A PROJECT REPORT
on
"Shop Management System"

Submitted by

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DECLARATION

We hereby declare that the project entitled “Shop Management System” submitted for the Distributed Database Management System works in the semester, Summer 2021 in the faculty of Computer Science and Engineering of Bangladesh University of Business and Technology (BUBT), it is our original work and that contains no material which has been accepted for the award to the candidates of any other degree or diploma, except where due reference is made in the next of the project to the best of our knowledge, it contains no materials previously published or written by any other person except where due reference is made in this project.

APPROVAL

This project titled as “Shop Management System” report was submitted by Syeda Nowshin Ibnat, Mahmuda Begum, Nusrat Jahan Anka, and Nawrin Zaman Prova students of the Department of Computer Science and Engineering, Bangladesh University of Business and Technology (BUBT), under the supervision of, Fazle Rahat, lecturer, Department of Computer Science and Engineering has been accepted as satisfactory for the partial requirements for the degree of Bachelor of Science Engineering in Computer Science and Engineering.

ACKNOWLEDGEMENTS

We would like to thank the following people for their help in the production of this project Fazle Rahat, project supervisor for all of his ongoing assistance with the project, without whose help and support throughout, this project would not have been possible.

ABSTRACT

This Distributed Database Management System incorporates the management system into a desktop application to help owners to manage the shop. This project presents the requirements analysis, the design, and the implementation of software using modern technology. This project also serves the purpose of learning new technologies and discovering new features. It will serve as an introduction to software development using databases.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Shop Management System is an application that keeps track of all the transactions and generates a bill for all the purchased goods. With this easy-to-use application owners get a great opportunity to administer their categories, products, suppliers, customers, orders, sales, etc. This all-in-one solution will help manage the shop and save time by automating and simplifying every day's operations. There are some key features that made our project effective. There are: three different users, login option, Insert, delete items, etc. It helps the owners to manage their inventory items into an optimal mode and cut down their business costs.

1.2 Problem Background

Nowadays the maximum shop's working process is manual, so the shop is not using any software till now. The management system is paper-based, inventory controls are manual. They are using manual records. They have no selling or payment records using any software. They are not using any system to modify the order list. It's a traditional Shop Management System.

1.3 Project Objectives

The aim is to automate its existing manual system with the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy access and manipulation of the same. In real life, it's an important system for both owners & customers.

1.4 Motivation of the Project

A shop management system is a unique tool for managing shops effectively. The main motivation for choosing this project is to reduce the waste of our valuable time. We know that managing a shop is really difficult for the shop owner. Without properly organized shop customers also don't get their desirable services in time. So, it may create quite a problematic situation. The shop owners may face difficulties at the end of the month for not properly buying or selling records. With this great opportunity to administer owners categories, products,

suppliers, customers, orders, sales, etc. So, in this project, we want to make the system powerful, flexible, easy to use and is designed to deliver real conceivable benefits to shop.

1.5 Project Contributions

Every project contributes to different fields. This project can be considered a modern system. The purpose of the project ‘shop Management System’ is to build a desktop-based system to reduce manual work. Our project contributes to science and technology. This project intends to give a secure & proper management system for the owners, employees & customers. This system will reduce time consumption.

CHAPTER 2

BACKGROUND

2.1 Existing System

There are many shop management systems, which use their process manually. Manual scheduling can be a burden for many establishments, as it requires significant time and staff resources to manage properly. Until this project, we didn't have our own management system.

2.2 Problem Analysis

Generally, in the currently existing system, managing inventory is quite challenging. In that case, owners & employees had to face many issues. Employees can't collect customers' information properly. This is a time-consuming & costly system.

2.3 Supporting Theory

Shop Management System is a very necessary thing for shop authority after analyzing the existing system and the problem faced by the authority through the old system. We try to make such a system that helps people to find an easy way to use it. This system is more efficient, effective, and profitable.

CHAPTER 3

PROPOSED MODEL

3.1 Feasibility Analysis

A feasibility study is a study that includes the analysis of the software if it is cost-effective from the economic view, if it can fulfill the requirement technically, and if it is adaptable in the required environment. Our project includes technical feasibility, economic feasibility, Organizational feasibility.

