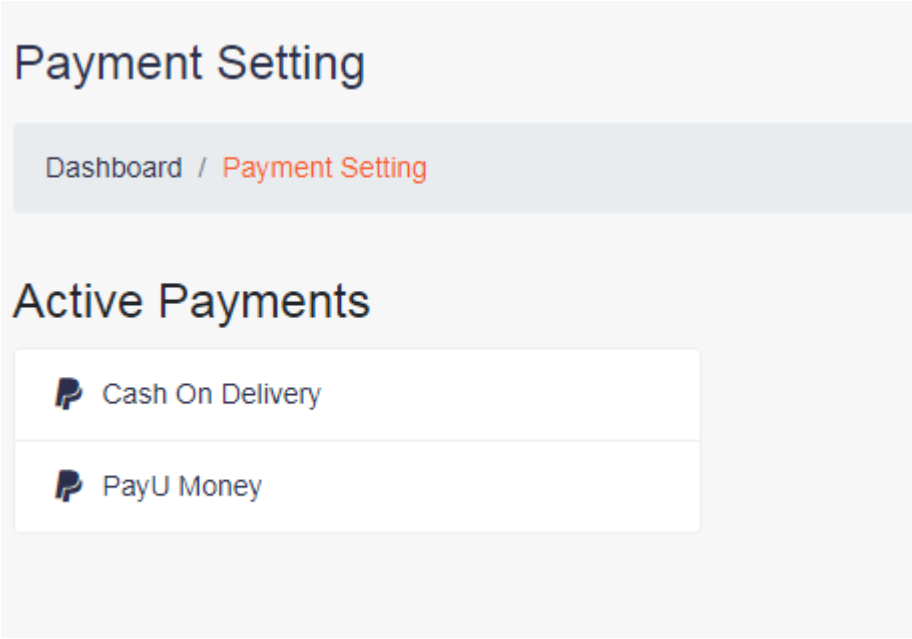
14.1.9 Add Product Image



14.1.10 Add Delivery City

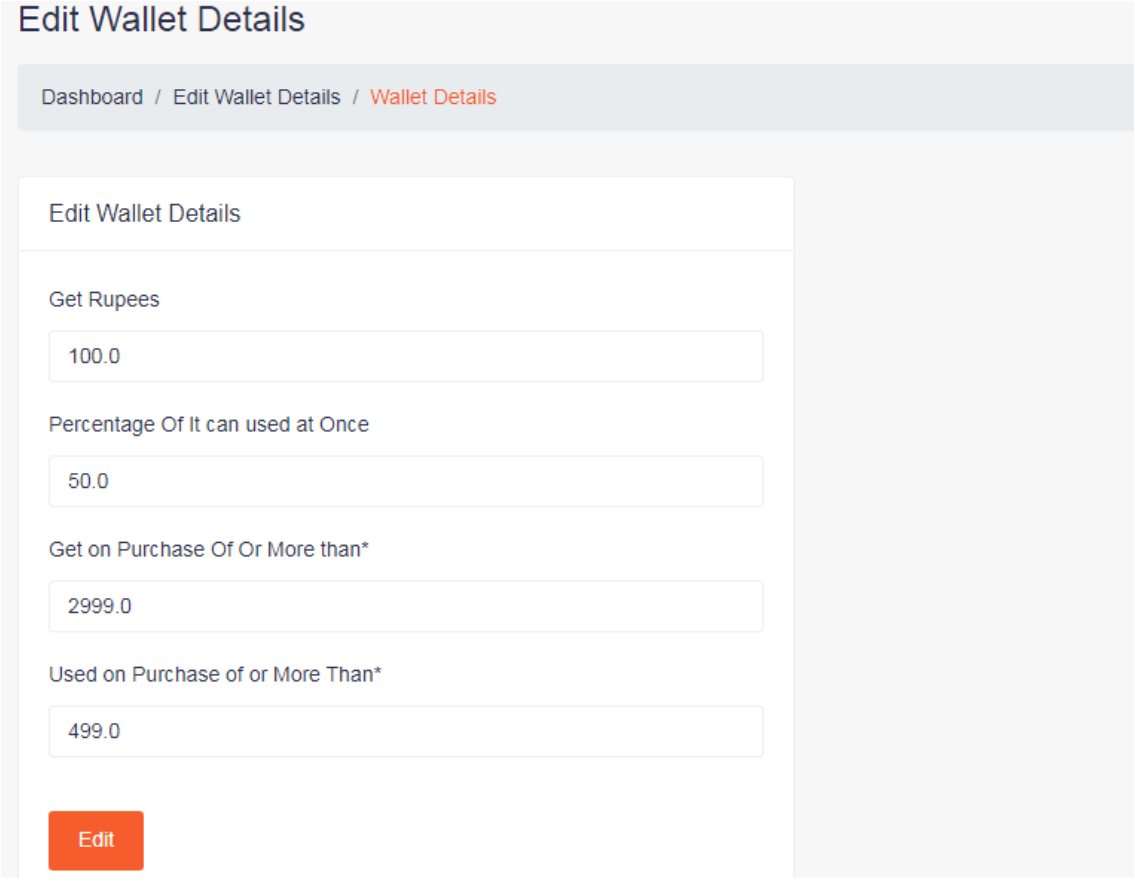


14.1.11 Payment Setting

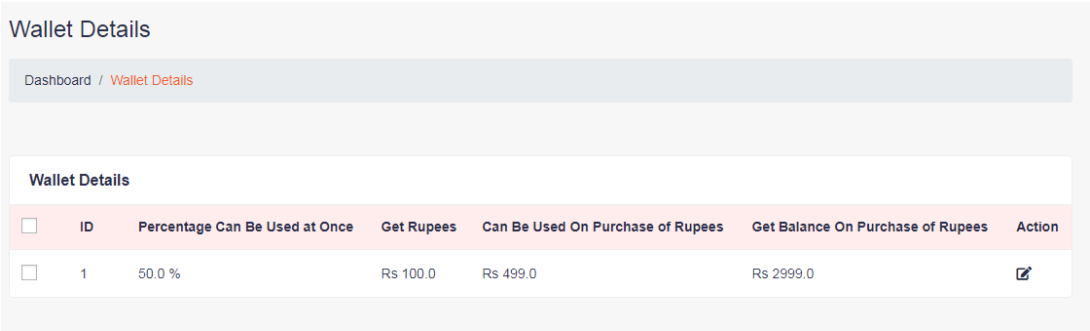


14.1.12 Delivery View Details

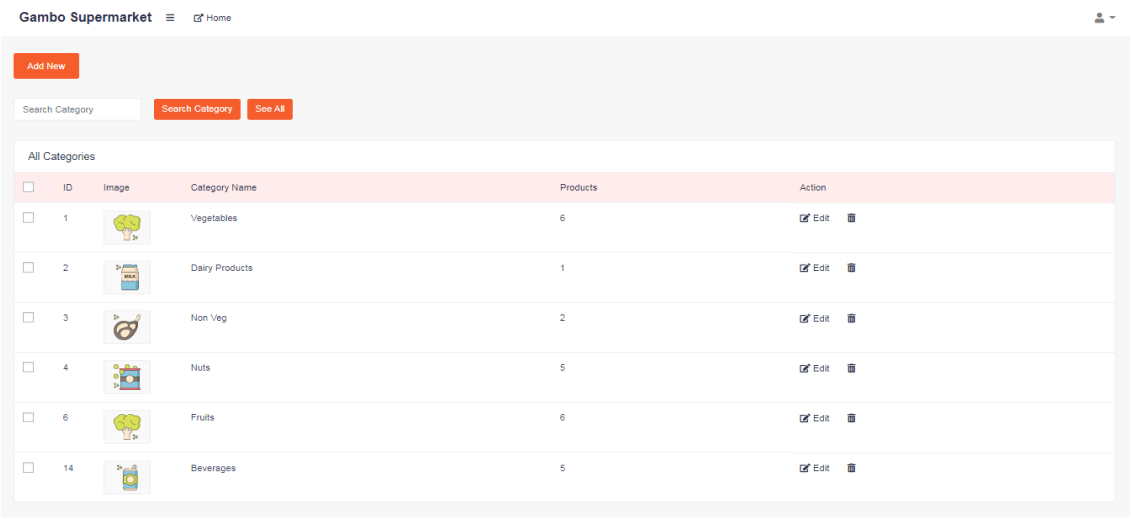
14.1.13 Edit Wallet Details



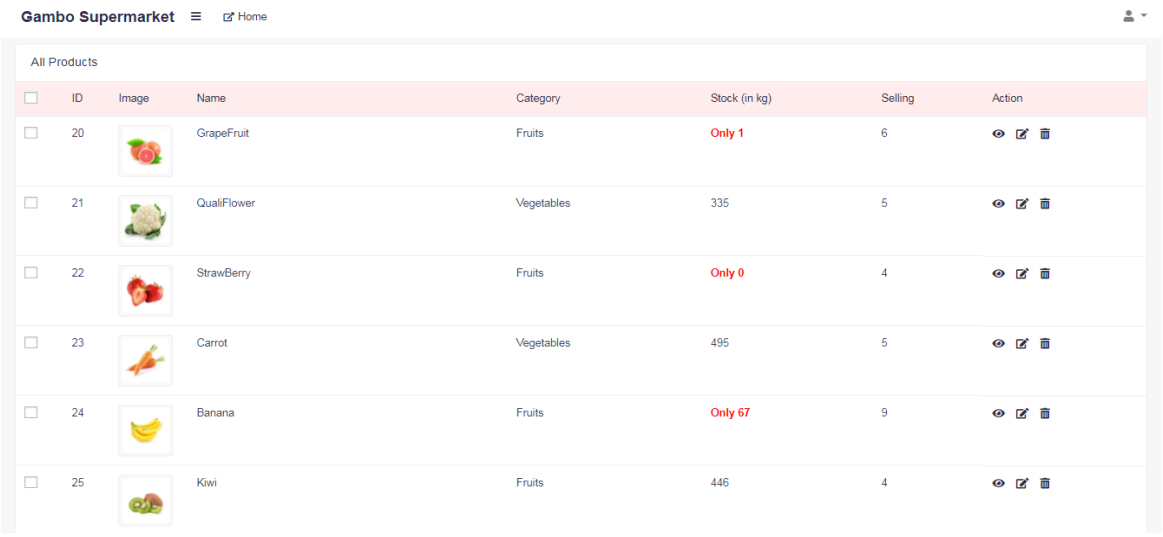
14.1.14 View Wallet Details



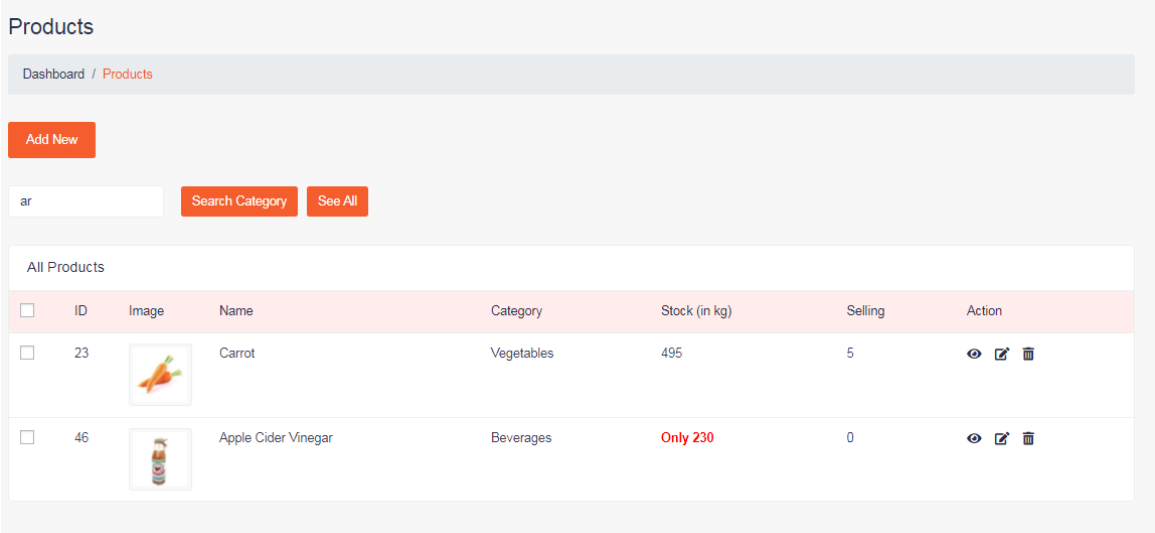
14.1.15 View All Category



