# GROCERY CUSTOMER PORTAL

By

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National College of Computer Studies

A Summer Project Report Submitted to

**Faculty of Management, Tribhuvan University**

In partial fulfillment of the requirements for the degree of

**Bachelor of Information Management (BIM)**

Paknajol, Kathmandu

4th September,2023

## STUDENT DECLARATION

This is to certify that I have completed the Summer Project entitled "Grocery Customer Portal" under the guidance of **"Mr. Umesh Maharjan"** in the partial fulfillment of the requirements for the requirements for the degree of **Bachelor of Information Management (BIM)** at Faculty of Management (BIM) at Faculty of Management, Tribhuvan University. This is my original work and I have not submitted it earlier elsewhere.

Signature:

Name: Rushma Bajracharya

Date: 4th September,2023

## CERTIFICATE FROM THE SUPERVISIOR

This is to certify that the summer project entitled “grocery Customer Portal” is an academic work done by “Rushma Bajracharya” submitted in the partial fulfillment of the requirements for the degree of Bachelor of Information Management (BIM) at Faculty of Management, Tribhuvan University under my guidance and supervision. To the best of my knowledge, the information presented by her in the summer project report has not been submitted earlier.

_____

Signature of the Supervisor

Name: Mr. Umesh Maharjan

Designation: Supervisor

Date: 4th September,2023

## ACKNOWLEDGEMENT

This Summer Project entitled “Grocery Customer Portal” under the guidance of “Mr. Umesh Maharjan” is prepared in partial fulfillment of the requirements for the degree of Bachelor of Information Management at Faculty of Management, Tribhuvan University.

First and foremost, I am grateful to National College Of Computer Studies for providing me with the necessary information and support throughout the project.

I would like to extend my heartfelt appreciation to Mr. Umesh Maharjan for his invaluable guidance, comments, and suggestions throughout the course of this summer project. His motivation and support have been instrumental in driving me to work harder and achieve better results.

I would also like to thank Ramechhap Gautam Wholesale for giving me the opportunity to conduct my study and create this report. Their cooperation and assistance were crucial in gathering the required data and conducting the project effectively.

Finally, I would like to thank all the individuals who were directly or indirectly involved in this project.

Rushma Bajracharya

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# EXECUTIVE SUMMARY

The faculty of management, Tribhuvan University has introduced a Summer Project for students of Bachelor of Information Management (BIM) sixth semester as an essential requirement for graduation. This is a Summer Project report prepared on the software, "Grocery Customer Portal" which is a web-based software made for "Ramechhap Gautam Wholesale", a grocery shop in Chamati, Kathmandu. The aim of the project is to identify the problems faced by the organization and develop the solution to solve the problem. The entire report is divided into three sections.

The first section "Introduction" consists of introduction about the report, the project topic and the organization itself. It contains the issues faced by the organization, data collection and the objectives to achieve.

The second section "Task and Activities" presents a detailed analysis. The collected data and information are processed and analyzed and given a software solution to the organization's problems. The software is developed using modelling tools such as UML, use case, ER, sequence and class diagrams.

The third section "discussion and conclusion" summarizes the key findings and conclusions drawn from the entire analysis, in order to meet the specified objectives.

The system is built using Java Servlets, JSP, and JDBC technologies, and is accessible through a web browser, offering convenience and flexibility to both store owners and customers. Finally, it is recommended that the organization to effectively move into the world of internet.

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## ABBREVIATIONS

BIM: Bachelor of Information Management

CSS: Cascading Style Sheet

ERD: Entity Relationship Diagram

HTML: Hypertext Markup Language

NCCS: National College of Computer Studies

NFR: Non Functional Requirements

TU: Tribhuvan University

UML: Unified Modeling Language

XAMPP: acronym for X (any OS), Apache (Web server), MySQL (Database), PHP/PERL.

# CHAPTER 1
# INTRODUCTION

## 1.1 Background

This summer project is initiated by Faculty of Management, Tribhuvan University for the students of Bachelor in Information Management (BIM) sixth semester as an essential requirement for graduation. This project aims to enable students to study an organization or a unit of organization, analyze their problems and create a software application as a solution to their problems. It allows students to reflect and integrate their learning over the five semesters of study in this report. This report is prepared for the Summer Project entitled "Grocery Customer Portal". The shop relies on a manual record keeping system. Even though new technology is being introduced every day, people have not really been accepting the flexibility of those systems. In this report, the pattern of usage of the system is studied.

## 1.2 Introduction to Organization

"Ramechhap Gautam Wholesale" is a small grocery shop located in Chamati, Kathmandu that has been run by Mr. Ramit Gautam, Mrs. Asmita Gautam and Mr. Ranjit Gautam for the past two years. The shop offers fresh fruits, vegetables and dairy products at reasonable prices to its customers.

One of the shop's distinguishing features is its credit facility policy, which they exclusively offer to their regular and loyal customers. The shop keeps a record of the purchases made by each customer throughout the month, and the customer can pay for their accumulated purchases at the end of the month.

This policy reflects the trust and relationship that the shop has built with its customers over time. This approach has helped the shop to build a strong and loyal customer base. The shop sources its products from reliable and trusted suppliers, ensuring that its customers receive the best quality products.

Overall, the shop's focus on building strong relationships with its customers has helped it to become a trusted and popular destination for grocery shopping in the Chamati area.

## 1.3 Current Situation of the Organization

"Ramechhap Gautam Wholesale" is currently operating smoothly, providing customers with fresh fruits, vegetables and dairy products at affordable prices. The shop has a good flow of customers, indicating a positive response from the local community.

However, the owner of the shop is manually maintaining a record of each customer and purchases made by them throughout a month in a notebook. This record keeping method is limited to the owner only, and customers are unable to access their purchase record. Therefore, customers have to maintain their own records manually, which can lead to discrepancies between their records and the owner's records.

## 1.4 Issues/Problems in the Organization

Issues and problems faced by the customer and shop are as follows:

- The grocery shop owner is manually keeping records of customer purchases in a notebook.
- The records are inaccessible to customers, which means they cannot access their purchase history.
- Customers have to maintain their own records manually, which can lead to discrepancies between their records and the owner's records.

## 1.5 Objectives

Some objectives of the system are:

- To enhance transparency and convenience for customers by providing them with a user-friendly interface that provides customers with access to their monthly purchase record and timely notices of any changes in product prices or other relevant information,
- To enhance customer satisfaction by facilitating online payment and providing their payment details,
- To enable the admin to manage payment status.

## 1.6 Methodology/Procedures Adopted for Writing the Report

There are various methods which can be used to obtain the required information about a particular research topic. Research methodology includes research design, approach, sample size, sampling techniques, sampling criteria, description of tools, etc. which are then used to analyze and generate findings on the research topic.

The system utilizes the incremental development model, also known as the interactive or evolutionary model, for its software development process. This involves the initial development of the product, which is then presented to users for review and feedback. Based on the feedback, the product is modified until the customers are satisfied with the final result.

### 1.6.1 Project Framework

The framework of this project can be described as below:

- An interview was conducted to understand the process of recording detailed information of customers and their monthly purchases.
- The information obtained from the interview was analyzed and UML diagrams were created.
- Conclusions were drawn based on the analysis of the diagrams.

The entire report is divided into three sections:

- Introduction
- Tasks and Activities Performed
- Conclusion

The first section "Introduction" consists of introduction about the report, the project topic and the organization itself. It contains the issues faced by the organization, and the objectives to achieve.

The second section "Task and Activities" consists of all the analysis performed. The data and information collected are processed and analyzed and given a software solution to the organization's problems.

The third section "discussion and conclusion" consists of conclusions drawn from the entire analysis, in order to meet the specified objectives.

### 1.6.2 Data and Information Collection

The data and information for this report were collected very carefully using two methods.

**i. Primary Data Collection Method**

Primary data is data that is collected by a researcher from first-hand sources, using methods like surveys, interviews, or experiments. For this project, relevant data was collected directly from primary sources, with the specific aim of gaining insights into the organization's record-keeping system. The primary data was obtained through a combination of interviews and observations, which greatly aided in understanding the system. The main sources of primary data were interviews and observations.

- **Interview**

  The information was collected through a direct personal interview with the owner of the shop, where I personally visited and met the owner to gather the required information for the development of the system. The major finding from the interview was that the owner is open to the idea of a digital record-keeping system, where customers can access their monthly purchase history.

- **Observation**

  The activities on the organization's premises were observed and analyzed accordingly. As a regular customer of the shop, I personally faced various problems due to the manual record-keeping system, which made me a valuable asset in utilizing my observational skills. So, observation of the organization was a helpful tool to collect the required information for the development of the system.

**ii. Secondary data Collection Method**

In addition to primary data, secondary data were also utilized in this project. Secondary data refer to information that has already been collected by someone else and has undergone statistical processes. These data are typically obtained from published or unpublished sources, rather than being originally collected. The secondary data were collected through various websites on the internet. This helped in identifying potential solutions that could be incorporated into the software to meet the organization's needs.