3.1.1 Technical Feasibility

This assessment focuses on the technical resources available to the organization. It helps organizations determine whether the technical resources meet capacity and whether the technical team is capable of converting the ideas into working systems. Technical feasibility also involves the evaluation of the hardware, software, and other technical requirements of the proposed system. In our project, the user needs devices like a pc or laptop.

3.1.2 Economic Feasibility

This assessment typically involves a cost/ benefits analysis of the project, helping organizations determine the viability, cost, and benefits associated with a project before financial resources are allocated. Here, we find the total cost and benefit of the proposed system over the current system. For this project, the main cost is owners, employees and customers would have to pay for the devices if they don't have any.

3.1.3 Organizational feasibility:

This shows the management and organizational structure of the project. This project is built by a team or group. The management tasks are all to be carried out by the team and it won't create any management issues and increase the feasibility of the project.

3.2 Requirement Analysis

Since our project is a software system. So, it can run on any device like a pc or laptop. This system is being built keeping in mind the generally available hardware and software compatibility.

The basic hardware requirements are :

- Pc/laptop.
- 8GB RAM
- 8GB HDD (normally)

The software /tools and technologies :

- Language: JAVA
- Database: SQL
- Database Server: Xampp
- IDE: Netbeans, Notepad ++
- Documentation tool: Google docs, slides.

Non-Functional Requirements:

- The system ensures safety, security, and usability, which are observable during operation (at run time).
- The system is adaptable to different situations.
- The project is light on resources.