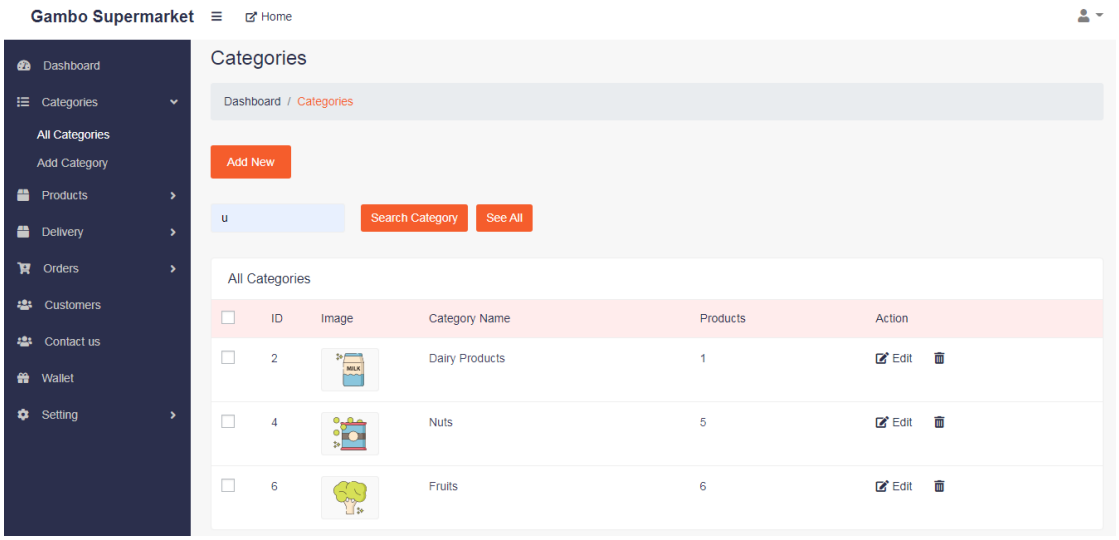
14.1.16 View All Products



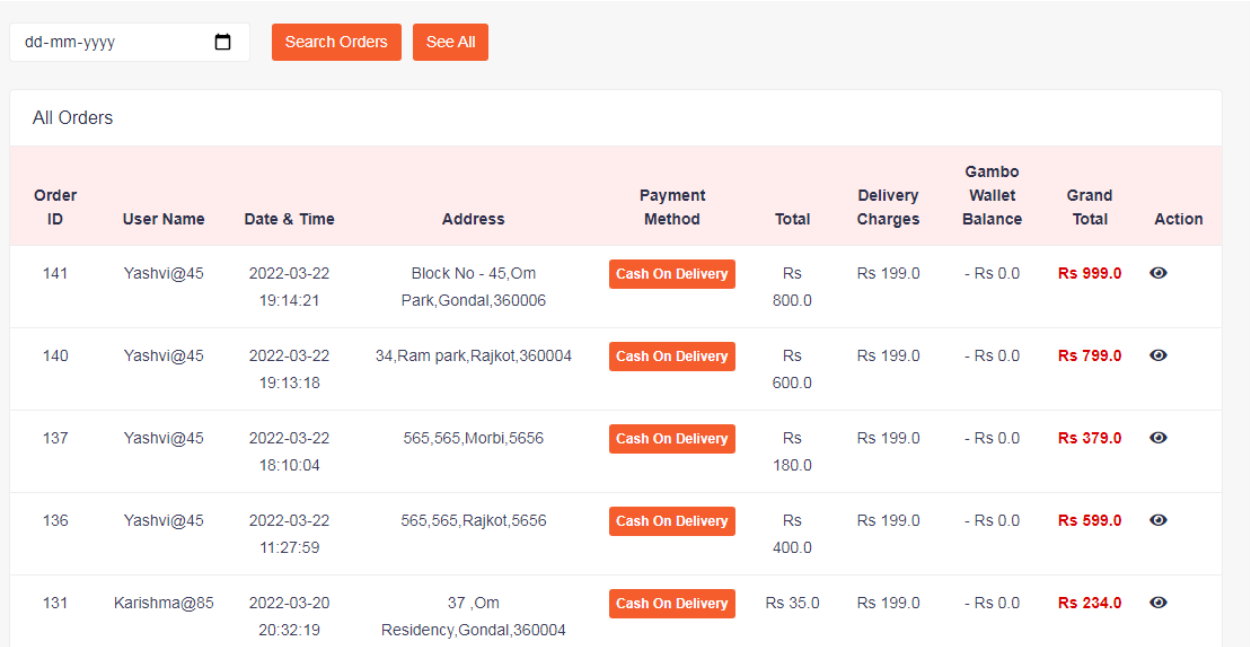
14.1.17 Search Products



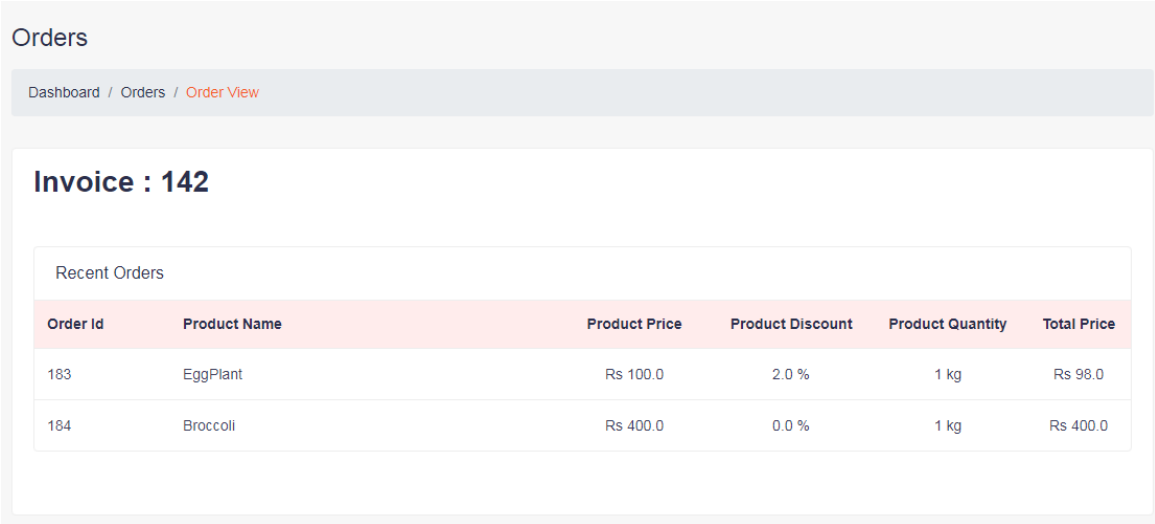
14.1.18 Search Category



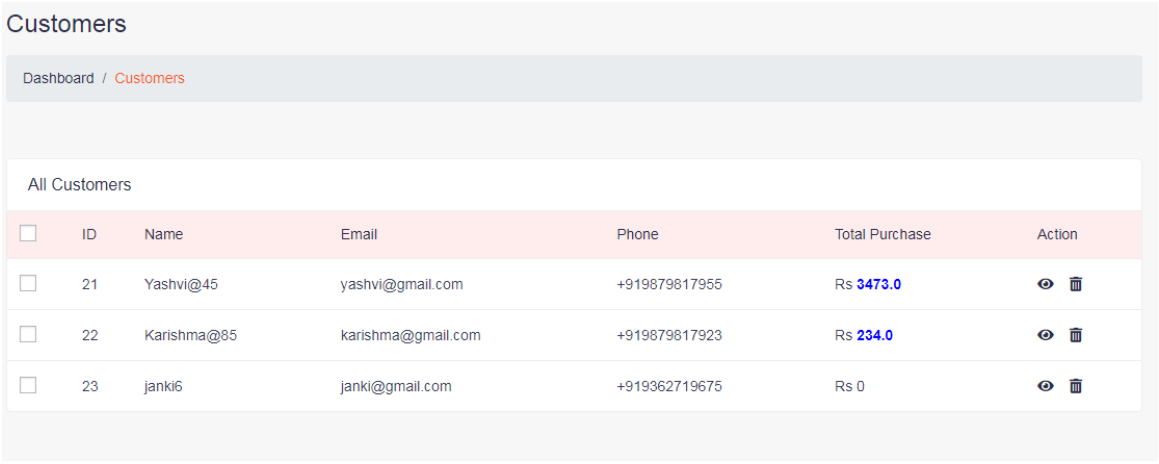
14.1.19 View all Orders



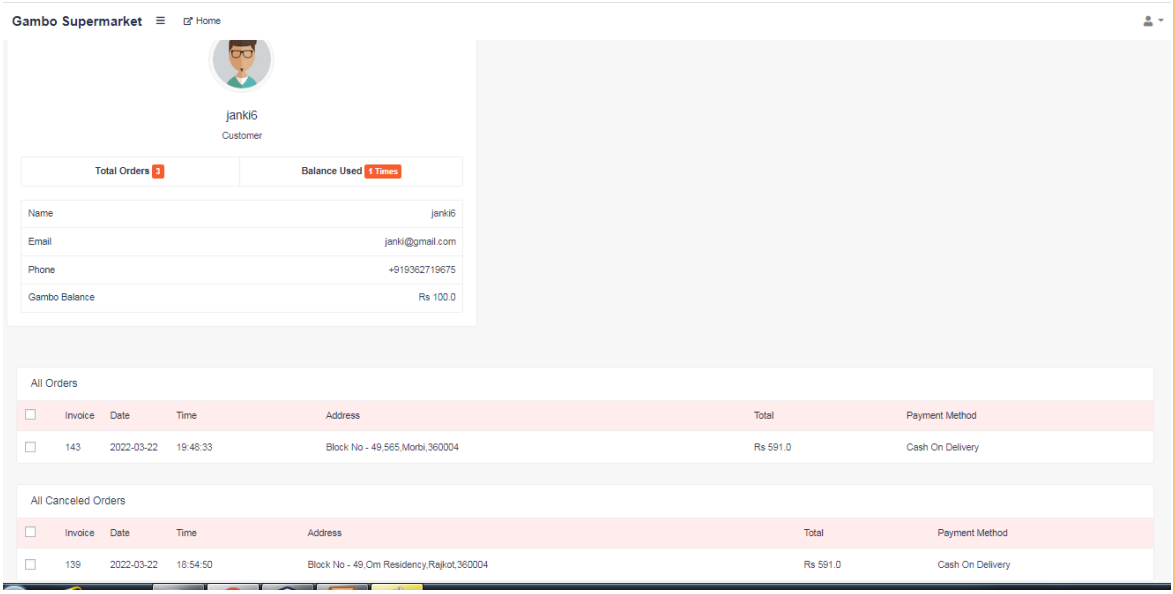
14.1.20 View order Details



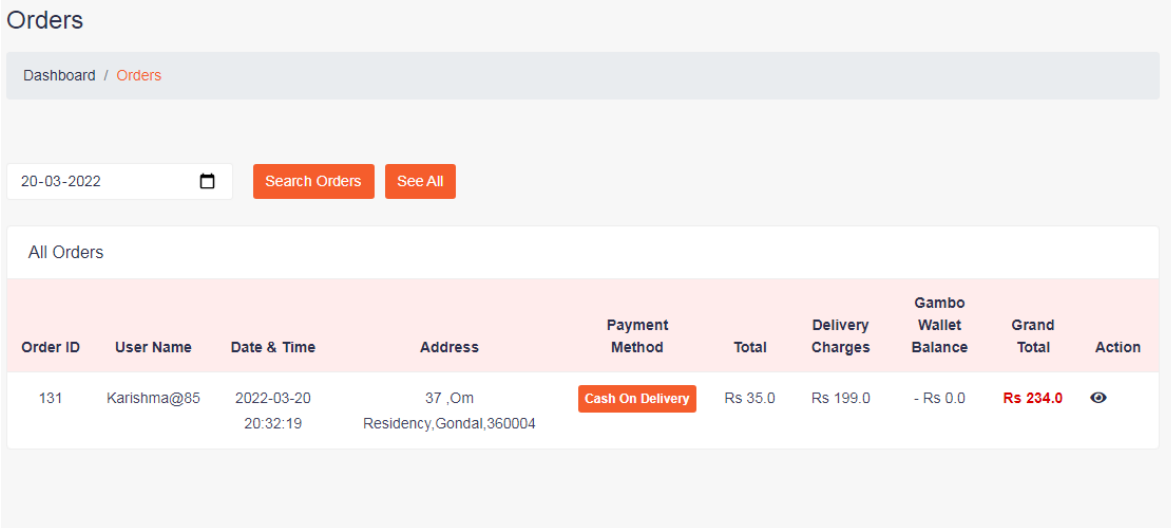
14.1.21 View all customers



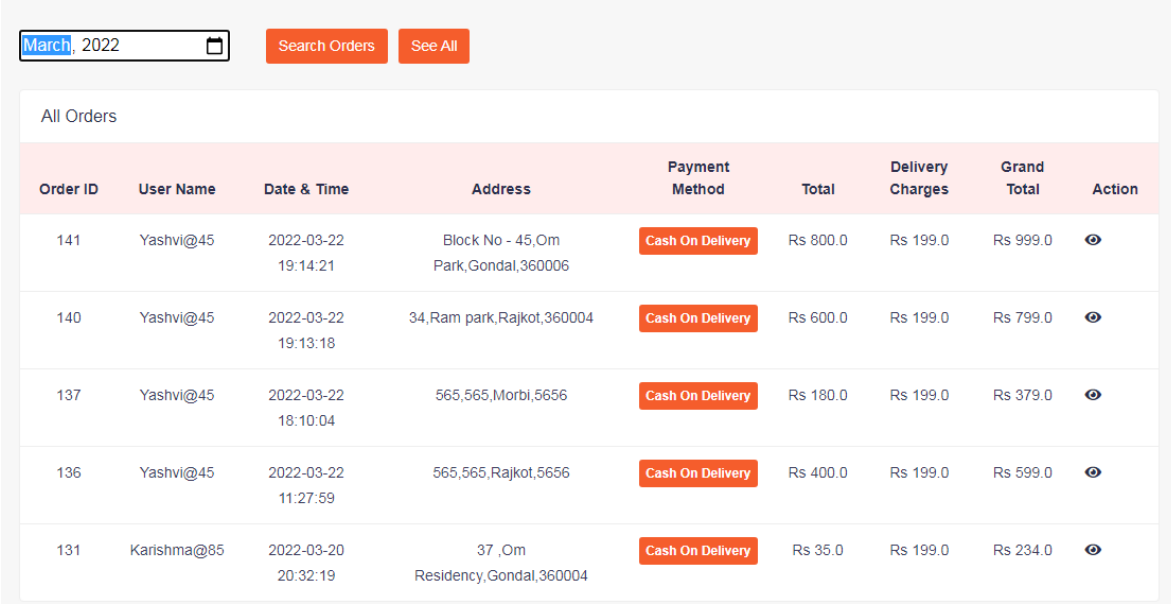