- **Internet**

  The internet is a global network that facilitates the exchange of information. In this project, the secondary data were obtained by accessing various websites on the internet.

### 1.6.3 Tools Used

For the software development, different tools and languages are used:

- Diagrams: draw.io
- Frontend: HTML, CSS
- Backend: Java, JSP, Servlet, MYSQL for Database
- Server Implementation: XAMPP
- IDE: Eclipse

# CHAPTER 2
# TASK AND ACTIVITIES PERFORMED

## 2.1 Problem Analysis

Ramechhap Gautam Wholesale is currently using a manual system to record customer purchases on a monthly basis, which is inaccessible to customers. This system requires customers to rely on the owner's records or maintain their own records, which can lead to discrepancies between owner's record and customer's record due to various reasons, such as customers being unaware of price changes or forgetting to record certain items. As a result, there is a need for a more accessible and efficient system for recording and accessing purchase history.

## 2.2 Analysis of Possible Solutions

To address the challenges faced by the grocery shop, a potential solution could involve the following:

- Implementation of a digital record-keeping system
- Providing the owner with an easy-to-use interface for managing customer accounts, monthly purchases of each customer, notice management, and payment
- Creating an online platform for customers to access their monthly purchase history, eliminating the need for them to maintain separate records and promoting transparency and convenience
- Developing an online platform for the owner to post notices informing customers about any changes in product prices or other relevant information.

## 2.3 Requirement Specification

Requirements are the constraints, demands, necessities, needs, or parameters of especially the users that must be met or satisfied. Requirements of the system are the description of what the system should do, the service the system provides and the constraints on each operation. These requirements can be the basis for a bid of contract or the contract itself. Hence, requirements must be open to interpretation as well as defined in detail. They can be categorized into two.

### 2.3.1 Functional Requirements

Functional Requirements of the system depend on the type of software being developed. It is a high-level statement of what the system should do. To ensure that the system meets the requirements of the grocery shop, the following functional requirements should be considered:

- Registration: Admin should be able to register new customers by creating a profile with their username, password, and personal details.
- Login: Both admin and customers should be able to log in to access the system. Customers should log in using the username and password provided by the admin.
- Customer Management: Admin should be able to add, delete, view, and edit customer details as needed.
- Purchase Management: Admin should be able to add, view, and manage purchases made by customers on a monthly basis and customer should be able to view their monthly purchase details.

- Payment Management: Admin should be able to manage the payment made by each customer. Customers should be able to view their payment details and make online payment for their purchases.
- Notice Posting: Admin should be able to post notices informing customers about changes in product prices or other relevant information.
- Logout: Both admin and customers should be able to log out of the system.

#### 2.3.1.1 Use Case

A use case is an event or action with reference to the user/actor of the event/actions that should be performed through the software. (Shamil, 2023). The functional requirements can be represented through the Use Case diagram. The use case diagram for this system is represented as follows:

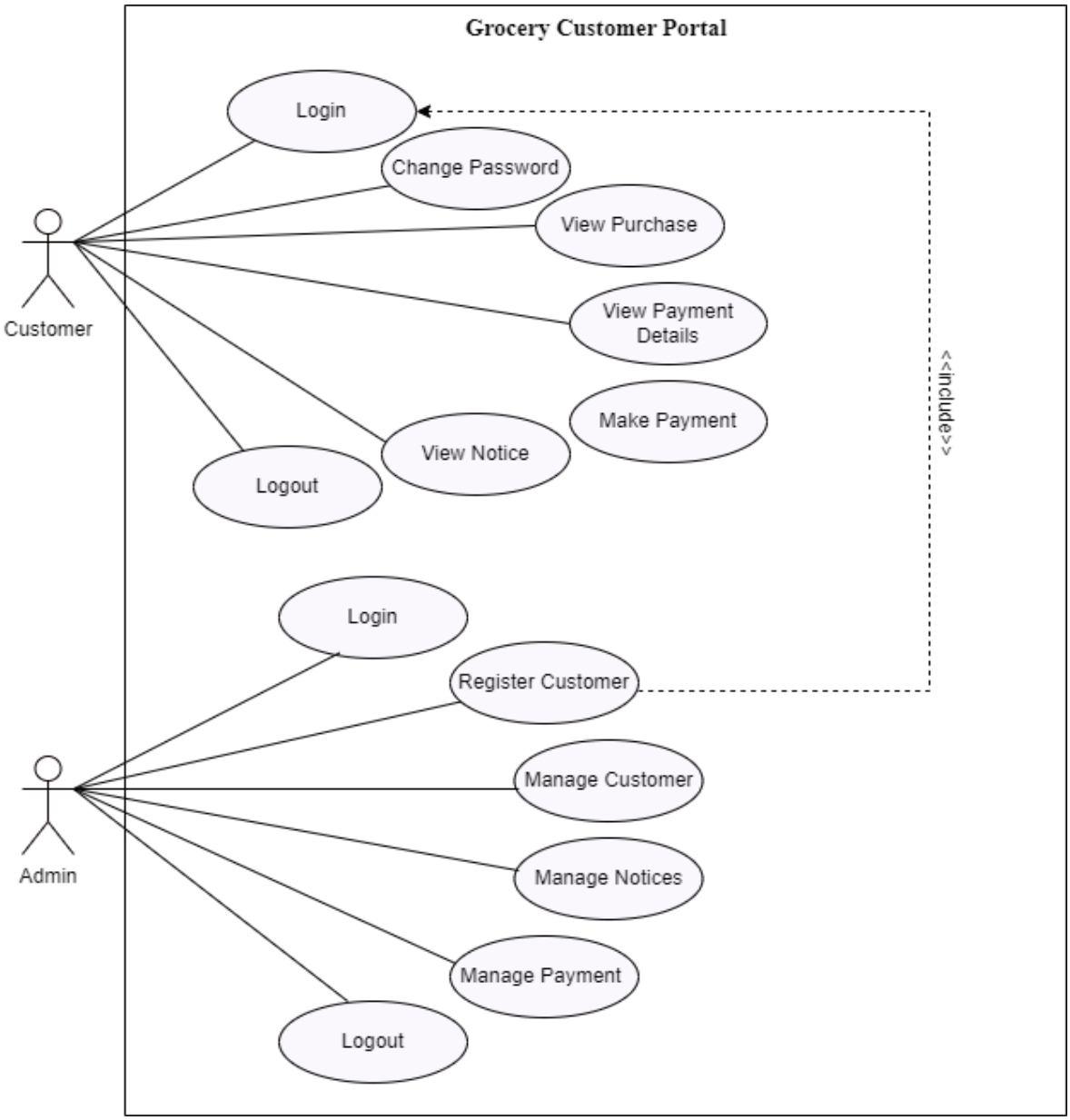


Figure 2. 1: Use Case diagram

The use case diagram above shows that the admin must first log in with their username and password to access the system. The admin can add and manage customer information, including their username, password, and other details, and is responsible for managing customer purchases, notices, and payment statuses.

Customers can only access the system using the username and password provided by the admin. After logging in, customers can view their monthly purchase history, notices, and update their password as needed. A brief tabular representation is given below:

| | |
|---|---|
| Actors | Owner, Customers |
| Description | Admin must first log in with their username and password to access the system. The admin can add and manage customer information, customer purchases, notices, and payment status.<br>Customers can only access the system using the username and password provided by the admin. After logging in, customers can view their monthly purchase history, notices, payment details, make online payments using Khalti and update their password as needed. |
| Data | Data includes customer details, purchase details, payment details |
| Stimulus | Command can be added by owners. For example, the owner can add new customers, add new purchases, add notices |
| Response | For the stimulus instance provided above, owner can view and change the details |
| Comment | -- |

Table 2. 1: Description of Use Case Diagram

### 2.3.2 Non-Functional Requirement

In addition to functional requirements, there are non-functional requirements that are equally important to ensure that the system functions effectively and efficiently. Some of the non-functional requirements for this system could include:

- Usability: The system should be easy to use and navigate for both the admin and customers, with clear instructions and intuitive interface design.
- Reliability: The system should be always reliable and available with minimal downtime or interruptions.
- Security: The system should be secure, with measures such as password to prevent unauthorized access and protect customer data.
- Portability: The system should be able to run on web browsers, which would make it accessible from any device that has a web browser, without the need for installing any additional software or applications.

## 2.4 Feasibility Analysis

It is the process of confirming that a strategy, plan or design is possible. This is used in the project to validate assumptions, constraints, decisions, approaches or business cases. Several types of feasibility analyses were performed to assess the project's feasibility. Conducting a feasibility study is advantageous as it provides a comprehensive overview of the proposed project. The primary objective is to determine whether the project should proceed, be restructured, or abandoned altogether.