3.3 System Architecture

ER Diagram

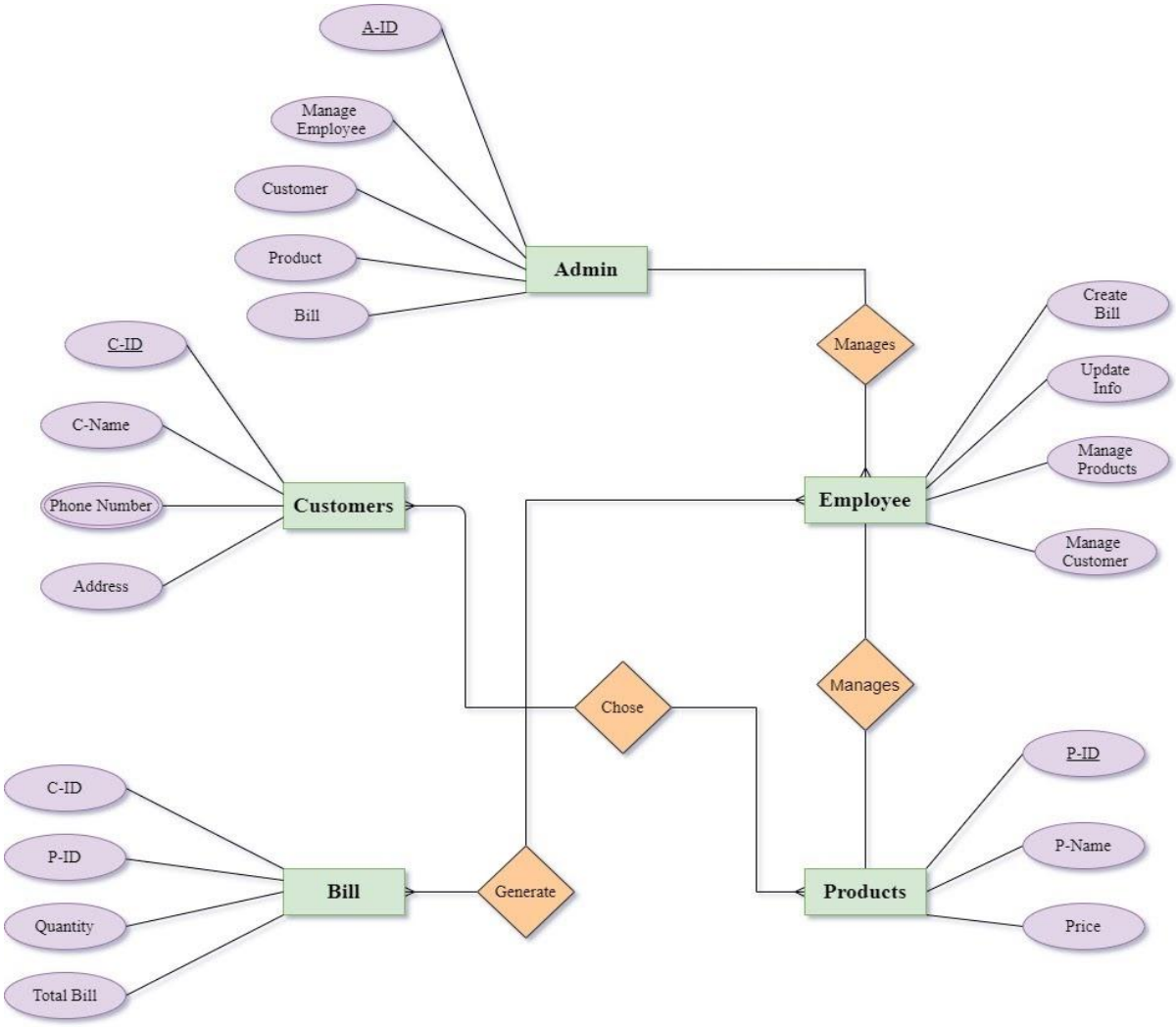

Figure 1: ER diagram of our system

Mapping table from ER diagram

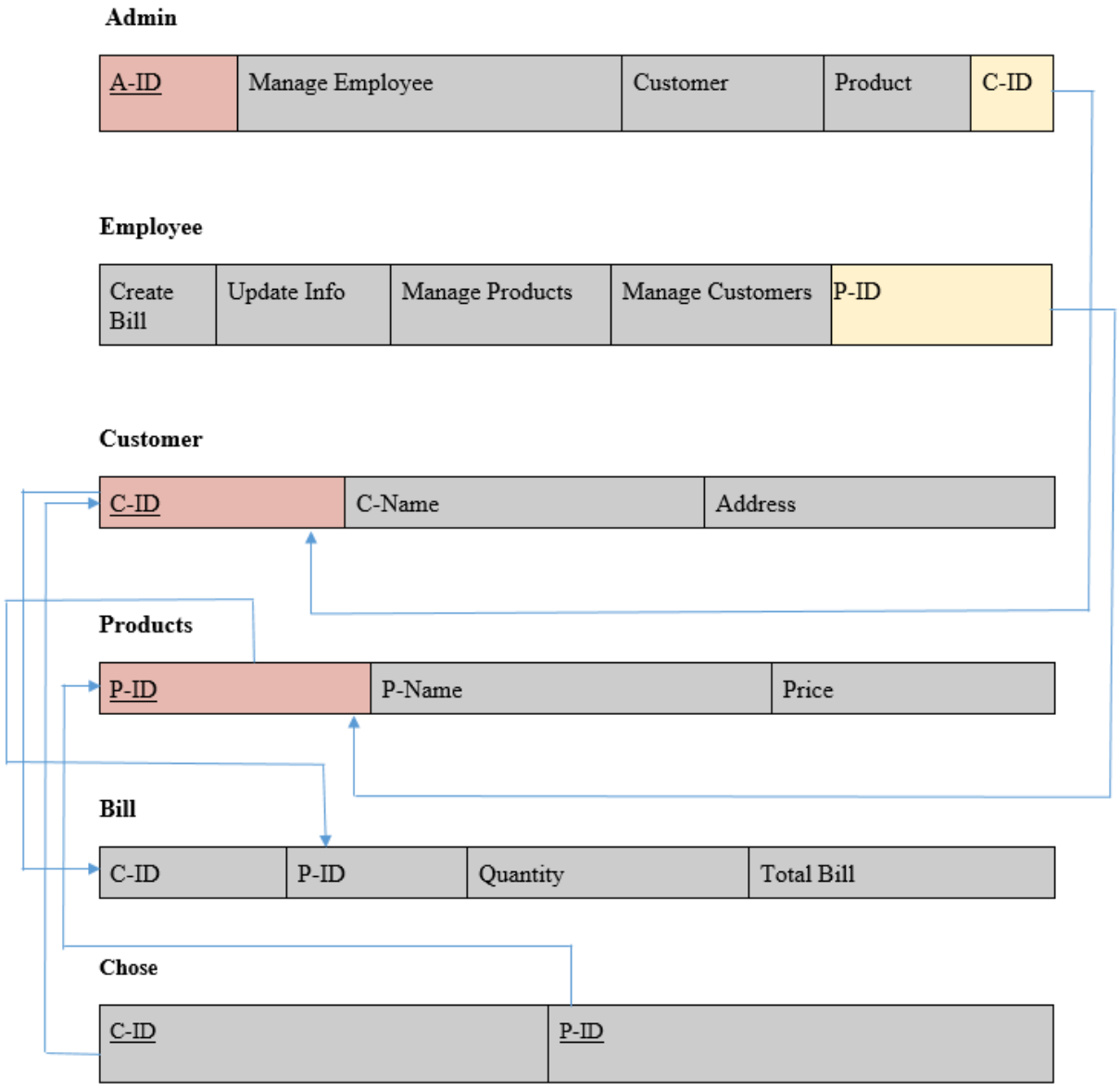

Figure: Mapping table from ER diagram

3.4 Methodology

For our project, we are going to use an agile methodology. The Agile methodology is a way to manage a project by breaking it up into several phases. Iterative or agile life cycles are composed of several iterations or incremental steps towards the completion of a project. Iterative approaches are frequently used in software development projects to promote velocity and adaptability since the benefit of iteration is that we can adjust as we go along rather than following a linear path. The agile approach involves constant collaboration and continuous improvement at every stage. Once the work begins, teams cycle through a process of planning, executing, and evaluating. Continuous collaboration is vital.

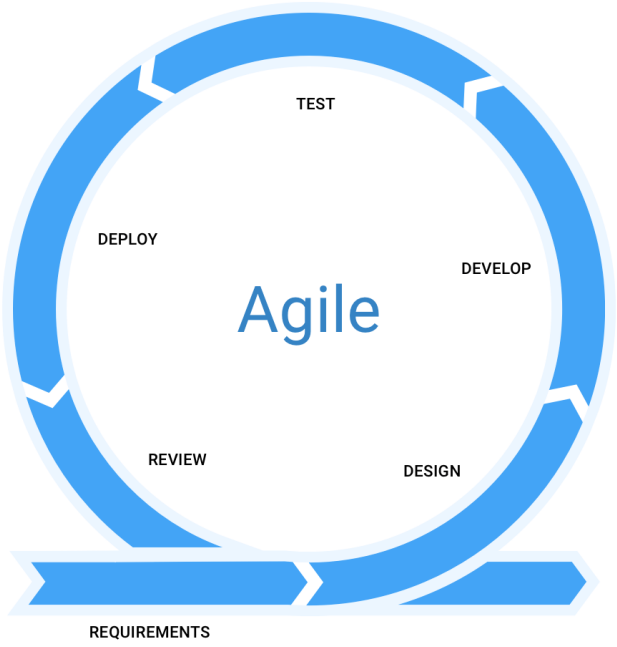

Figure 4: Agile Methodology

3.5 Implementation

Implementation is the realization of an application or execution of a plan, idea, model, design, specification, standard, algorithm, or policy. This project implements MySQL and JAVA. The project will be capable of running smoothly. The password was being kept encrypted.

CHAPTER 4

IMPLEMENTATION AND TESTING

4.1 Project Planning

We are willing to complete our project within 6-7 weeks. At this time, first, we will analyze our requirements then we will start to work on our project.

Stakeholders of our project:

ID	Name	Designation	Responsibility
17183103020	Syeda Nowshin Ibnat	Team Leader and Front-end Designer	Team managing, Co-coordinating among members and organize the project works to achieve the goals.
17183103008	Nusrat Jahan Anka	Front-end Designe	Work with database.
17183103030	Mahmuda Begum	Back-end Programmer	Design the front-end of the project.
17183103044	Nawrin Zaman Prova	Back-end Programmer	Design the front-end of the project.