14.1.22 View Customer Details



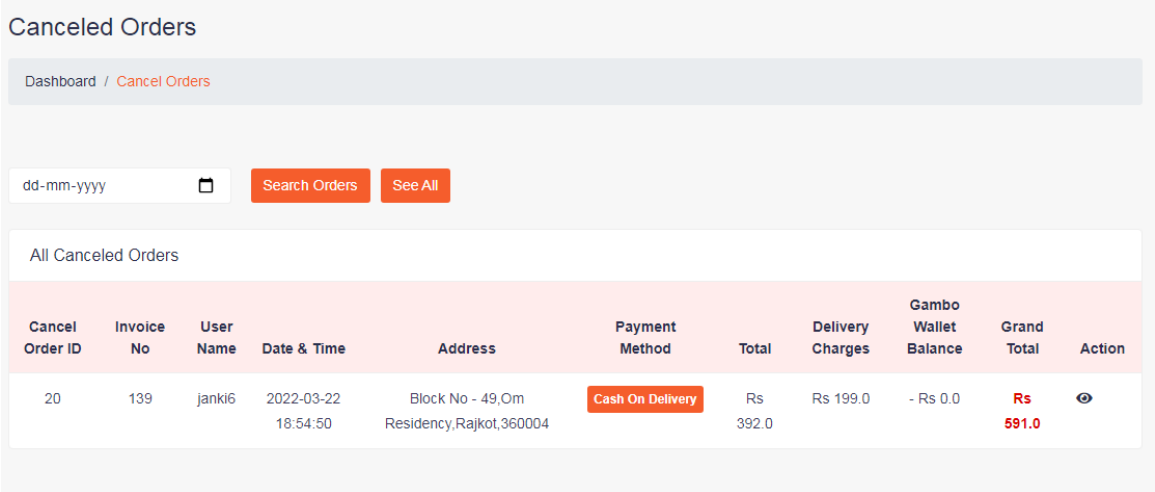
14.1.23 Search order by Date



14.1.24 Report of orders By Month

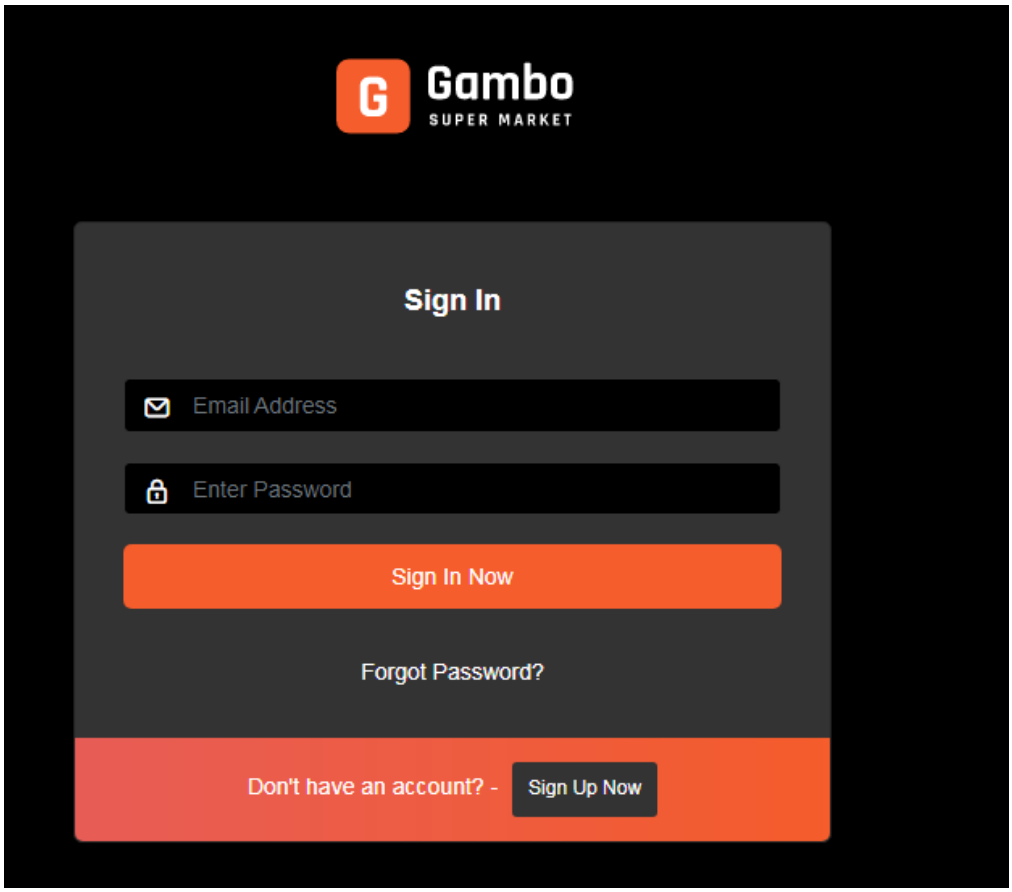


14.1.25 View all Canceled Orders

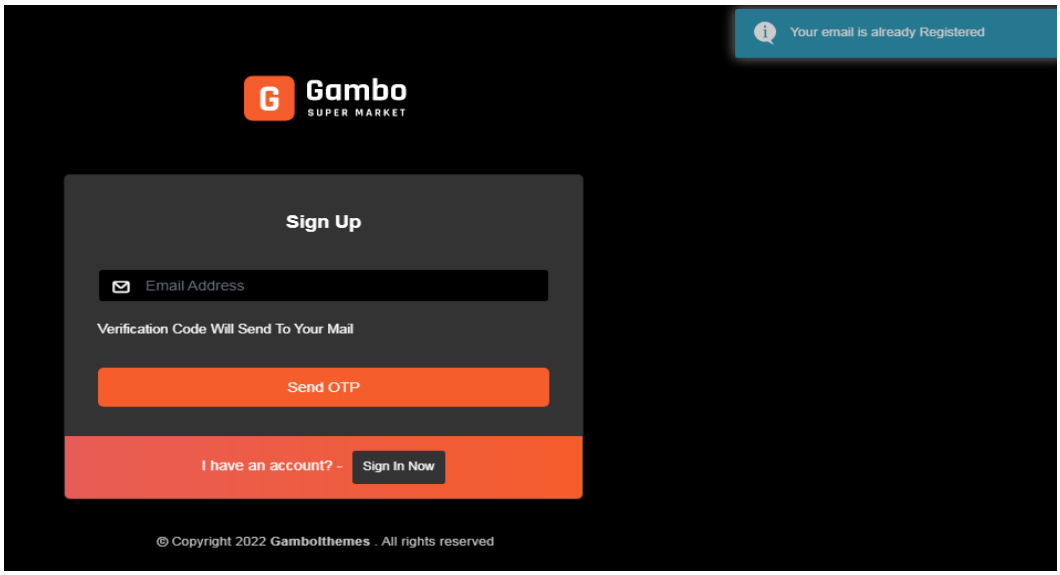


14.2 Client Side

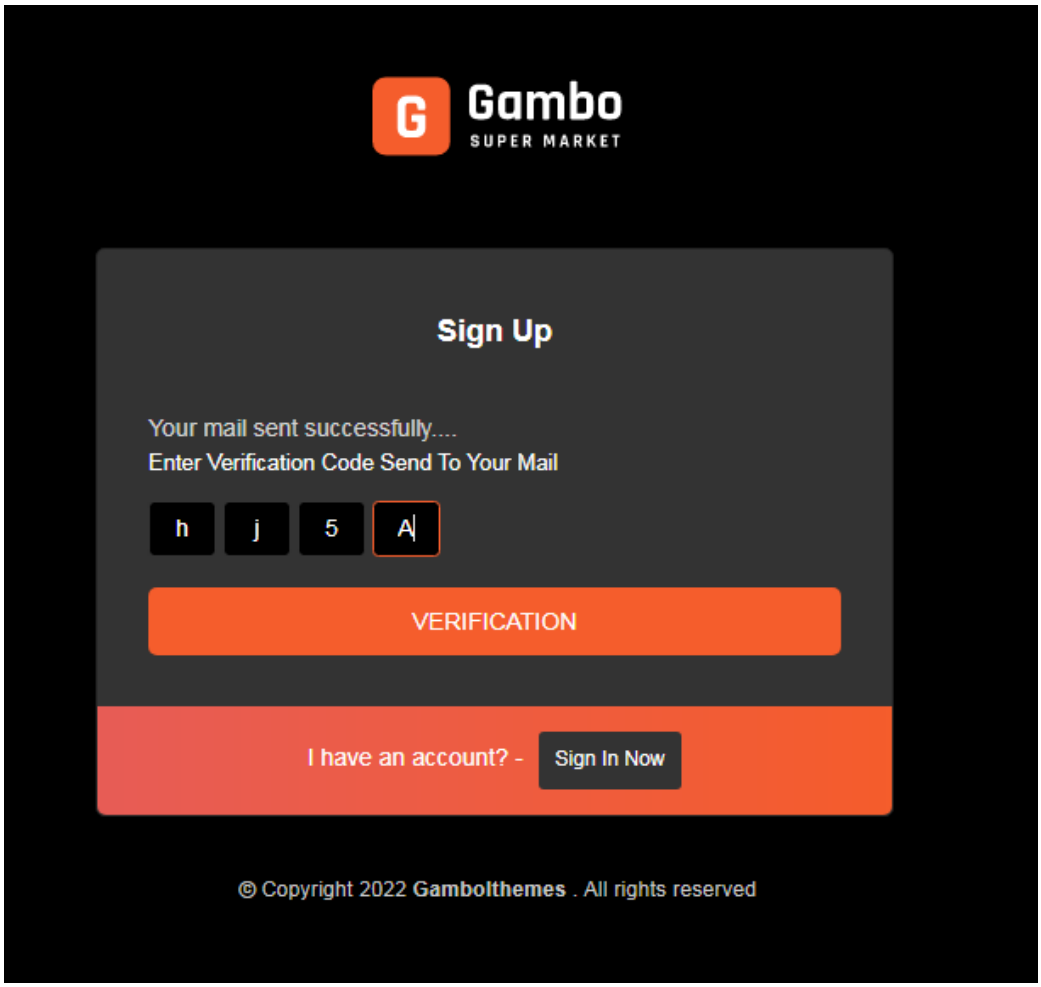
14.2.1 Sign In



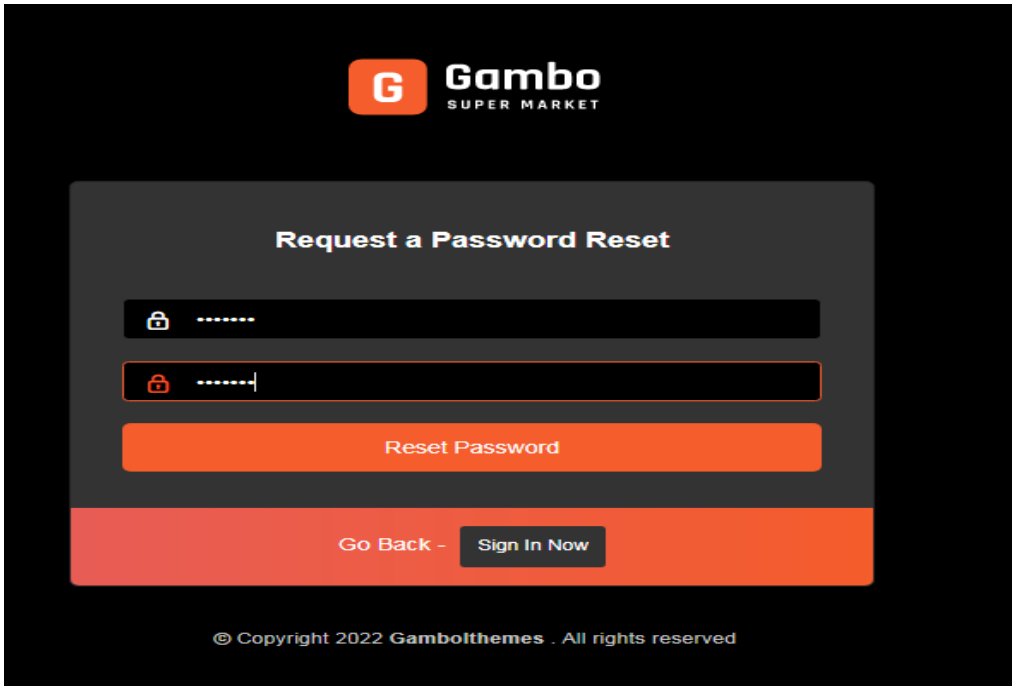
14.2.2 Sign Up(Restriction for Same Email)