### 2.4.1 Economic Feasibility

Economic feasibility refers to the assessment of whether a system is financially feasible or not. In this project, the developed system is economically feasible for the users, as it is cost-effective and eliminates the need for paperwork entirely.

### 2.4.2 Technical Feasibility

Technical feasibility refers to the assessment of whether a system is technically viable or not. In this project, the developed system meets the technical requirements and is economically feasible as it does not require any additional hardware or software. The system is designed to run on web browsers, and it can be hosted on a web server. This web-based application enables users to access it easily from anywhere using an internet connection.

### 2.4.3 Operational Feasibility

Operational feasibility assesses the practicality of deploying and operating a project. While there may be some challenges, such as users being reluctant to change, the system has high operational feasibility overall. The system has a simple interface, making it easy to use, and users require no special training to operate it.

### 2.4.4 Schedule Feasibility

Schedule feasibility involves validating whether a system conforms to the given time constraints. In this project, there was sufficient time available to carry out each activity efficiently and effectively. As a result, the project is feasible to build in terms of schedule as well.

## 2.5 System Design

System design is the process of creating a detailed plan for the architecture and components of a software system to meet specified requirements.

### 2.5.1 Data Modelling

Data modeling is the process of creating a visual representation or structure of data to understand its relationships, attributes, and constraints in order to facilitate effective database design and development. The data modeling techniques used in this project include:

#### 2.5.1.1 ER-Diagram

ER-Diagram (ERD) is a data modeling technique used in software engineering to develop a conceptual data model of a system. It uses ER modeling to create a diagram that connects the logical structure of the database to its users.

ER-Diagram of this system is represented below.

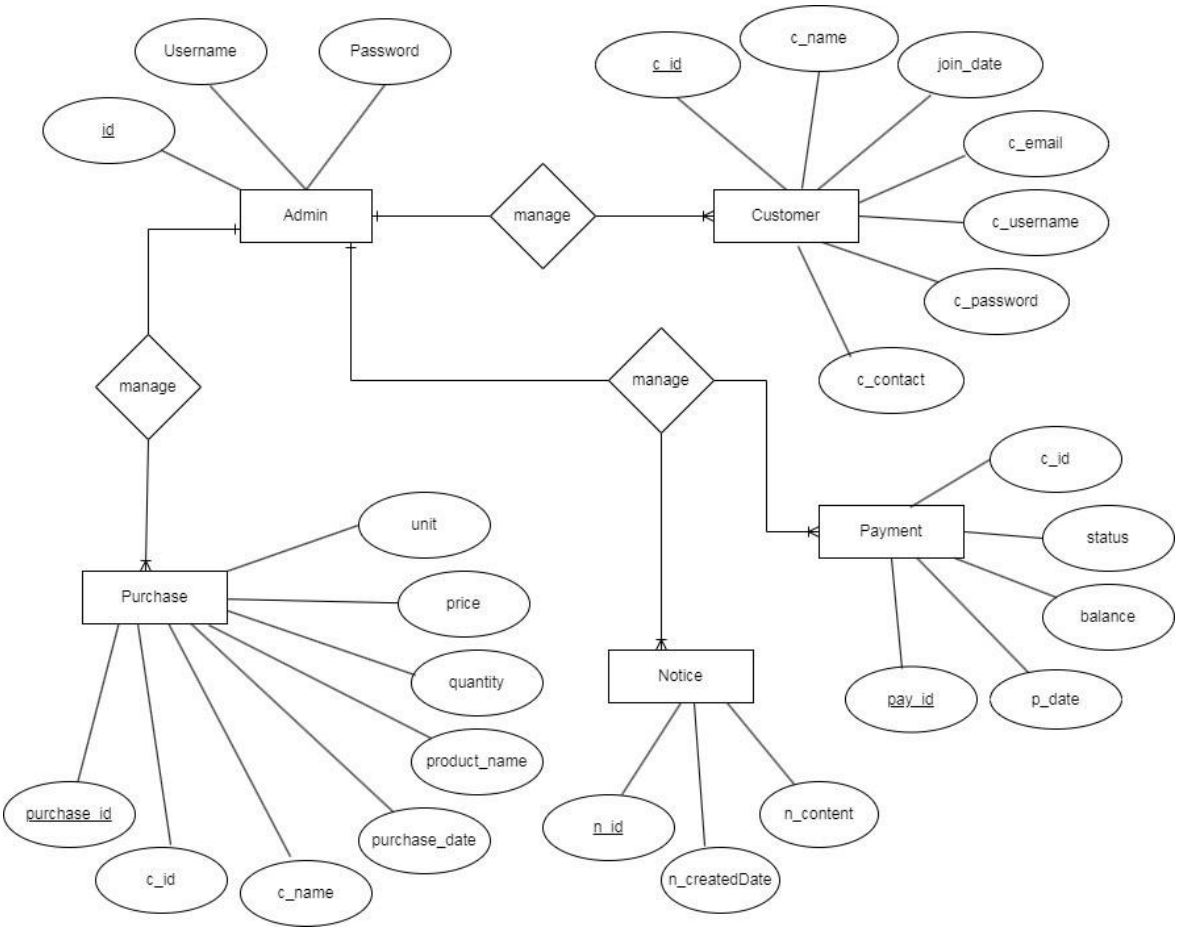


Figure 2. 2 : ER-Diagram

| ER-Diagram Description |
| --- |
| The diagram above depicts five entities: Admin, Customer, Purchase, Payment, and Notice. The Admin entity has three attributes: id, Username, and Password. The cardinality of the Admin entity with other entities is one-to-many, indicating that an admin can manage multiple instances of the other entities. |

Table 2. 2 : ER-Diagram Description

### 2.5.1.2 Class Diagram

A class diagram in the (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects. (Class Diagram, 2022). Class Diagram of this system is represented below.

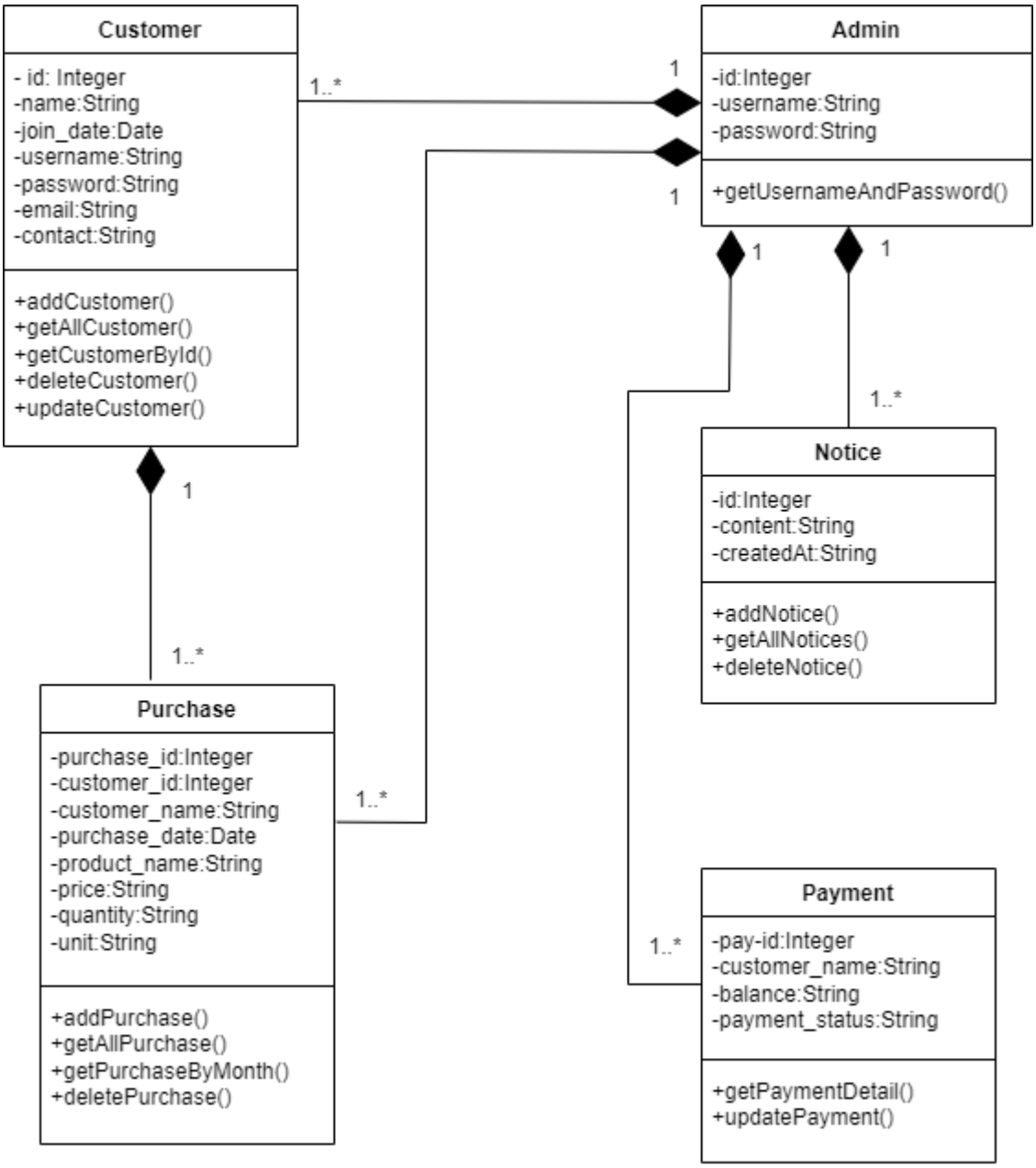


Figure 2. 3 : Class Diagram

| **Class Diagram Description** |
| --- |
| The class diagram above shows five classes, with the Admin class playing a crucial role in the overall system operation. The different associations in the diagram indicate different relationships, with "1" representing exactly one and "1..*" representing one or many. An Admin can manage one or many Customer, Notice, Purchase, and Payment classes. On the other hand, a Customer can make one or many purchases. |