Gantt chart for our project:

A Gantt chart is a visualization that helps in scheduling, managing, and monitoring specific tasks and resources in a project.

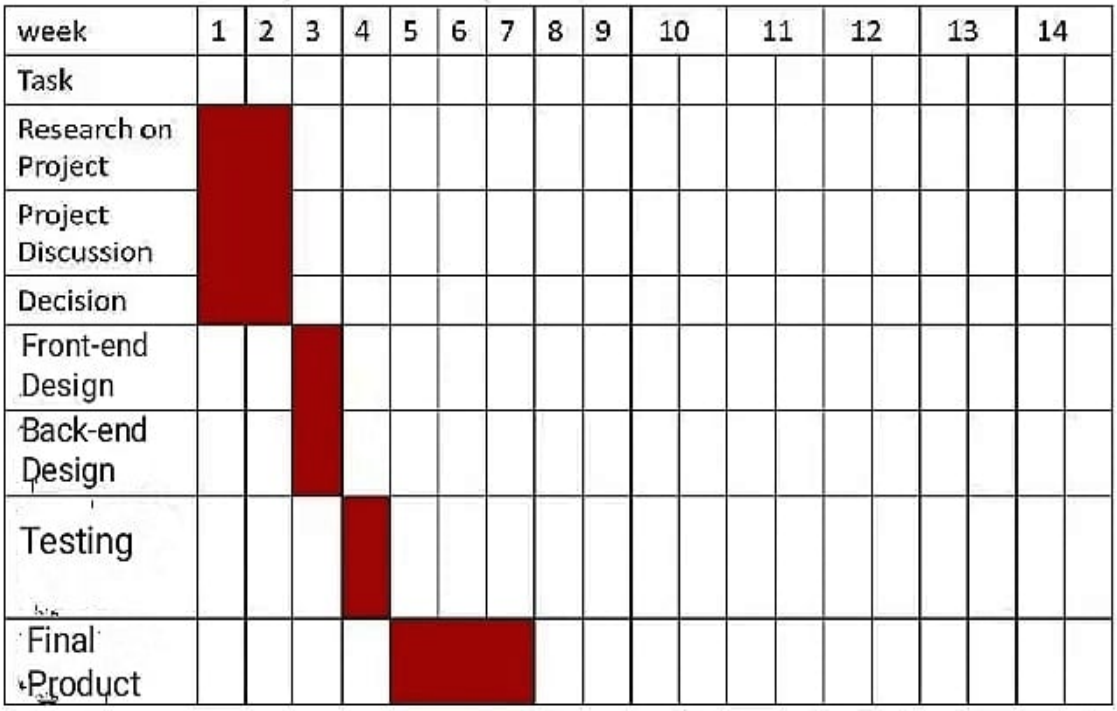

Figure: Gantt chart for our project planning

4.2 Result Analysis

A software system is a platform that allows organizations to manage their business properly. Our system provides customer details, order details, selling details, employees details, etc. It's a secure platform to keep the information safe.

Overall our system works smoothly most of the time. But there are some problems. We are aiming to solve those problems in the near future.

4.3 Application Outcome

One of the main features of our system is managing the inventory of any shop at any time. The Basic Features of our system are -

- This system is for two different users.
- A login option for the customer, employee.
- Insert, delete, search items.

CHAPTER 5

USER MANUAL

5.1 Introduction

The user manual contains all essential information for the user to make full use of the information system. This manual includes a description of the system functions and capabilities, contingencies and alternate modes of operation, and step-by-step procedures for system access and use. This system is really needed for day-to-day managing shops. We tried our best to make it user-friendly. The main reason for choosing this project is to make users' life easier with technology.