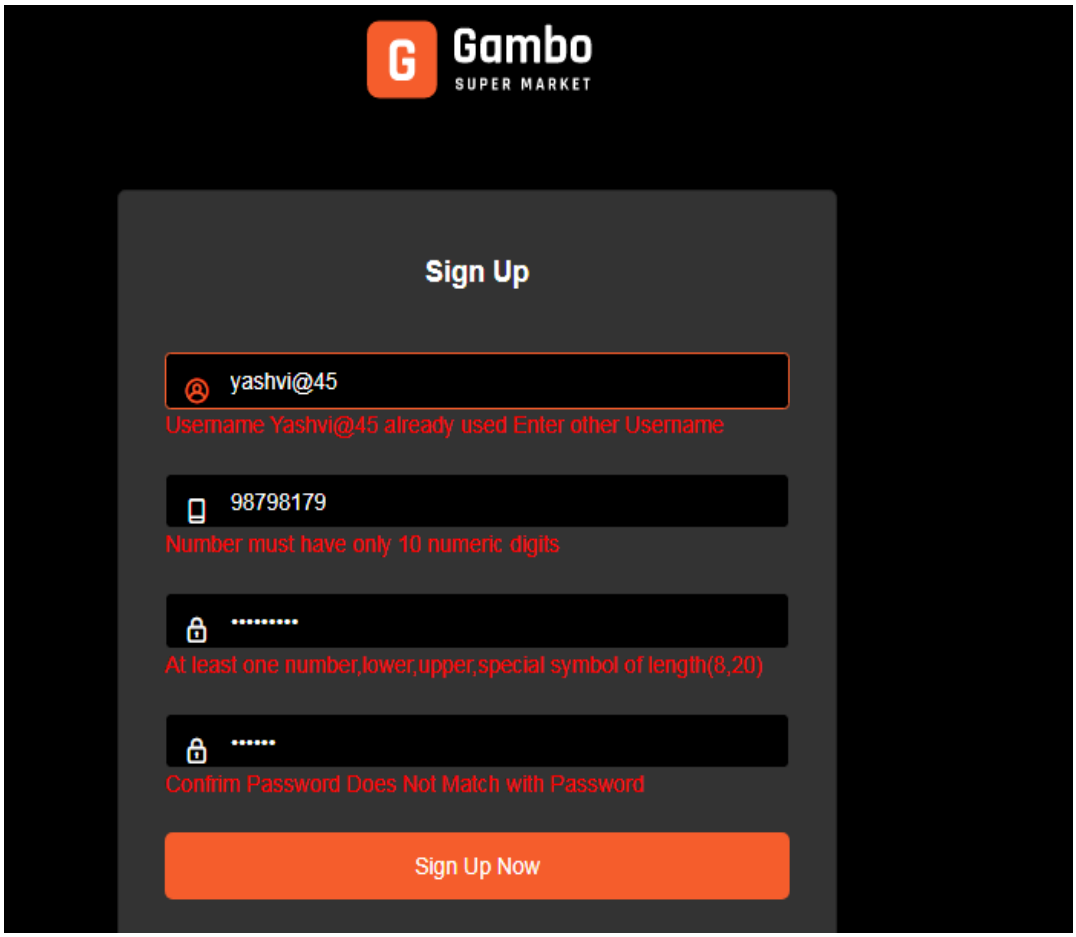
14.2.3 Forgot Password (OTP Verification)



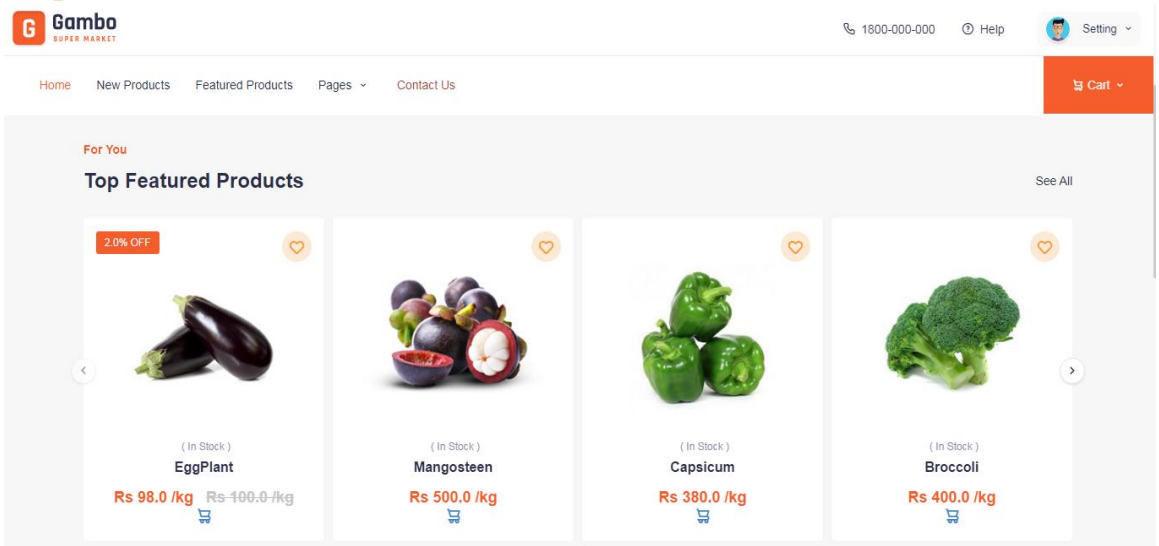
14.2.4 Change Password



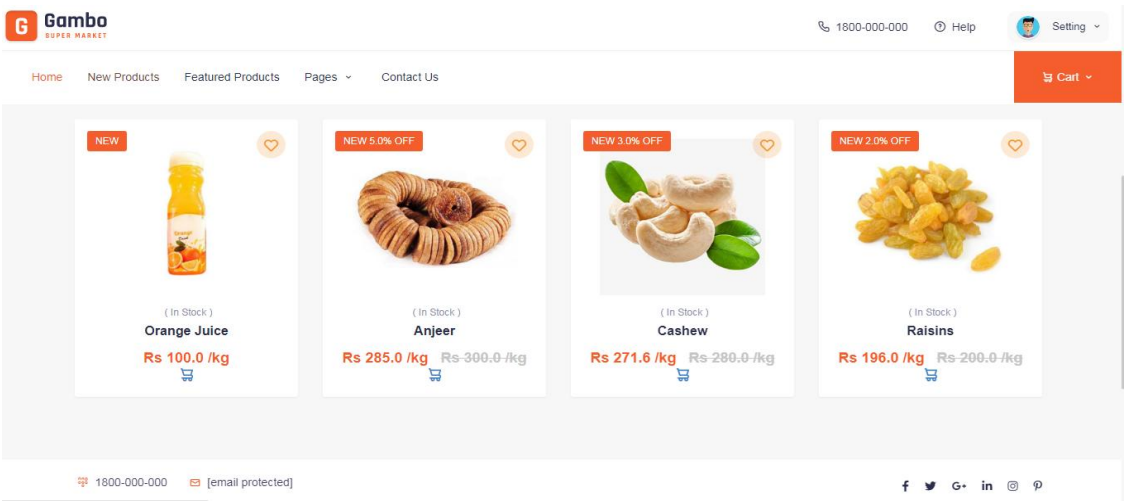
14.2.5 Registration Validations



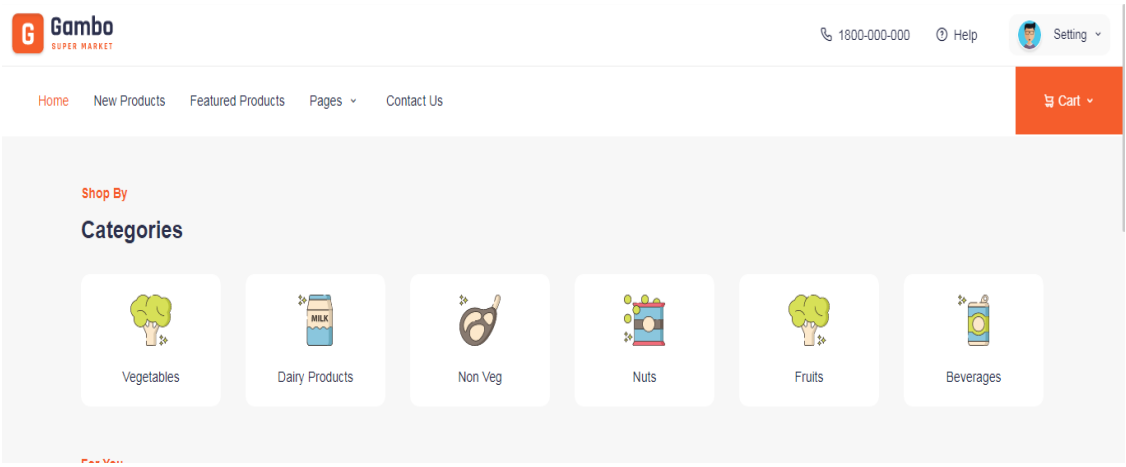
14.2.6 Top Featured Products List



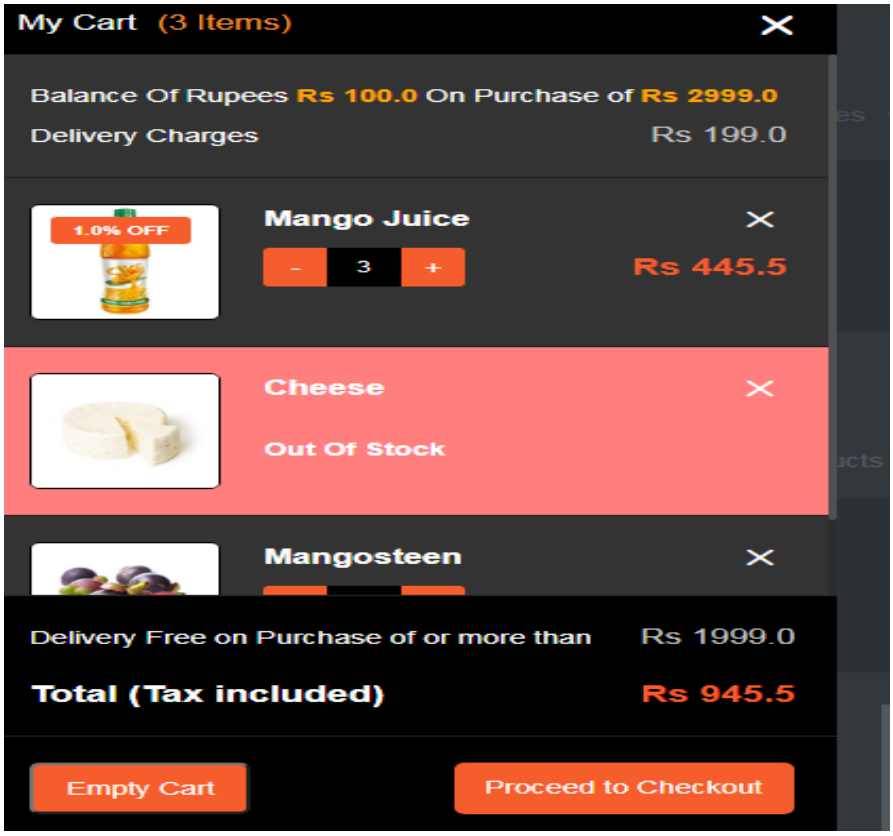
14.2.7 New Launched Products List



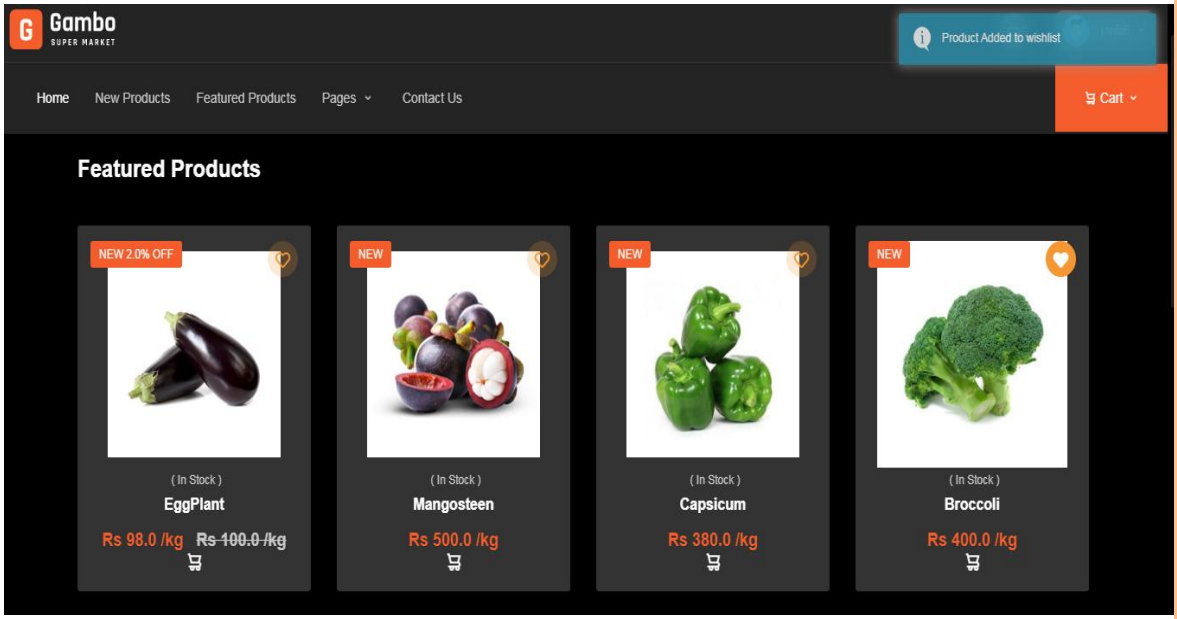
14.2.8 View Products On Basis of Categories