Table 2. 3 : Class Diagram Description

### 2.5.1.3 Activity diagram

An activity diagram visually presents a series of actions or flow of control in a system similar to a flowchart or a data flow diagram. (Activity Diagram, 1994-2023) Activity diagrams use a set of standard symbols and connectors to depict the flow of activities. Activity Diagram of this system is represented below.

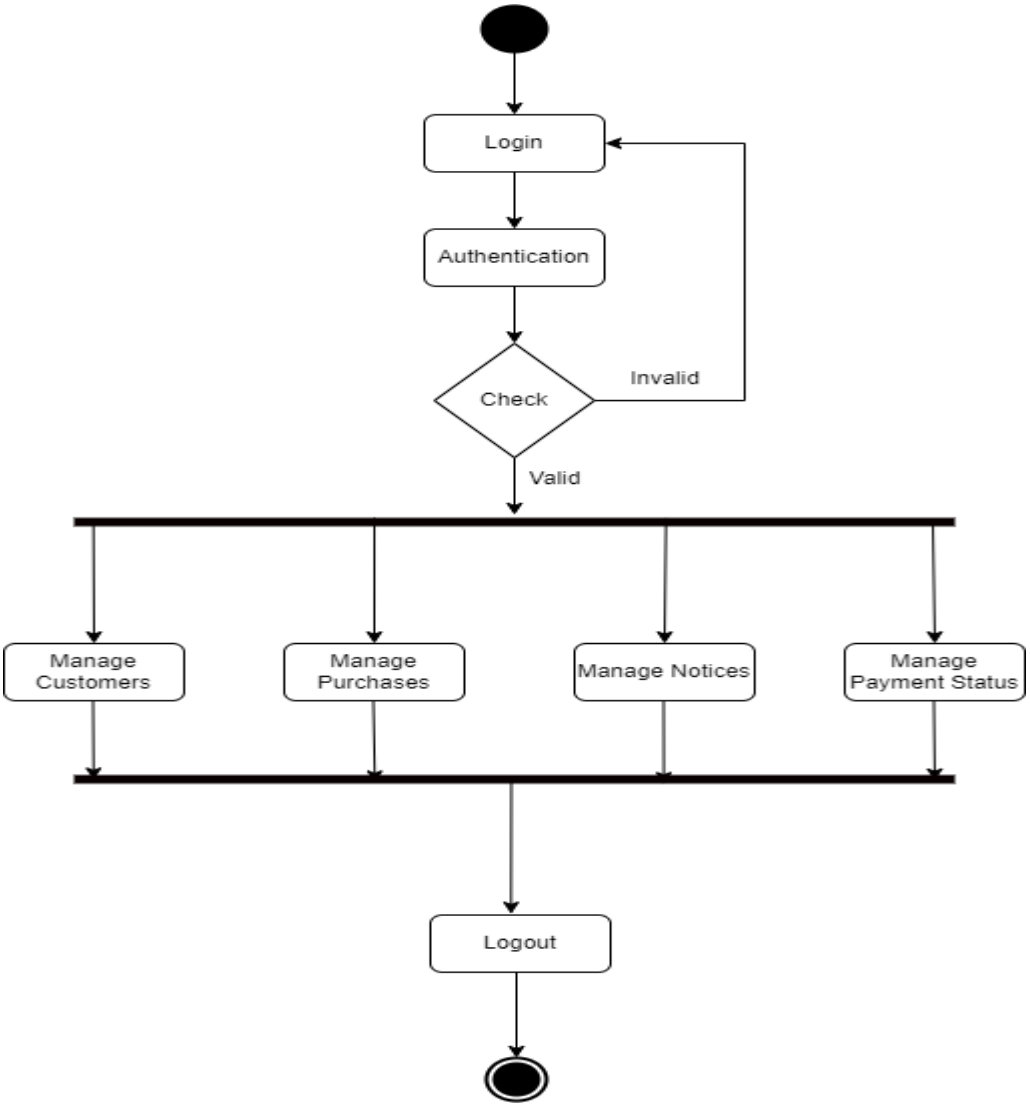


Figure 2. 4 : Activity Diagram (Admin side)

| **Activity Diagram Description (Admin Side)** |
| --- |
| The above diagram depicts the flow of control for admin interactions within the system. The process starts with the user accessing the login page and the system authenticates the provided credentials. If the authentication fails, the user is redirected back to the login page. On successful authentication, if the user is an admin, access is granted to the dashboard for managing customers, purchases, notices, and payment status. Once the necessary tasks are completed, the admin can logout of the system. |

Table 2. 4 : Activity Diagram Description (Admin Side)

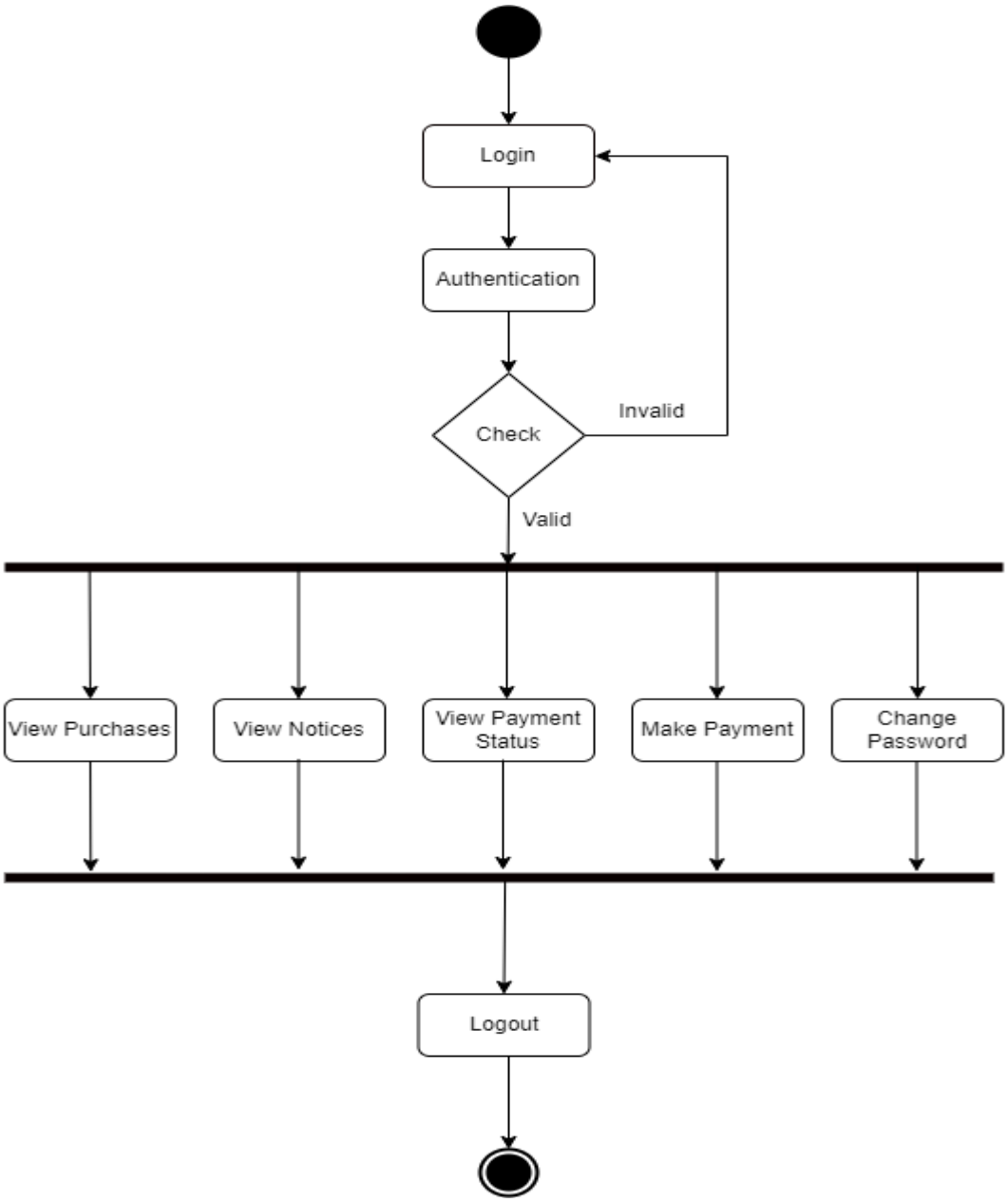


Figure 2. 5 : Activity Diagram (Customer side)

| **Activity Diagram Description (Customer Side)** |
| --- |
| The above diagram depicts the flow of control for customer interactions within the system. The process starts with the user accessing the login page and the system authenticates the provided credentials. If the authentication fails, the user is redirected back to the login page. On successful authentication, if the user is a customer, they can access the system to view their monthly purchases, payment status and notices. They can make online payment for their purchases using Khalti. They can also change their account password as needed. After finishing their tasks, the customer logs out of the system. |