5.2 Front-end

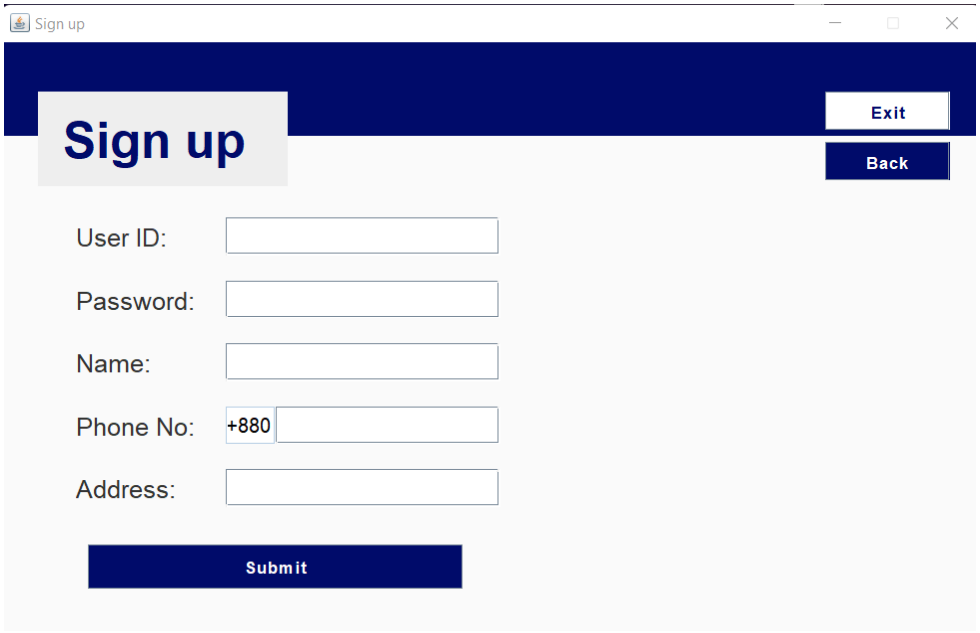

Figure: Signup window for user and employee

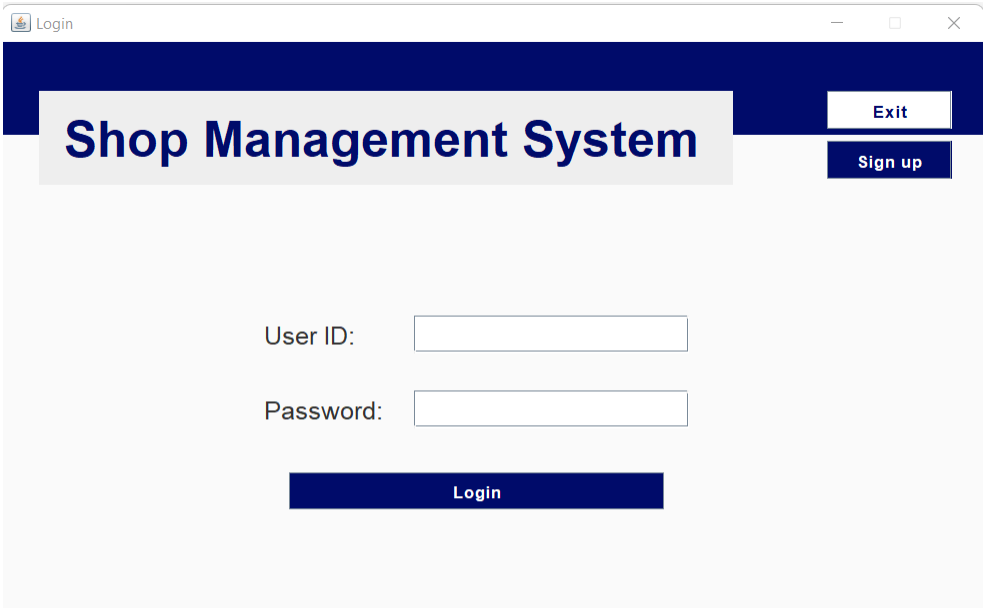

Figure: Login window for user and employee