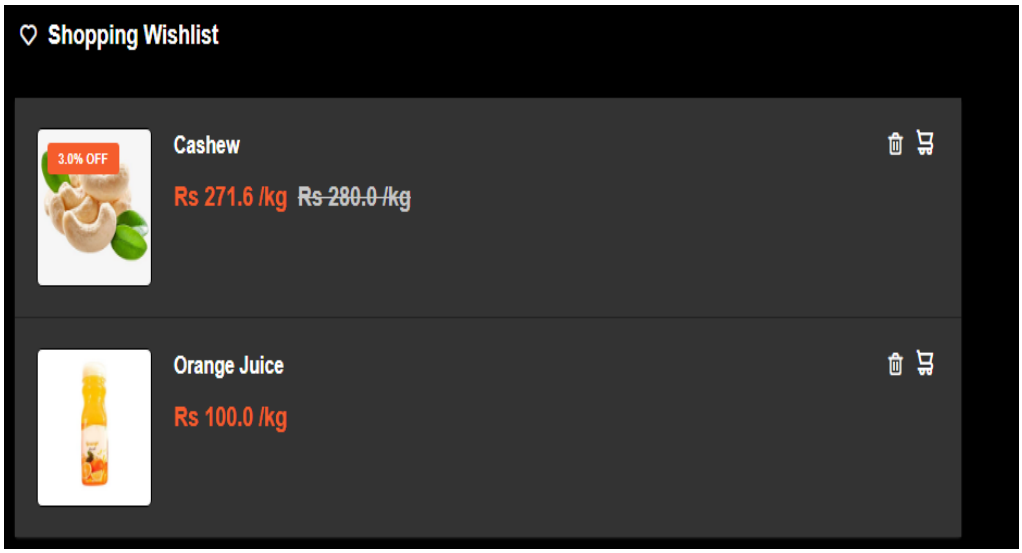
14.2.9 Cart View And Edit



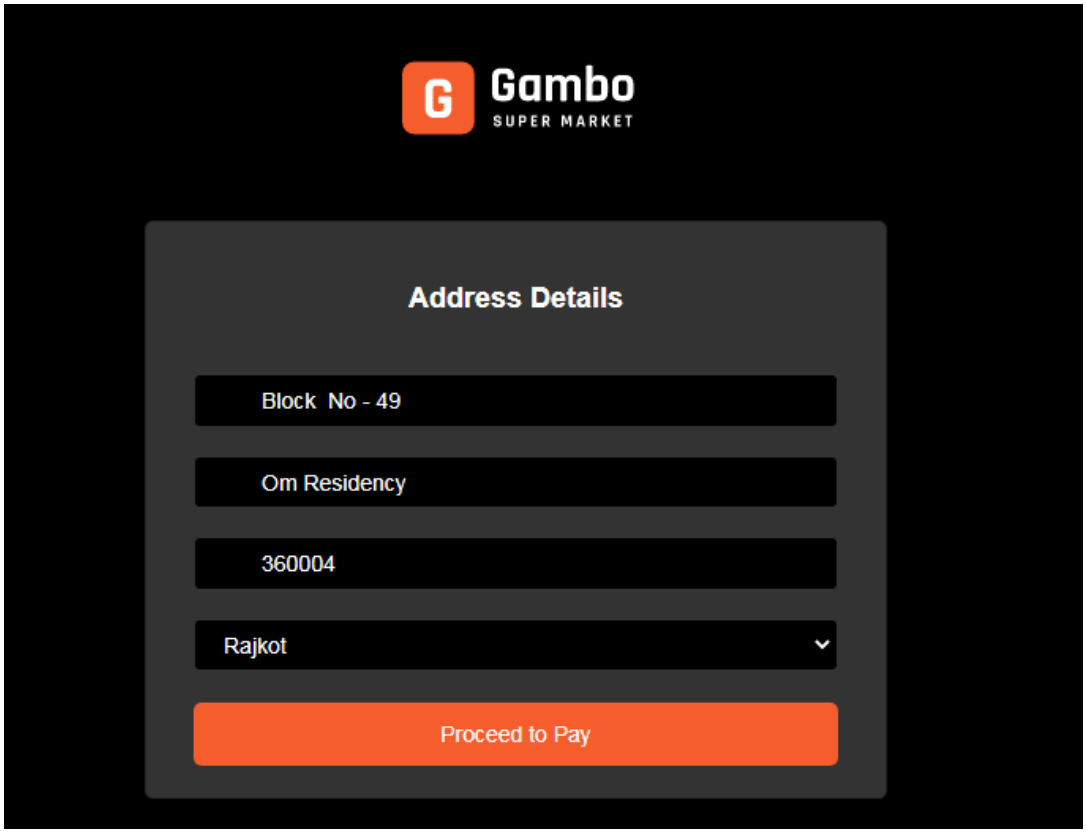
14.2.10 Add Wish list With Ajax and Notification in Toast Message



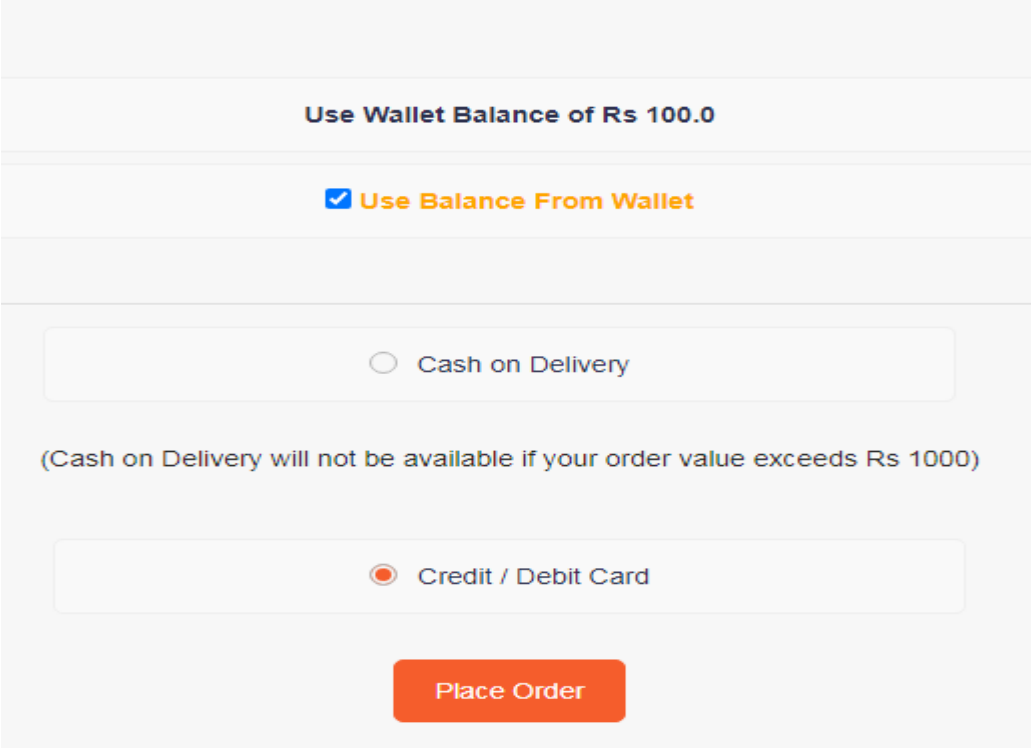
14.2.11 View And Edit Wish List



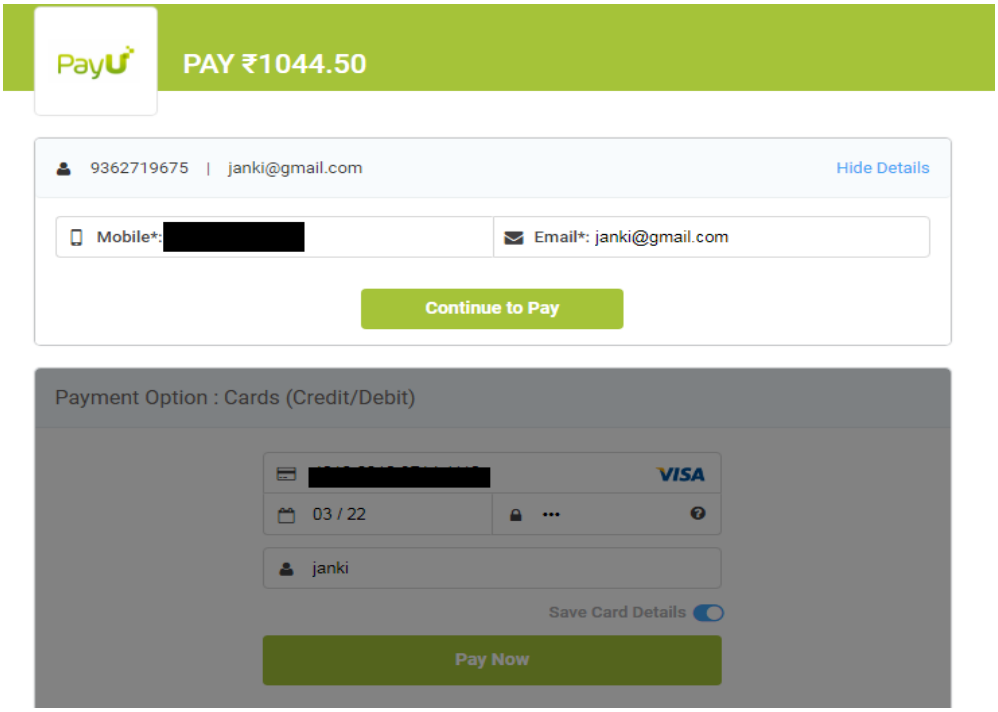
14.2.12 Address / Delivery Details



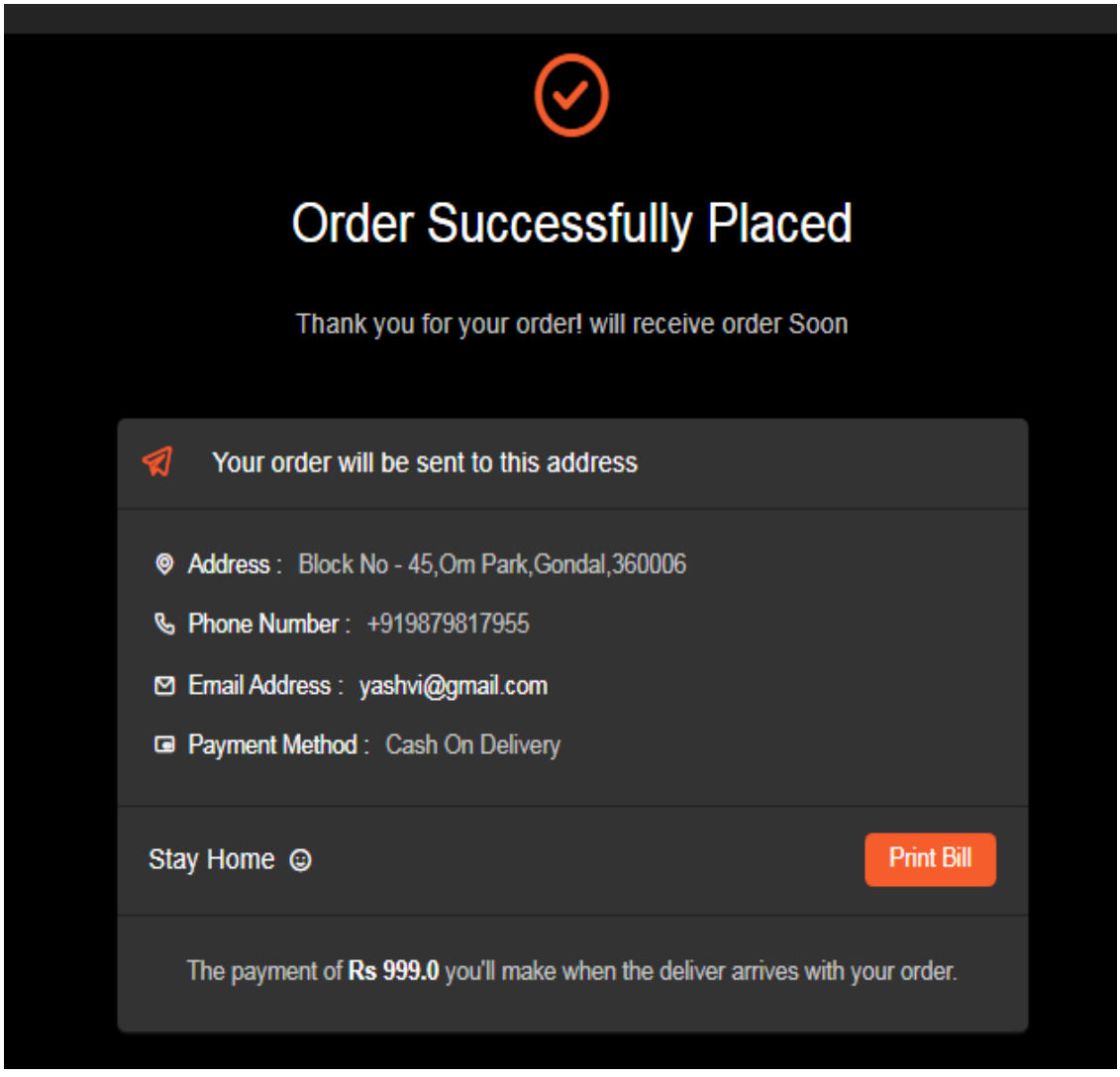
14.2.13 Payment Option (Use Wallet Balance for Purchase)