Table 2. 5 : Activity Diagram Description (Customer Side)

#### 2.5.1.4 Sequence Diagram

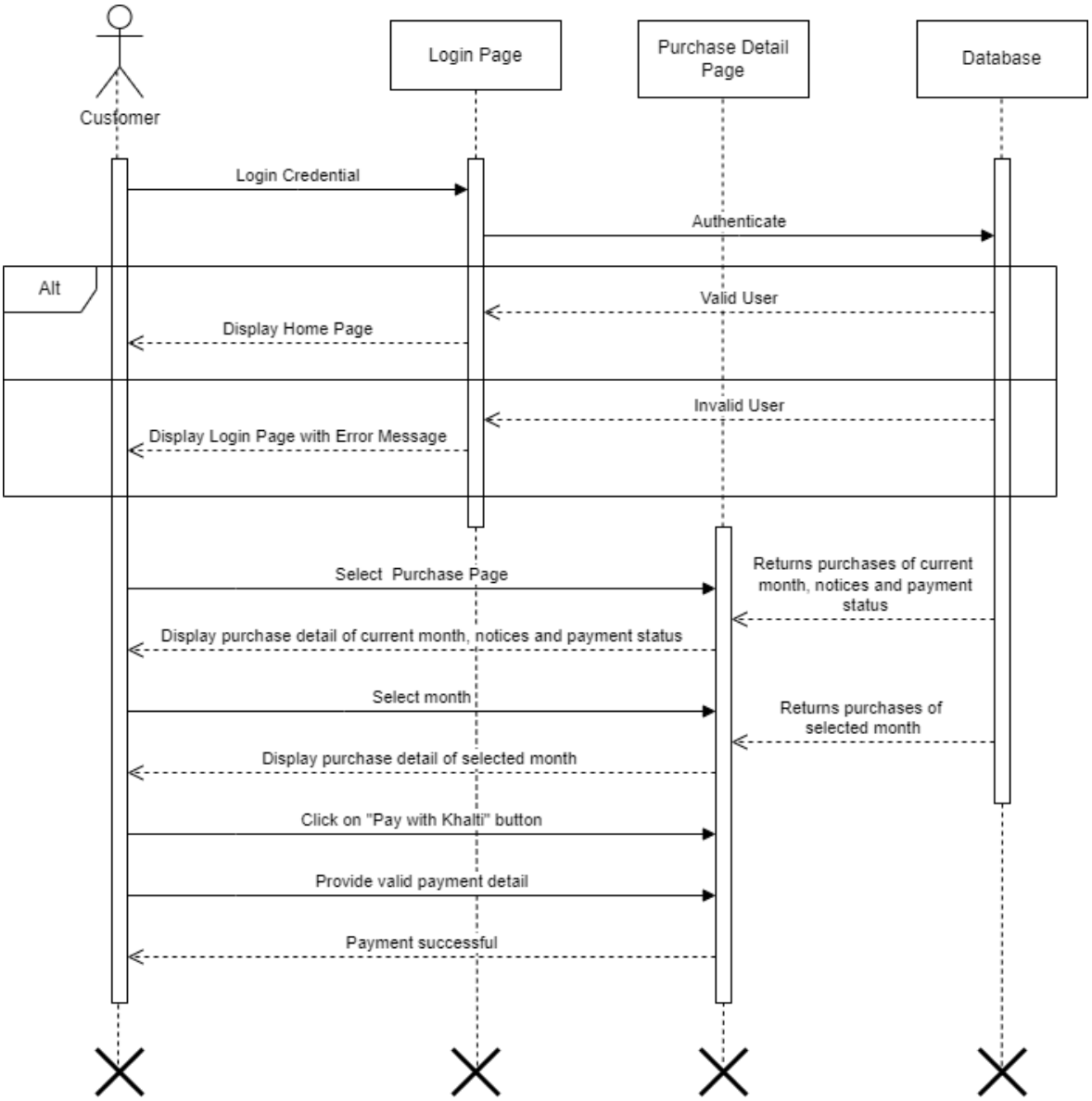


Figure 2. 6 : Sequence Diagram

| Sequence Diagram Description |
| --- |
| The customer starts by entering their login credentials into the login form. These credentials are then authenticated by checking with the database. If the credentials are found to be valid, the system proceeds to display the home page. However, if the credentials are invalid, the system presents the login page again, accompanied by an error message indicating the invalid credentials. Once the customer successfully logs in, they are granted access to the purchase page. On this page, they can view their purchase details for the current month with notices. To further explore their purchase history, the customer has the option to select a different month. By choosing a specific month, the system displays purchase details of the selected month. |

Table 2. 6 : Sequence Diagram Description

## 2.6 System Implementation

### Module 1: Login

The system requires valid login credentials for both the admin and the customer to access their respective accounts. On the login page, admin must enter their username and password. If the entered credentials match the data stored in the database, the page redirects to the respective dashboard. However, if the credentials are incorrect, the admin is redirected back to the login page to try again. Similarly, the admin provides the customer credentials to access the system, and customers must enter these credentials to gain access. If the entered credentials are valid, the customers get access to the system. If not, they are redirected back to the login page to try again.

### Module 2: Dashboard

It consists of information on the number of registered customers and completed payments. Additionally, it includes a text area where the admin can add notices, which can be viewed and deleted later by the admin.

### Module 3: Customer

It contains detailed information about customers. Within this module, the admin can add new customers, edit existing customer information, and delete customer accounts. By clicking on the "Add" button, a form is displayed where the admin can enter valid customer data. Once the admin clicks the "Add Customer" button, the data is stored in the database and the admin is redirected to the customer page with a success message. If the admin enters invalid data, an error message is displayed. Similarly, when the admin clicks on the "Edit" button, a form is displayed pre-populated with the customer's current data. The admin can update the form with valid data and click the "Edit Customer" button, upon which the data is updated in the database and a success message is displayed. If invalid data is entered, an error message is displayed.

### Module 4: Purchase

It contains detailed information about the purchases made by each customer. Within this module, the admin can add, delete, and view the purchase history of each customer on a monthly basis. The admin can add purchase details for each customer. Once the details have been entered and the "Add Purchase" button is clicked, the purchase is added to the customer's purchase history and a success message is displayed.

### Module 5: Payment

It contains detailed information about the payments made by each customer. It displays the remaining balance and the status of the payment. The admin can add the amount paid by the customer, which will automatically update the payment status accordingly.

## 2.7 Testing

System testing is the process of testing a complete and integrated software system to ensure it meets its requirements and is ready for deployment. For the test cases of this system, we are using unit testing method.