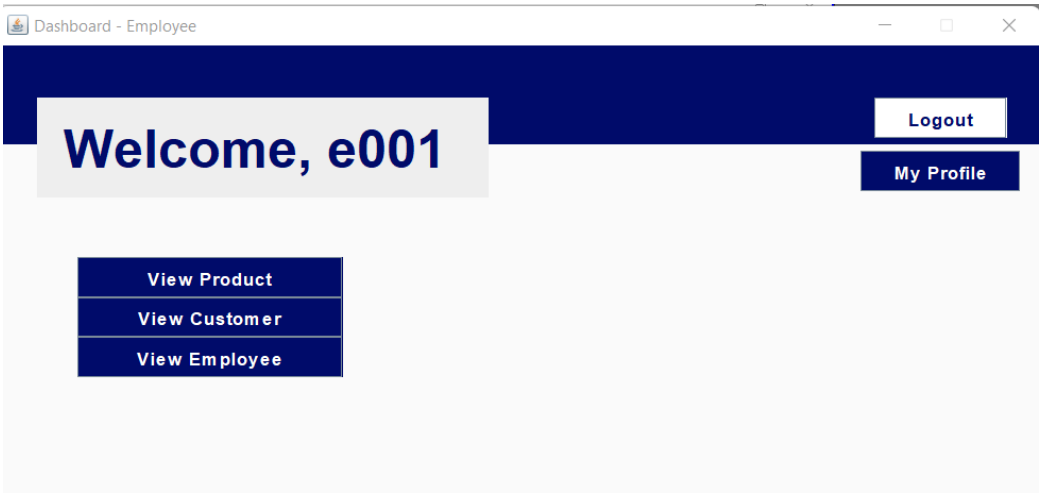

Figure: Dashboard for employee

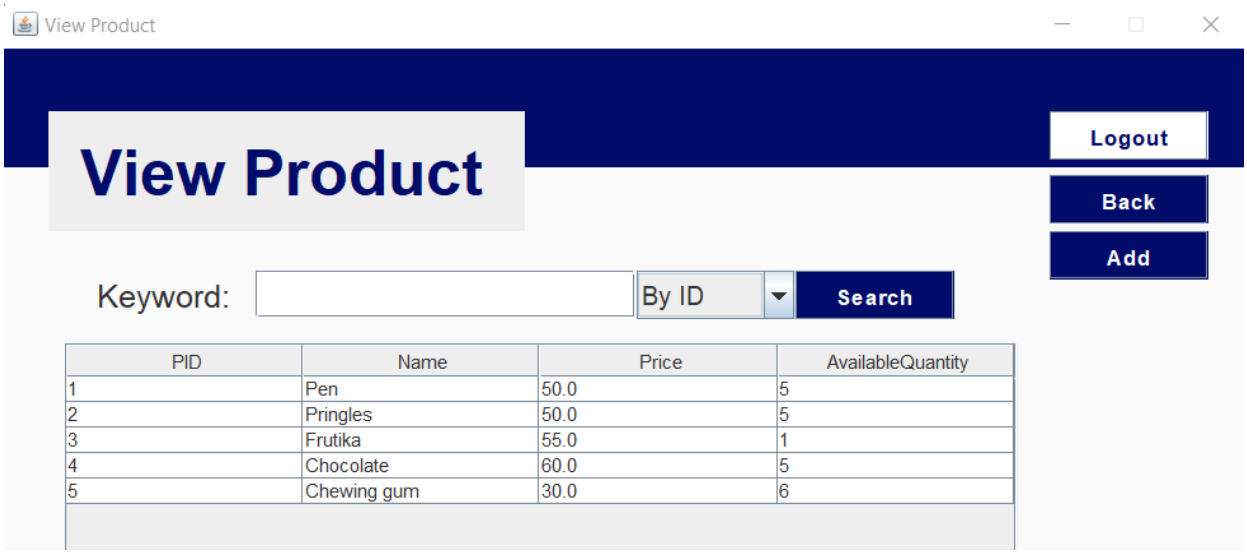

Figure: Product view window for employee

Figure: Add Product window for employee