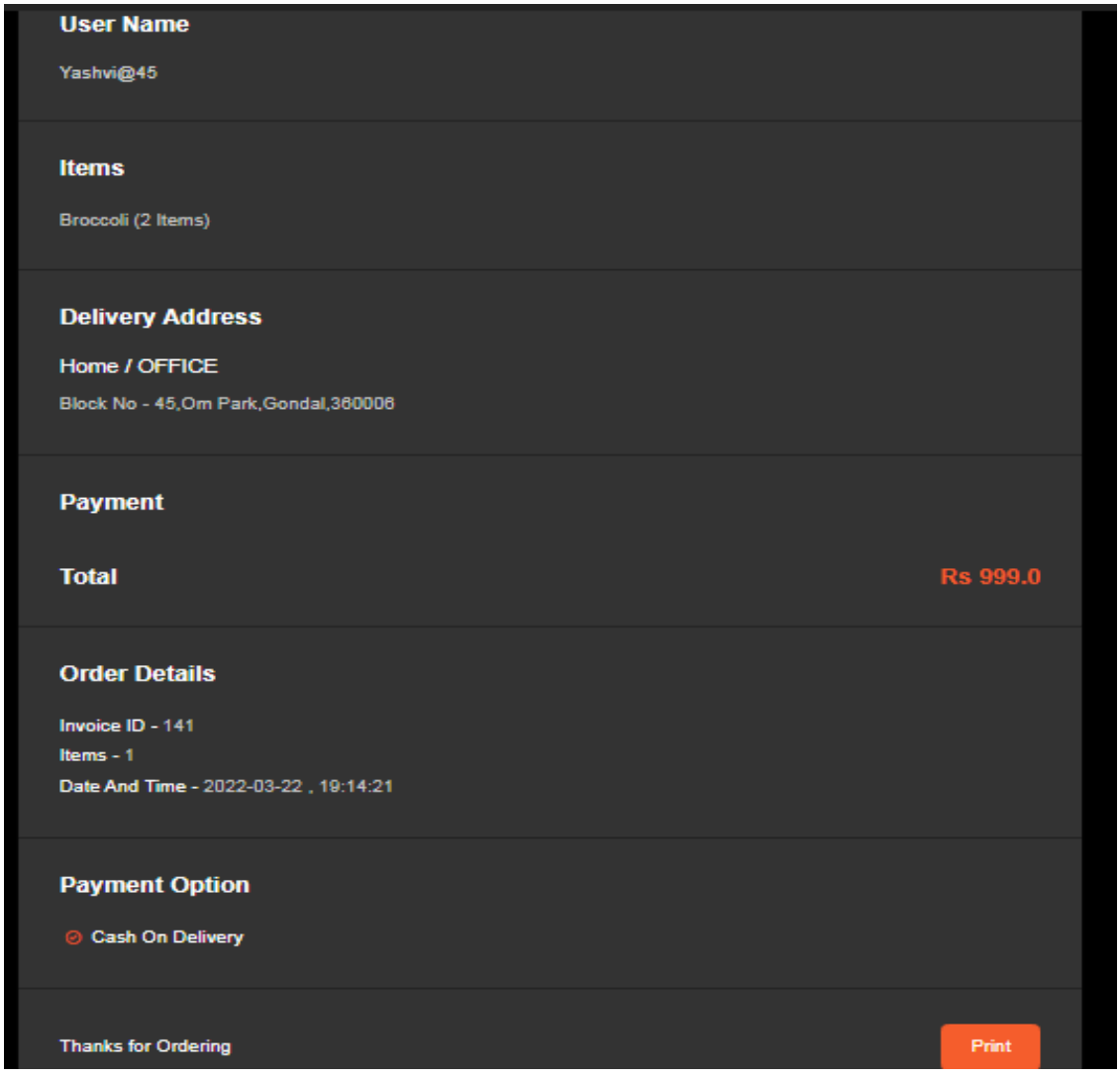
14.2.14 PayU Portal(For Online Payment)[PayU Integration]