The test case for login unit is given below:

| | |
|---|---|
| Project Name: Grocery Customer Portal | |
| Test Case | |
| Test Case ID: TC-001 | Test Designed Date:2023-05-14 |
| Test Case Type: Functional Test Case | Test Execution Date:2023-05-14 |
| Requirement Number:1 | |
| Module: Login | |
| Severity: Critical | |
| Pre-Condition: Valid username and password should be entered. | |
| Post-Condition: The user is provided access to the system | |
| Test Data: Username - Admin, Password - Admin | |
| Summary: to check the functionality of login | |

| **Step** | **Description** | **Inputs** | **Expected Result** | **Actual Result** | **Status** | **Comment** |
|---|---|---|---|---|---|---|
| 1 | Navigate to Login Page | Run the application | Login page should be displayed | As expected, | Pass | |
| 2 | Enter following value | | | | | |
| | Valid | Username:Admin Password:Admin Click “Login” | Dashboard should be displayed | As expected, | Pass | |
| | Invalid | Username:Ad12 Password:1234 Click “Login” | Login Page should be displayed with error message | As expected, | Pass | |
| | Blank | Username:Null Password:Null Click “Login” | Login Page should be displayed with error message | As expected, | Pass | |

Table 2. 7 : Login Testing

The test case for Add Customer unit is given below:

| Project Name: Grocery Customer Portal | |
|---|---|
| Test Case | |
| Test Case ID: TC-002 | Test Designed Date:2023-05-14 |
| Test Case Type: Functional Test Case | Test Execution Date:2023-05-14 |
| Requirement Number:2 | |
| Module: Add Customer | |
| Severity: Critical | |
| Pre-Condition: Valid information should be entered. | |
| Post-Condition: The new customer is stored in database | |
| Test Data: Name-Harry Shakya, Username-HarryShakya, Password-Harry, Email-harry@gmail.com, Contact-9873663547 | |
| Summary: to check the functionality of add customer | |

| Step | Description | Inputs | Expected Result | Actual Result | Status | Comment |
|---|---|---|---|---|---|---|
| 1 | Navigate to Login Page | Username:Admin<br>Password:Admin | Dashboard should be displayed | As expected, | Pass | |
| 2 | Navigate to Customer page | Click | List of customers should be displayed | As expected, | Pass | |
| 3 | Click “Add Customer” Button | Click | Registration Form should be displayed | As expected, | Pass | |
| 4 | Enter Customer informations | | | | | |
| | Valid | Name:Harry Shakya<br>Username:HarryShakya<br>Password:Harry<br>Email:harry@gmail.com<br>Contact:9873663547<br>Click “Add Customer” | Success message should be displayed | As expected, | Pass | |
| | Invalid | Name:Harry<br>Username:Harry<br>Password:123<br>Email:harry.com<br>Contact:98736<br>Click “Add Customer” | Error message should be displayed | As expected, | Pass | |

Table 2. 8 : Add Customer Testing

## 2.8 Findings

First of all, the problems were analyzed through proper research in the organization. The analysis revealed several issues which were thoroughly examined. Various potential solutions were evaluated, and a few were even put into practice. Consequently, this software was created as a resolution to the identified problems. The findings encompass not only the issues and solutions, but also strategies for implementing these solutions in the form of this system and its features. During the development process of the project Internet, books, alternate system were considered which helped a lot to gain knowledge and skills to develop the system. Additionally, I discovered various other applications for the programming language used in developing the system, as well as webpage design.

# CHAPTER 3
# DISCUSSION AND CONCLUSIONS

## 3.1 Discussion

There are many users who are willing to go digital but most are reluctant to use it. The reason for them to feel so is probably due to insecure perception towards providing information online. However, the system provides a solution for the customers to view their monthly purchase history easily. During this summer project, following data and information were discussed:

- Current situation of the organization
- Advantages of using the software
- How this software can be used for efficiency in work

Although the system still has areas that require attention and unresolved issues, it is anticipated that these challenges will be overcome in the future with the introduction of new features.

## 3.2 Conclusion

The web-based system developed for the grocery shop has been successfully completed within the specified time frame, meeting all the required objectives. It provides enhanced transparency and convenience for customers through a user-friendly interface, allowing them to easily access their monthly purchase history. This digital system is a significant improvement compared to the previous manual record-keeping method. Upon evaluating the system within the organizational environment, it is anticipated that the system will bring benefits to the organization.

The implementation of the system has been guided by the knowledge acquired throughout my academic career, and this summer project has provided valuable practical experience in understanding the working procedures of an organization in a real-time setting.

In conclusion, this project has not only enhanced my skills and learning but has also equipped me with the ability to work effectively in a real-world environment.

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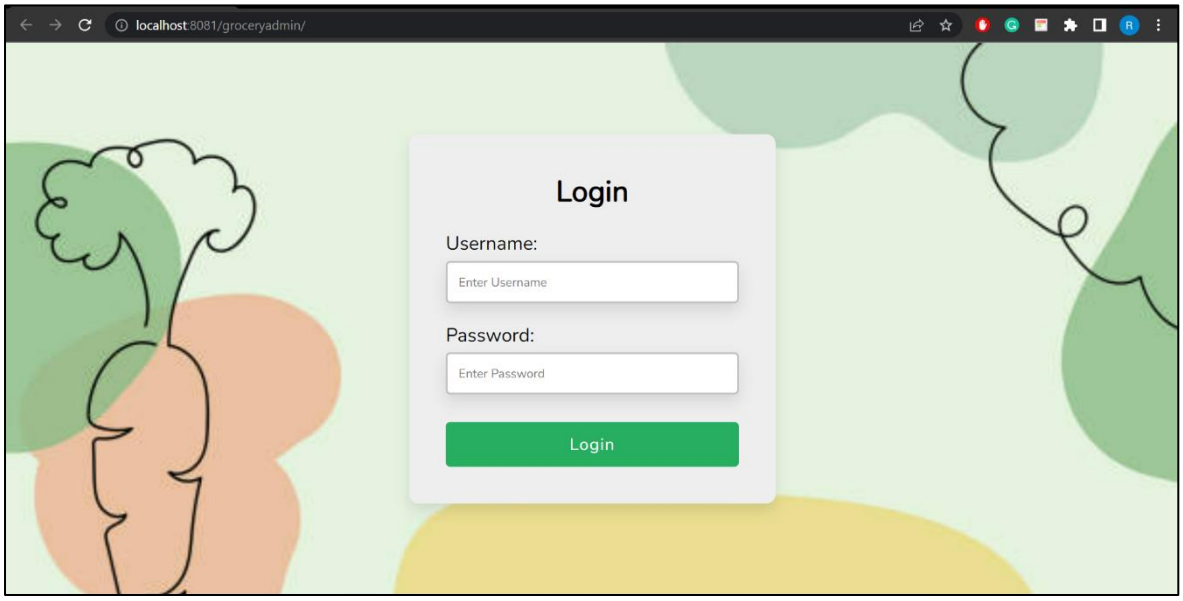
# APPENDICES

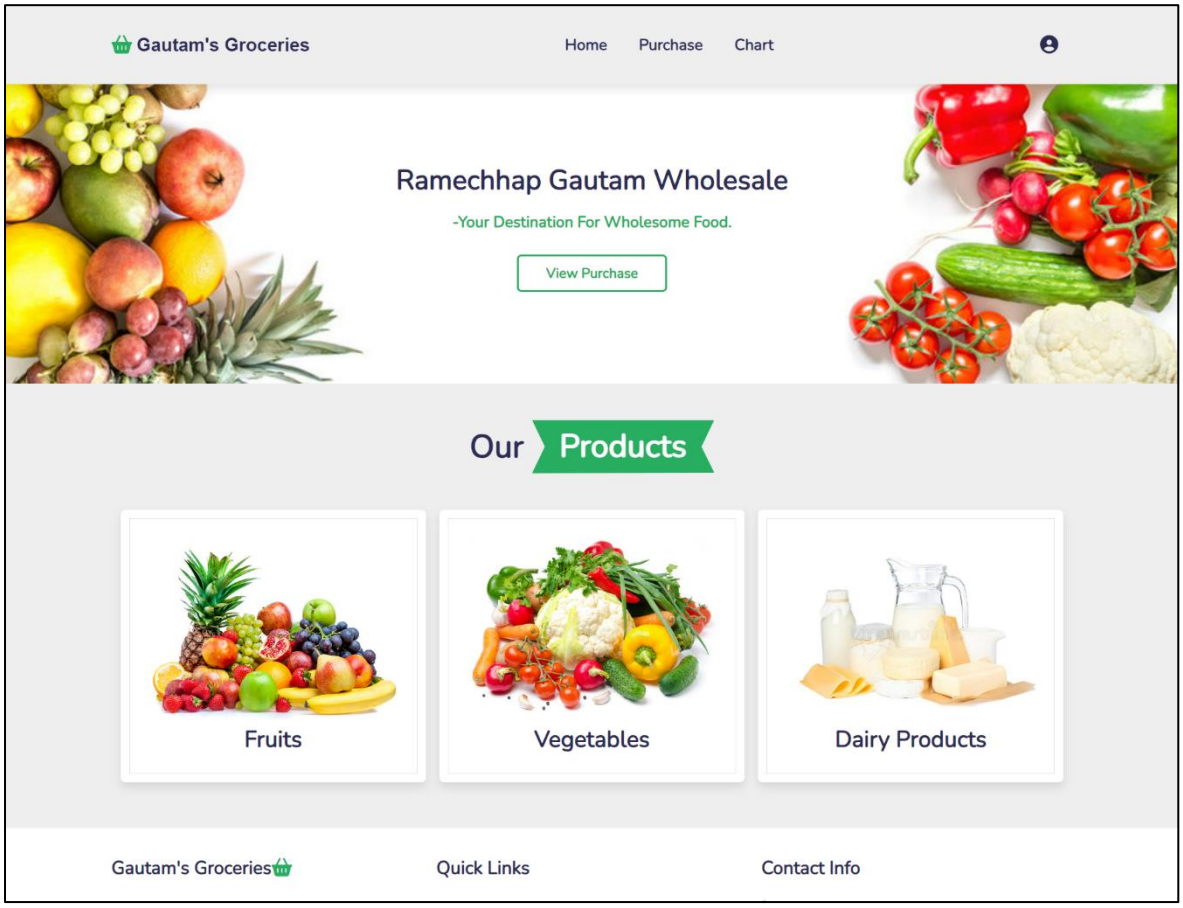
**Some Questions asked to the owner is listed below:**