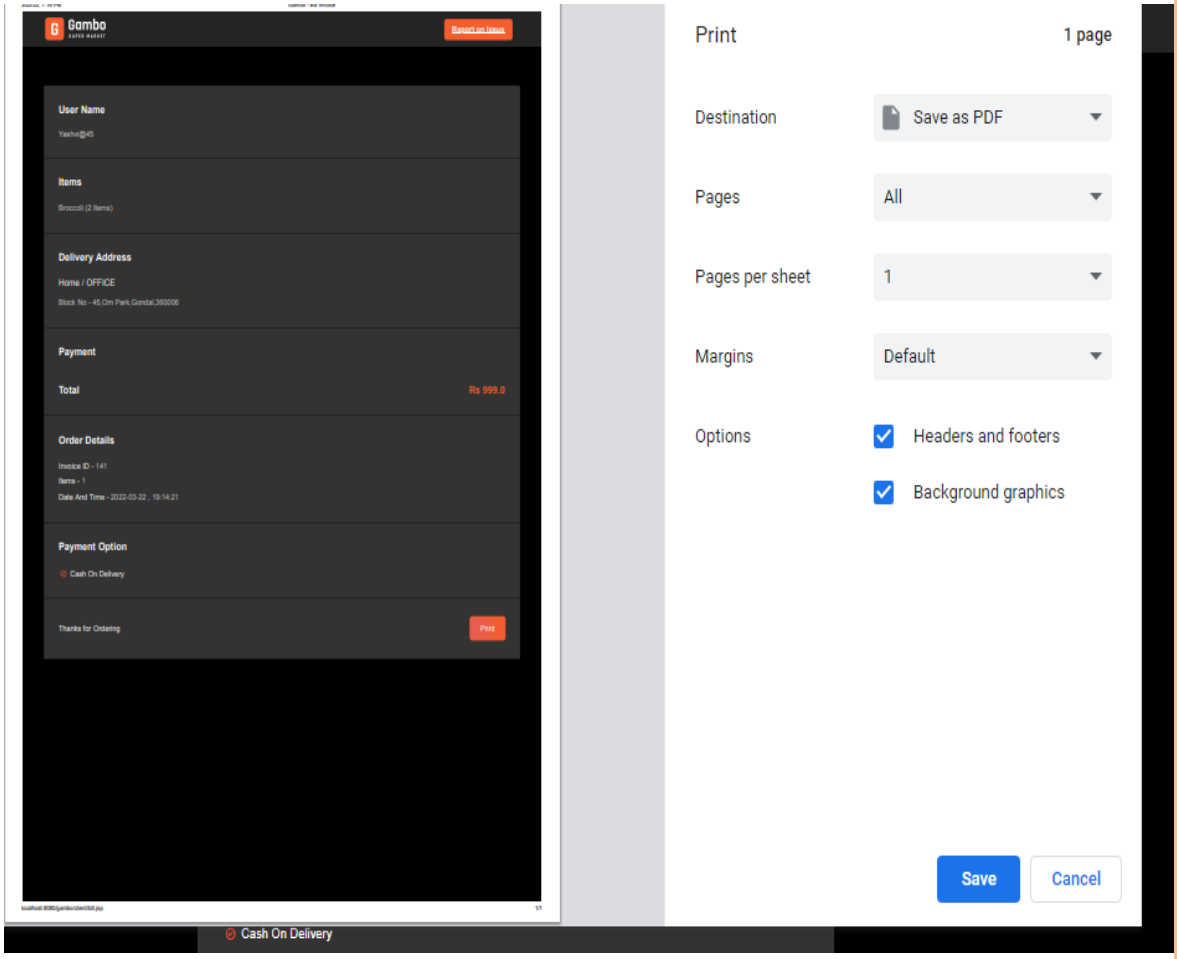
14.2.15 Order Success View



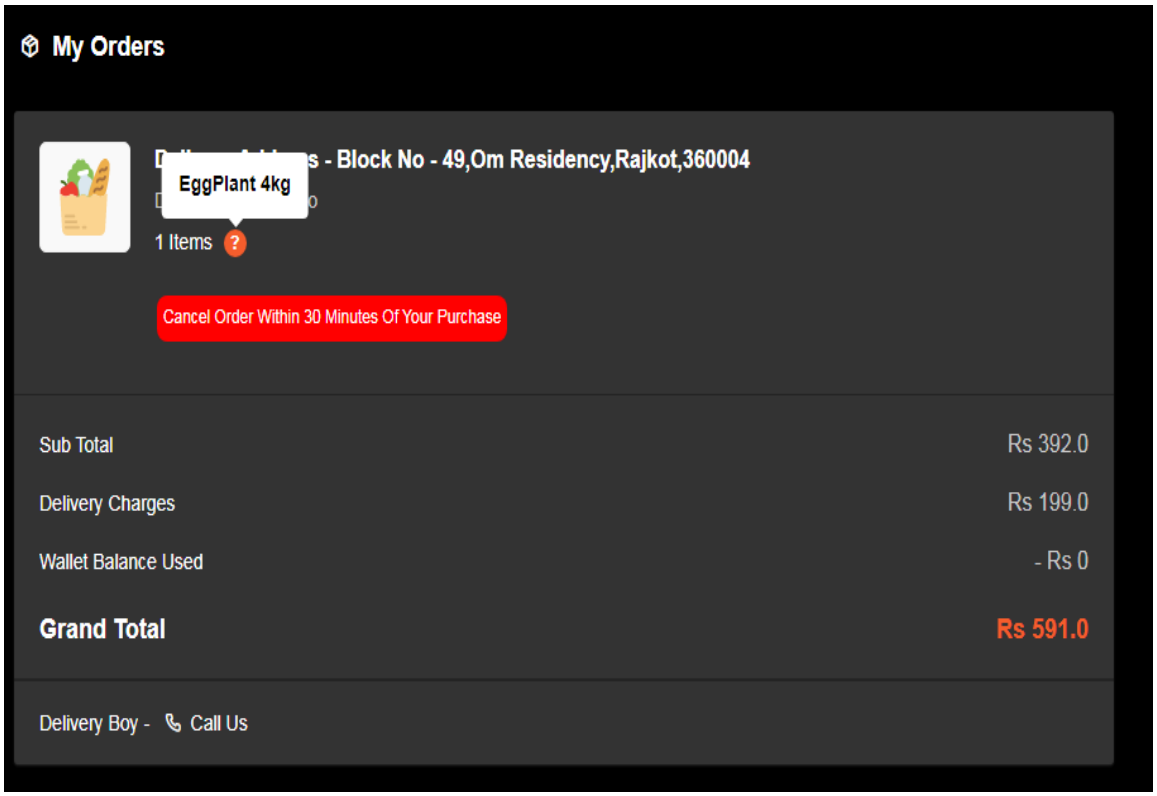
14.2.16 Bill View



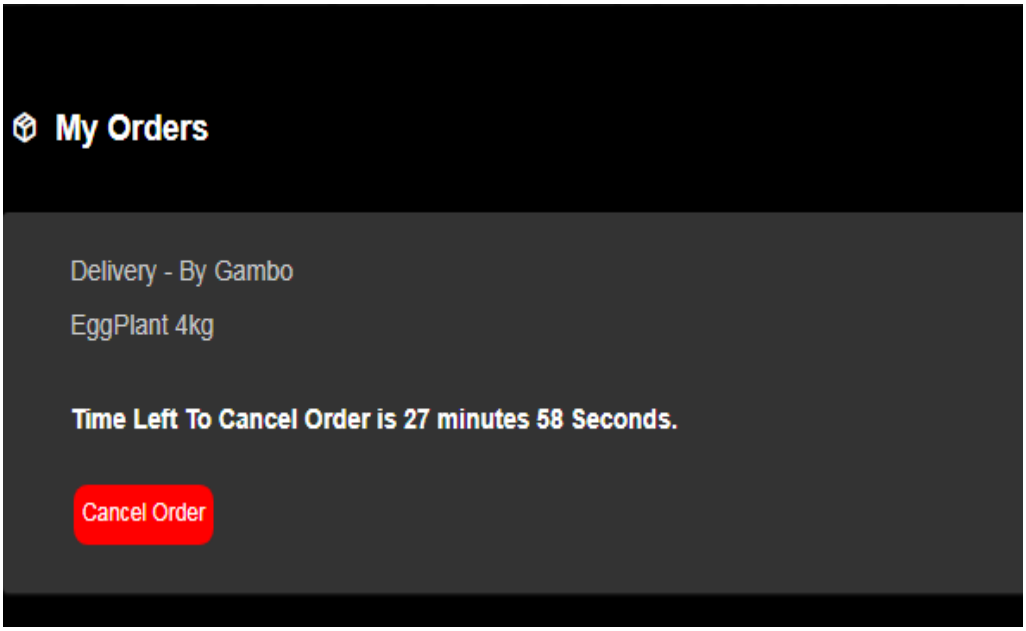
14.2.17 Print Or Download Your Bill



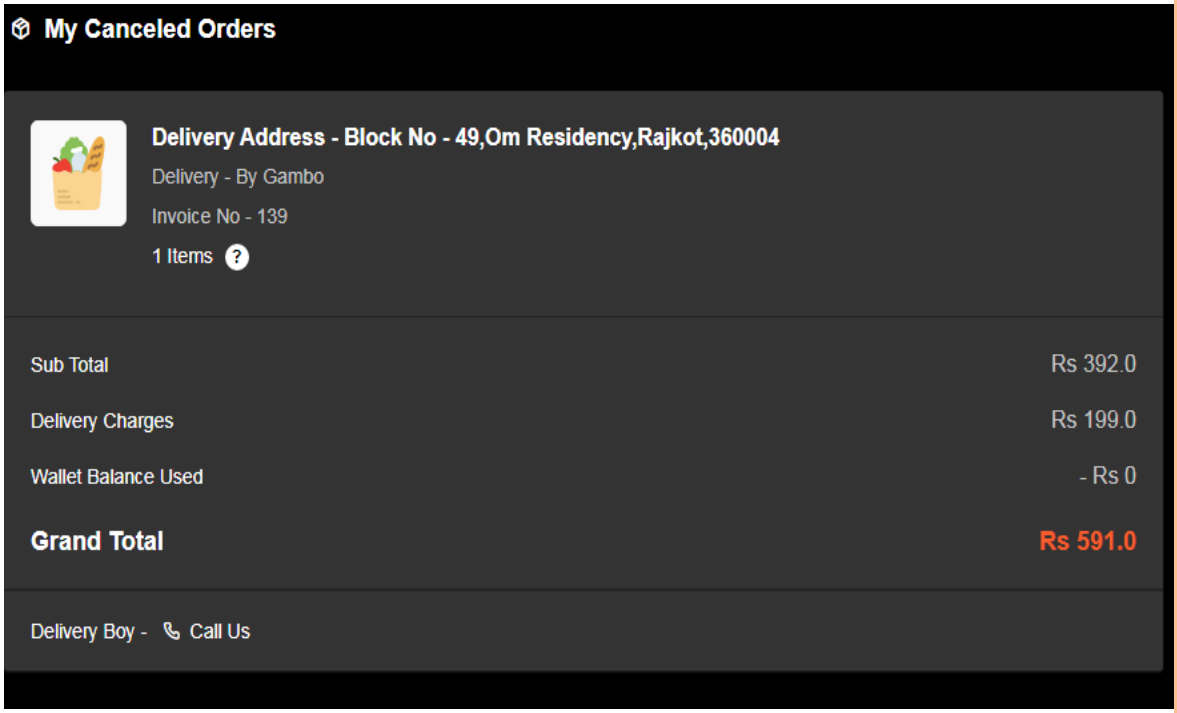
14.2.18 View Order History



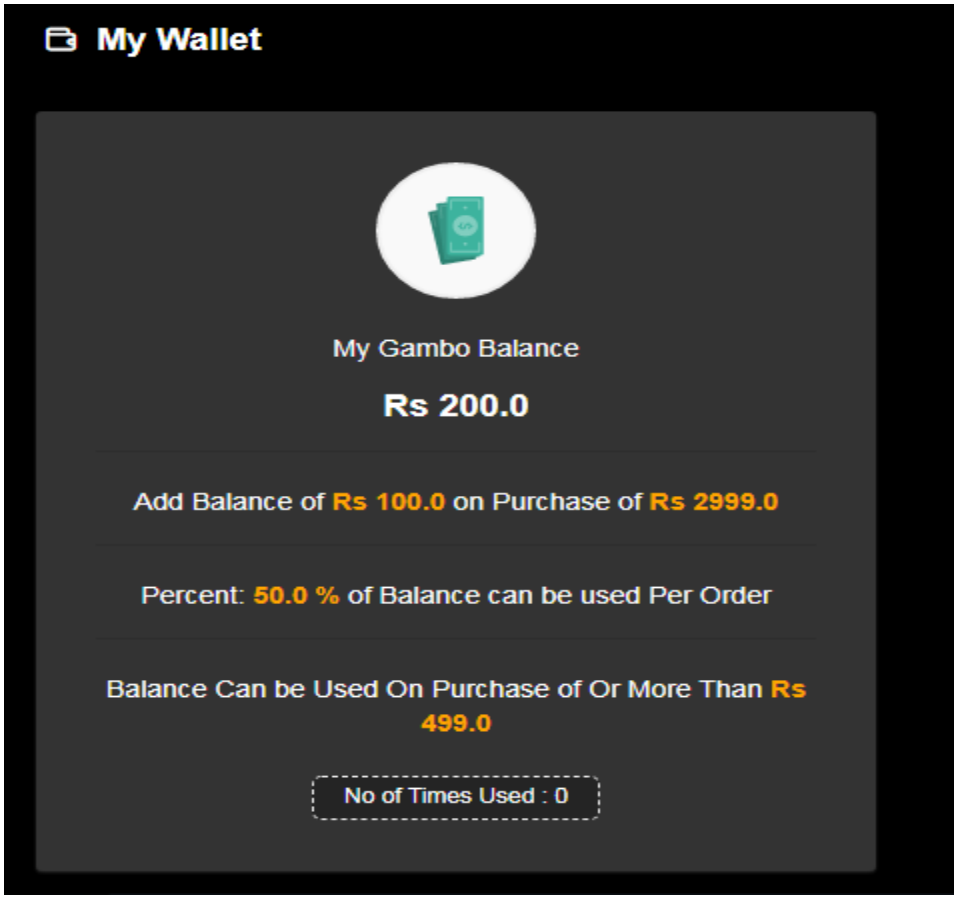
14.2.19 Cancel Your Order Within 30 min of Purchase(With Timer)



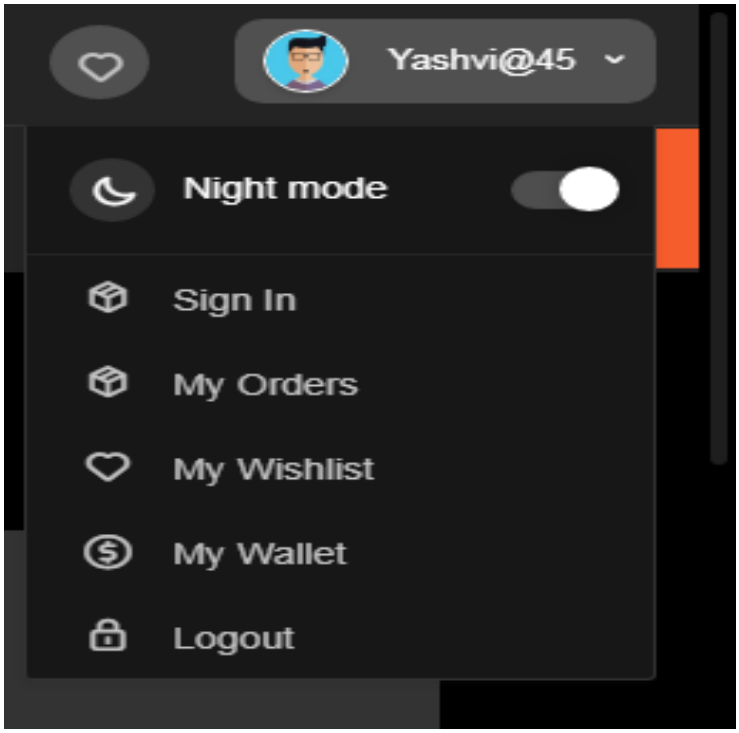
14.2.20 View Your Canceled Order History



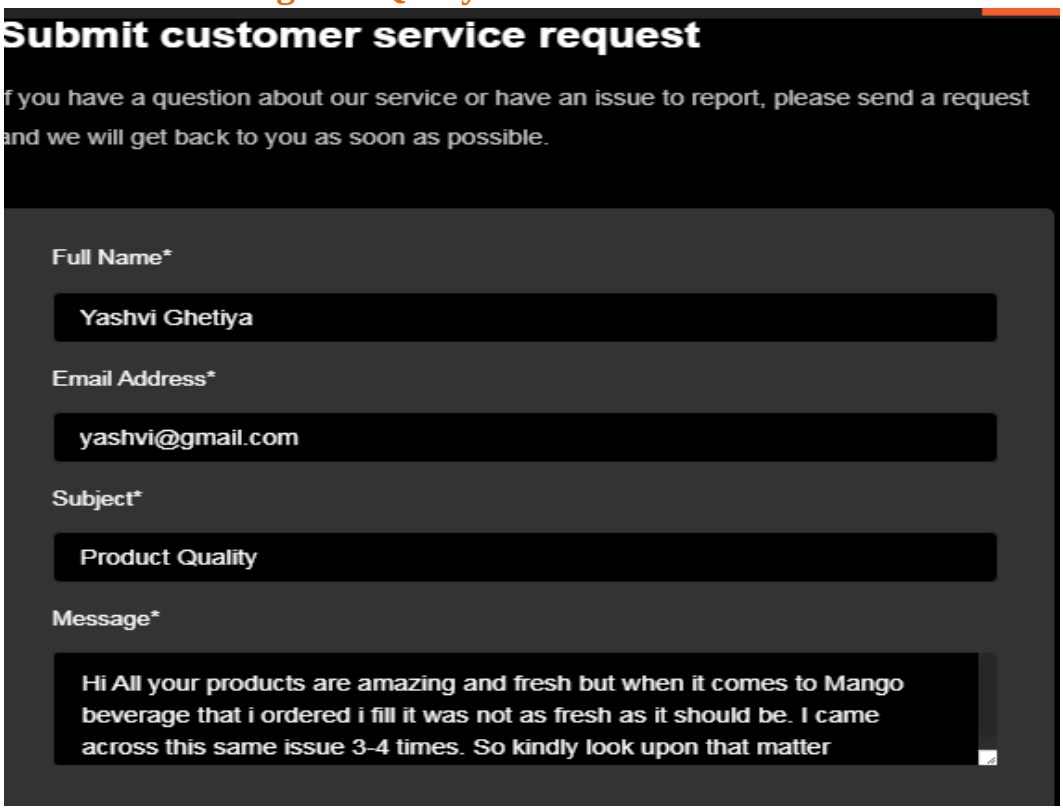
14.2.21 Gambo Wallet Balance View



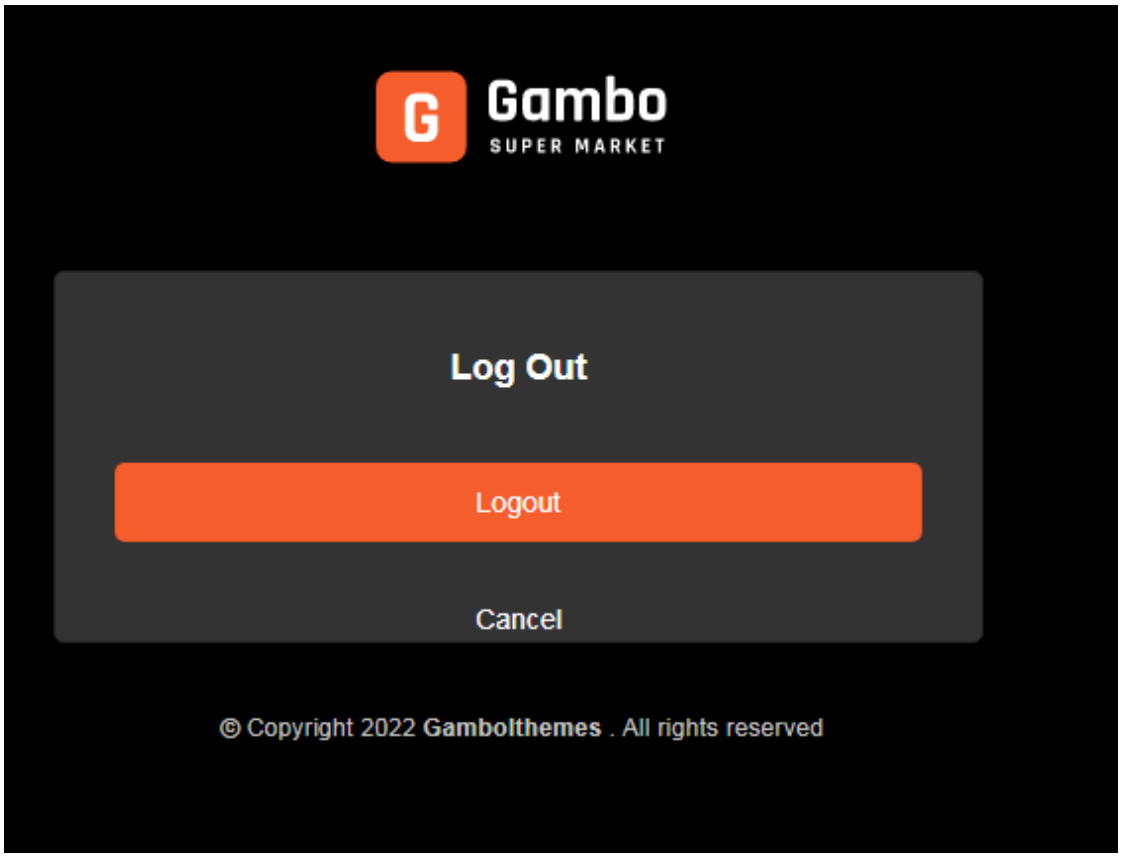
14.2.22 Features Like Night Mode



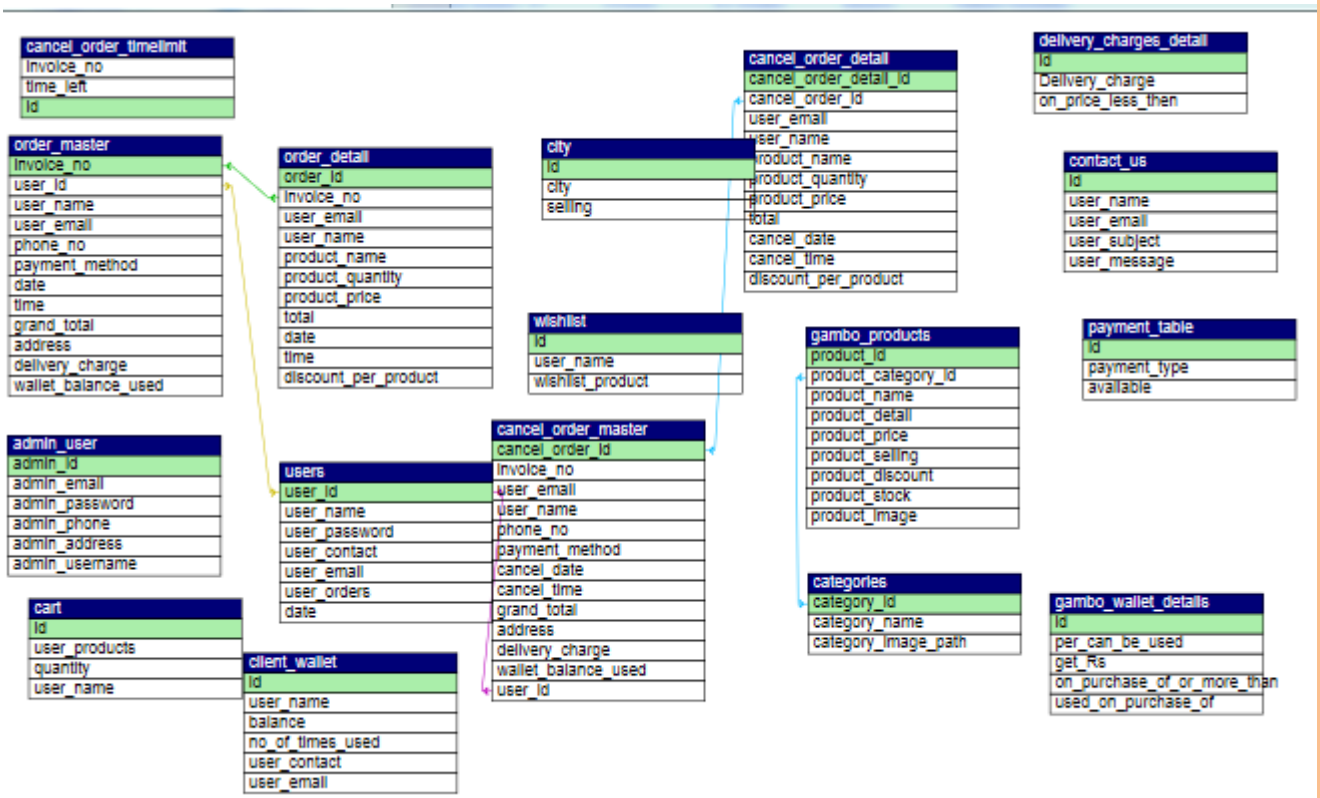
14.2.23 Contact Us Page for Query Or Issue



14.2.24 Logout Page



15. Data Base Design



16. RESULT AND CHALLENGES

The application can be used for any Ecommerce application. It is easy to use, since ituses the GUI provided in the user dialog. User friendly screens are provided. The application is easy to use and interactive making online shopping a recreational activity for users. It has been thoroughly tested and implemented.

16.1 Challenges

Compatibility with browsers like Mozilla Firefox, Internet explorer etc

Using a layered approach in developing the application which would make the application maintainable.

Payment Integration with Payu.

Ajax toolkit controls with little guidance.

The overall idea of doing this project is to get a real time experience. Learn new technologies.

17.DATA DICTIONARY

17.1 Admin Login Table

Name	Type	Collation	Attributes	Null	Default
admin_id	int(11)			No	*None*
admin_email	varchar(50)	utf8mb4_general_ci		No	*None*
admin_password	varchar(50)	utf8mb4_general_ci		No	*None*
admin_phone	varchar(50)	utf8mb4_general_ci		No	*None*
admin_address	varchar(200)	utf8mb4_general_ci		No	*None*
admin_username	varchar(50)	utf8mb4_general_ci		No	*None*

17.2 Cancel Order Details Table

Name	Type	Collation	Attributes	Null	Default
cancel_order_detail_id	int(11)			No	*None*
cancel_order_id	int(11)			No	*None*
user_email	varchar(200)	utf8mb4_general_ci		No	*None*
user_name	varchar(200)	utf8mb4_general_ci		No	*None*
product_name	varchar(200)	utf8mb4_general_ci		No	*None*
product_quantity	int(11)			No	*None*
product_price	double			No	*None*
total	double			No	*None*
cancel_date	date			No	*None*
cancel_time	time			No	*None*
discount_per_product	double			No	*None*

17.3 Cancel Order Master Table

Name	Type	Collation	Attributes	Null	Default
cancel_order_id	int(11)			No	*None*
invoice_no	int(11)			No	*None*
user_email	varchar(200)	utf8mb4_general_ci		No	*None*
user_name	varchar(200)	utf8mb4_general_ci		No	*None*
phone_no	varchar(20)	utf8mb4_general_ci		No	*None*
payment_method	varchar(100)	utf8mb4_general_ci		No	*None*
cancel_date	date			No	*None*
cancel_time	varchar(100)	utf8mb4_general_ci		No	*None*
grand_total	double			No	*None*
address	varchar(2000)	utf8mb4_general_ci		No	*None*
delivery_charge	double			No	*None*
wallet_balance_used	double			No	*None*
user_id	int(11)			No	*None*

17.4 Cancel Order Time Limit Table

Name	Type	Collation	Attributes	Null	Default
invoice_no	int(11)			No	*None*
time_left	varchar(100)	utf8mb4_general_ci		No	*None*
id	int(11)			No	*None*

17.5 Add To Cart Table

Name	Type	Collation	Attributes	Null	Default
id	int(5)			No	*None*
user_products	varchar(5000)	utf8mb4_general_ci		No	*None*
quantity	int(11)			No	1
user_name	varchar(100)	utf8mb4_general_ci		No	*None*

17.6 Category Table

Name	Type	Collation	Attributes	Null	Default
category_id	int(11)			No	*None*
category_name	varchar(100)	utf8mb4_general_ci		No	*None*
category_image_path	varchar(300)	utf8mb4_general_ci		No	*None*

17.7 City Table

Name	Type	Collation	Attributes	Null	Default
id	int(11)			No	*None*
city	varchar(100)	utf8mb4_general_ci		No	*None*
selling	int(11)			No	0

17.8 Client Wallet Table

Name	Type	Collation	Attributes	Null	Default
id	int(11)			No	*None*
user_name	varchar(100)	utf8mb4_general_ci		No	*None*
balance	double			No	*None*
no_of_times_used	int(11)			No	0
user_contact	varchar(100)	utf8mb4_general_ci		No	*None*
user_email	varchar(200)	utf8mb4_general_ci		No	*None*

17.9 Contact Us Table

Name	Type	Collation	Attributes	Null	Default
id	int(3)			No	*None*
user_name	varchar(25)	utf8mb4_general_ci		No	*None*
user_email	varchar(25)	utf8mb4_general_ci		No	*None*
user_subject	varchar(100)	utf8mb4_general_ci		No	*None*
user_message	varchar(200)	utf8mb4_general_ci		No	*None*

17.10 Delivery Details Table

Name	Type	Collation	Attributes	Null	Default
id	int(11)			No	*None*
Delivery_charge	double			No	*None*
on_price_less_then	double			No	*None*

17.11 Product Table

Name	Type	Collation	Attributes	Null	Default
product_id	int(11)			No	*None*
product_category_id	int(11)			No	*None*
product_name	varchar(100)	utf8mb4_general_ci		No	*None*
product_detail	varchar(5000)	utf8mb4_general_ci		No	*None*
product_price	double			No	*None*
product_selling	int(11)			Yes	0
product_discount	double			Yes	0
product_stock	int(11)			No	*None*
product_image	varchar(300)	utf8mb4_general_ci		Yes	*NULL*

17.12 Wallet Details Table

Name	Type	Collation	Attributes	Null	Default
id	int(11)			No	*None*
per_can_be_used	double			No	*None*
get_Rs	double			No	*None*
on_purchase_of_or_more_than	double			No	*None*
used_on_purchase_of	double			No	*None*

17.13 Order Details Table

Name	Type	Collation	Attributes	Null	Default
order_id	int(11)			No	None
invoice_no	int(11)			No	None
user_email	varchar(200)	utf8mb4_general_ci		No	None
user_name	varchar(200)	utf8mb4_general_ci		No	None
product_name	varchar(200)	utf8mb4_general_ci		No	None
product_quantity	int(11)			No	None
product_price	double			No	None
total	double			No	None
date	date			No	None
time	time			No	None
discount_per_product	double			No	None

17.14 Order Master Table

Name	Type	Collation	Attributes	Null	Default
cancel_order_id	int(11)			No	None
invoice_no	int(11)			No	None
user_email	varchar(200)	utf8mb4_general_ci		No	None
user_name	varchar(200)	utf8mb4_general_ci		No	None
phone_no	varchar(20)	utf8mb4_general_ci		No	None
payment_method	varchar(100)	utf8mb4_general_ci		No	None
cancel_date	date			No	None
cancel_time	varchar(100)	utf8mb4_general_ci		No	None
grand_total	double			No	None
address	varchar(2000)	utf8mb4_general_ci		No	None
delivery_charge	double			No	None
wallet_balance_used	double			No	None
user_id	int(11)			No	None

17.15 Payment Details Table

Name	Type	Collation	Attributes	Null	Default
id	int(11)			No	*None*
payment_type	varchar(50)	utf8mb4_general_ci		No	*None*
available	int(11)			No	*None*

17.16 Customer Information Table

Name	Type	Collation	Attributes	Null	Default
user_id	int(5)			No	*None*
user_name	varchar(100)	utf8mb4_general_ci		No	*None*
user_password	varchar(100)	utf8mb4_general_ci		No	*None*
user_contact	varchar(100)	utf8mb4_general_ci		No	*None*
user_email	varchar(100)	utf8mb4_general_ci		No	*None*
user_orders	int(11)			Yes	0
date	date			No	*None*

17.17 Client Wish list Table

Name	Type	Collation	Attributes	Null	Default
id	int(11)			No	*None*
user_name	varchar(100)	utf8mb4_general_ci		No	*None*
balance	double			No	*None*
no_of_times_used	int(11)			No	0
user_contact	varchar(100)	utf8mb4_general_ci		No	*None*
user_email	varchar(200)	utf8mb4_general_ci		No	*None*

18.CONCLUSION

- The ‘Online Shopping’ is designed to provide a web based application that would make searching, viewing and selection of a product easier.
- The user can then view the complete specification of each product.
- They can also view the top featured product products and also contact for query.
- Use of Ajax components would make the application interactive and prevents annoying post backs.
- Saving order history of every client and allowing them to view it.
- Having Gambo Wallet balance for Quick payment
- Cancel Order within 30 minutes of the order purchased

19. LIMITATIONS

Though I tried my best in developing this system but as limitations are mere parts of any systemso are of our system. Some limitations of smart city information are:

- User account verification by mobile SMS is not available in this system
- This application is for the one who owns the small company and has no Merchant Integration.

20. FUTURE SCOPE

- The users could subscribe for price alerts which would enable them to receive messages when price for products fall below a particular level.
- SMS Verification can be used here.
- Existing system has all basic functionalities. Though few more functions such as joining, intersection, Union, minus so that queries can be build of more than one table

21. REFERENCES

- www.w3school.com
- www.javatpoint.com
- www.stackoverflow.com
- www.payu.in
- Few Youtube Videos