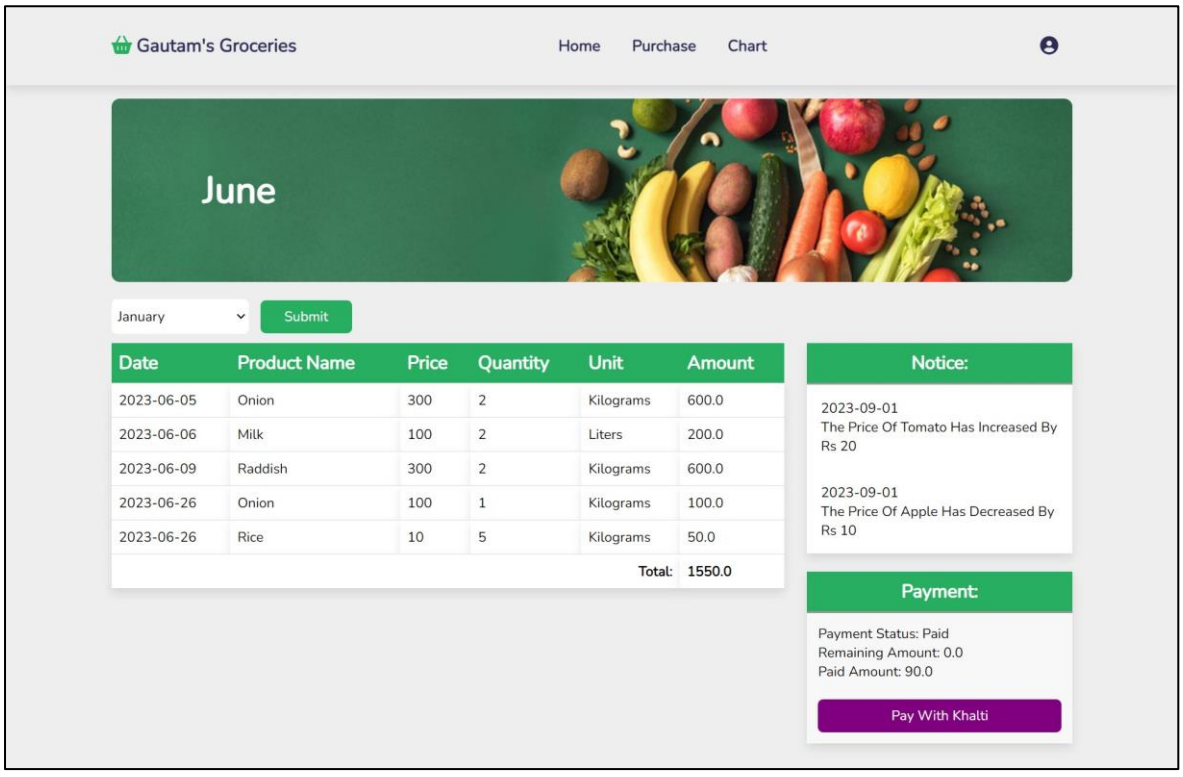
1. How many years have you been operating your grocery shop?
2. Can you provide a list of the items that you sell in your shop?
3. Can you describe the credit facility that you currently offer to your regular customer?
4. Do customers have access to their purchase history?
5. Is there any other mode of payment besides cash that you accept?
6. Do you currently have a loyalty program for customers?
7. How do you keep track of the purchases made by each customer throughout the month?
    a. Manually using paper-style
    b. Using Spreadsheets
    c. Any other software system (Please specify)
8. Have you faced any challenges or issues with your current record-keeping method?
9. Are you open to implementing a digital record-keeping system?
10. What features would you like to observe in a digital record-keeping system?

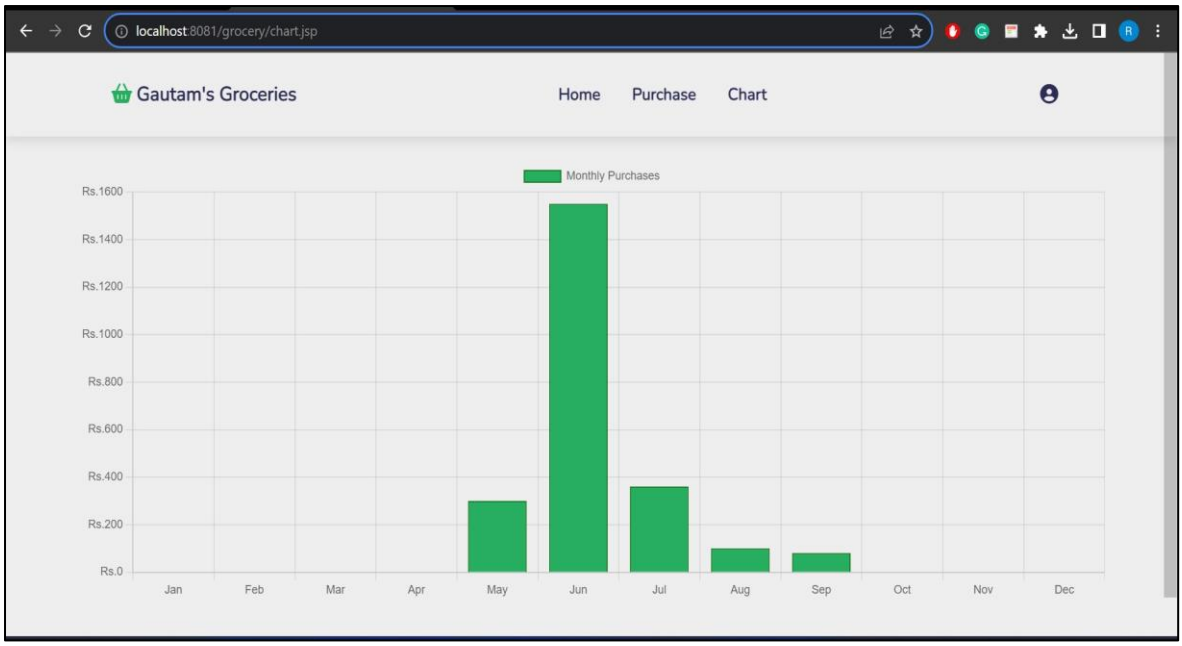
**Few Screen Shots of System:**



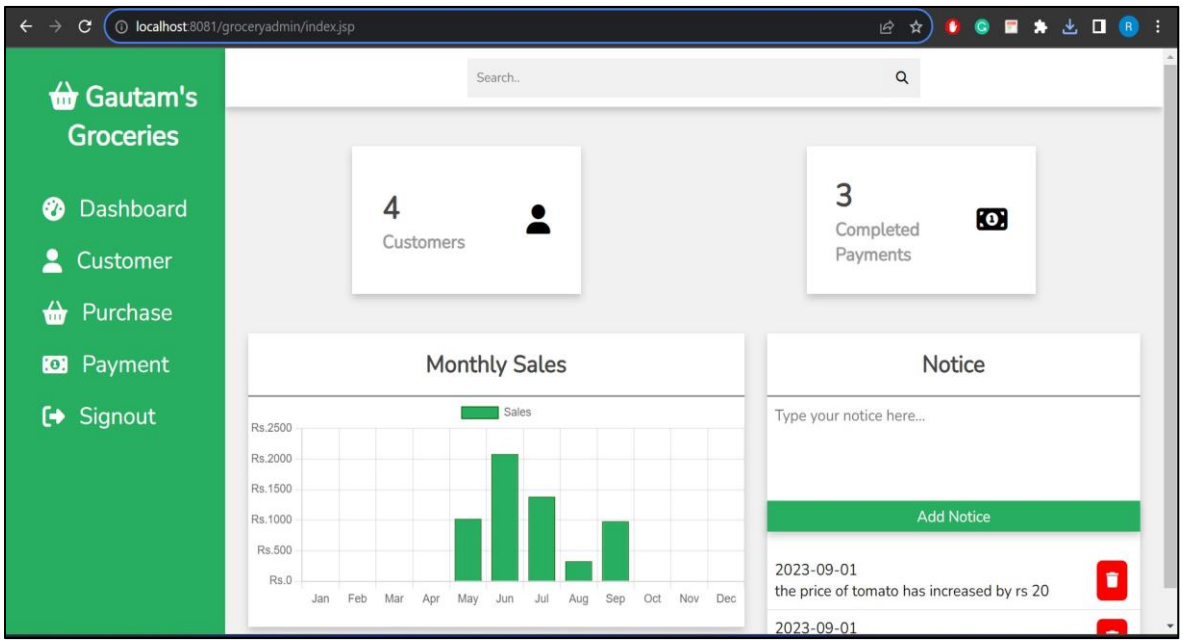
**Customer Side:**

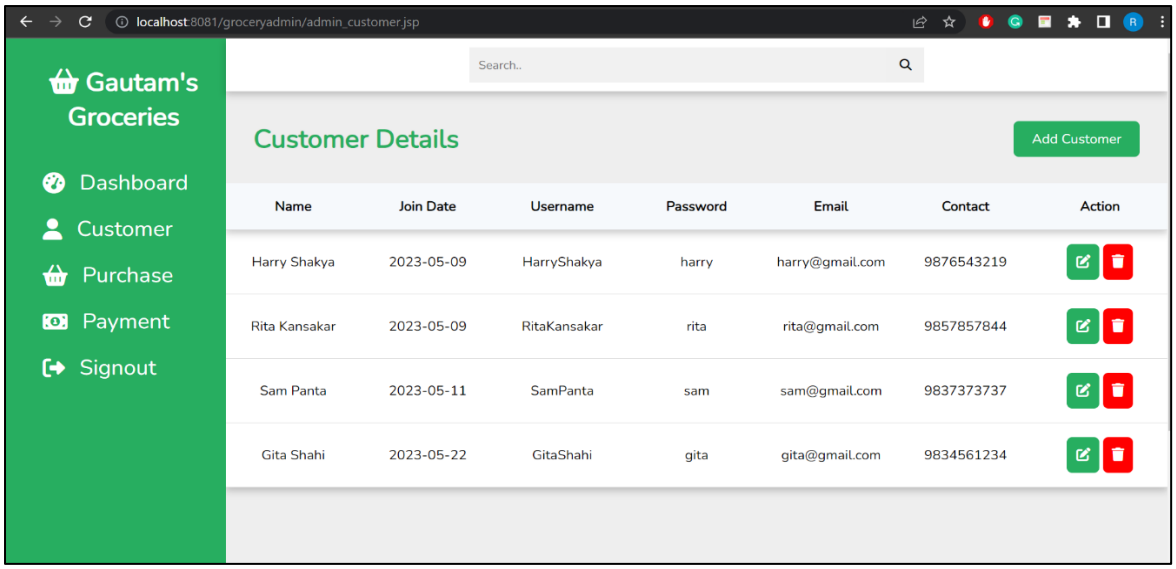


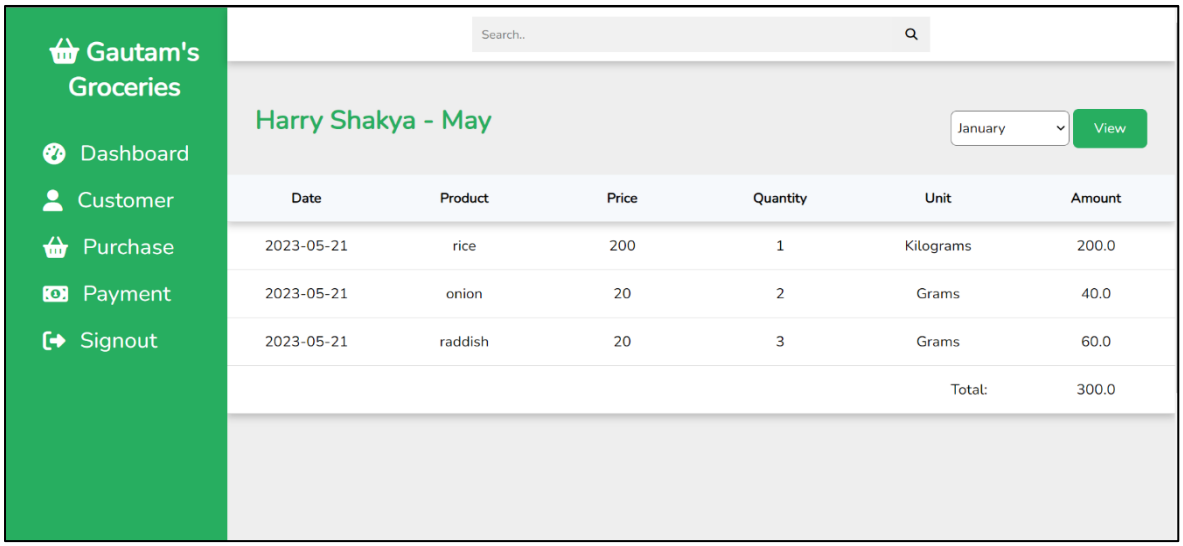



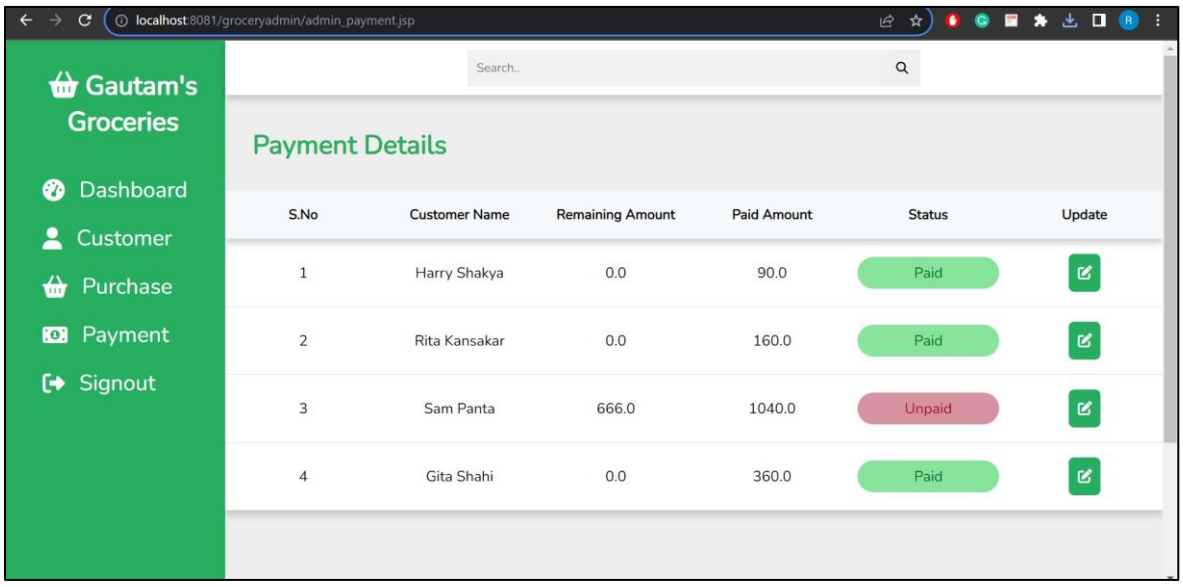

localhost:8081/grocery/chart.jsp
Gautam's Groceries
Home
Purchase
Chart
Monthly Purchases
Rs.1600
Rs.1400
Rs.1200
Rs.1000
Rs.800
Rs.600
Rs.400
Rs.200
Rs.0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

**Admin Side:**


localhost:8081/groceryadmin/index.jsp
Gautam's Groceries
Dashboard
Customer
Purchase
Payment
Signout
Search..
4
Customers
3
Completed Payments
Monthly Sales
Sales
Rs.2500
Rs.2000
Rs.1500
Rs.1000
Rs.500
Rs.0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Notice
Type your notice here...
Add Notice
2023-09-01
the price of tomato has increased by rs 20
2023-09-01


localhost:8081/groceryadmin/admin_customer.jsp
Gautam's Groceries
Search..
Dashboard
Customer
Purchase
Payment
Signout
Customer Details
Add Customer
Name
Join Date
Username
Password
Email
Contact
Action
Harry Shakya
2023-05-09
HarryShakya
harry
harry@gmail.com
9876543219
Rita Kansakar
2023-05-09
RitaKansakar
rita
rita@gmail.com
9857857844
Sam Panta
2023-05-11
SamPanta
sam
sam@gmail.com
9837373737
Gita Shahi
2023-05-22
GitaShahi
gita
gita@gmail.com
9834561234


Gautam's Groceries
Search..
Dashboard
Customer
Purchase
Payment
Signout
Harry Shakya - May
January
View
Date
Product
Price
Quantity
Unit
Amount
2023-05-21
rice
200
1
Kilograms
200.0
2023-05-21
onion
20
2
Grams
40.0
2023-05-21
raddish
20
3
Grams
60.0
Total:
300.0


localhost:8081/groceryadmin/admin_payment.jsp
Gautam's Groceries
Search..
Dashboard
Customer
Purchase
Payment
Signout
Payment Details
S.No
Customer Name
Remaining Amount
Paid Amount
Status
Update
1
Harry Shakya
0.0
90.0
Paid
2
Rita Kansakar
0.0
160.0
Paid
3
Sam Panta
666.0
1040.0
Unpaid
4
Gita Shahi
0.0
360.0
Paid