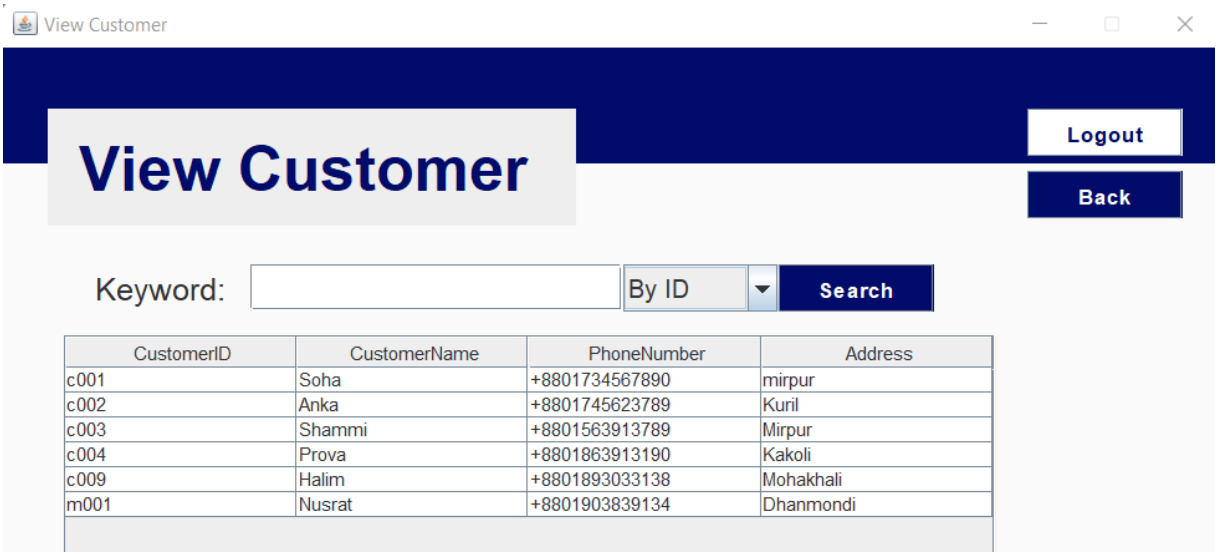

Figure: View Customer window for employee

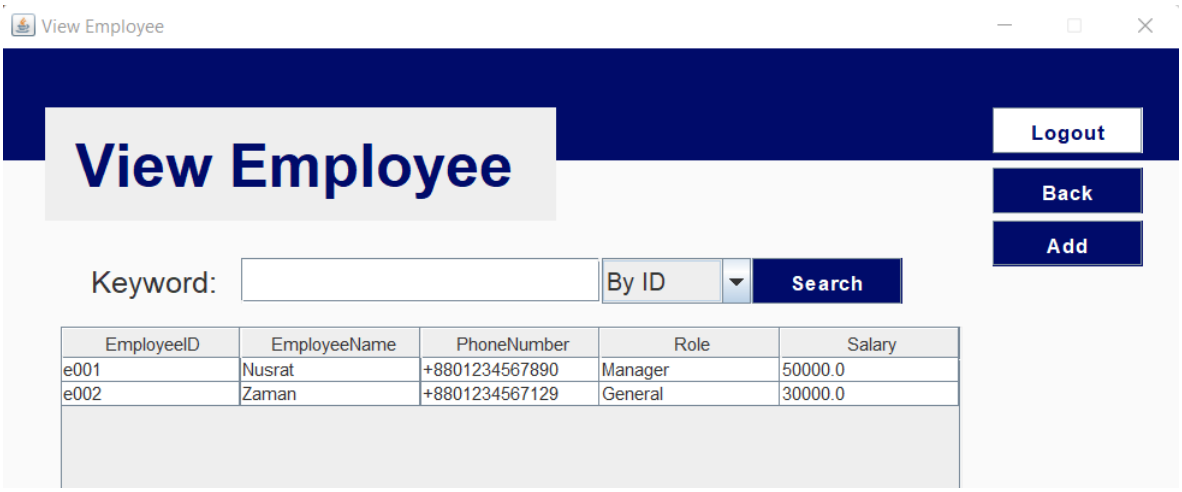

Figure: View Employee window for employee

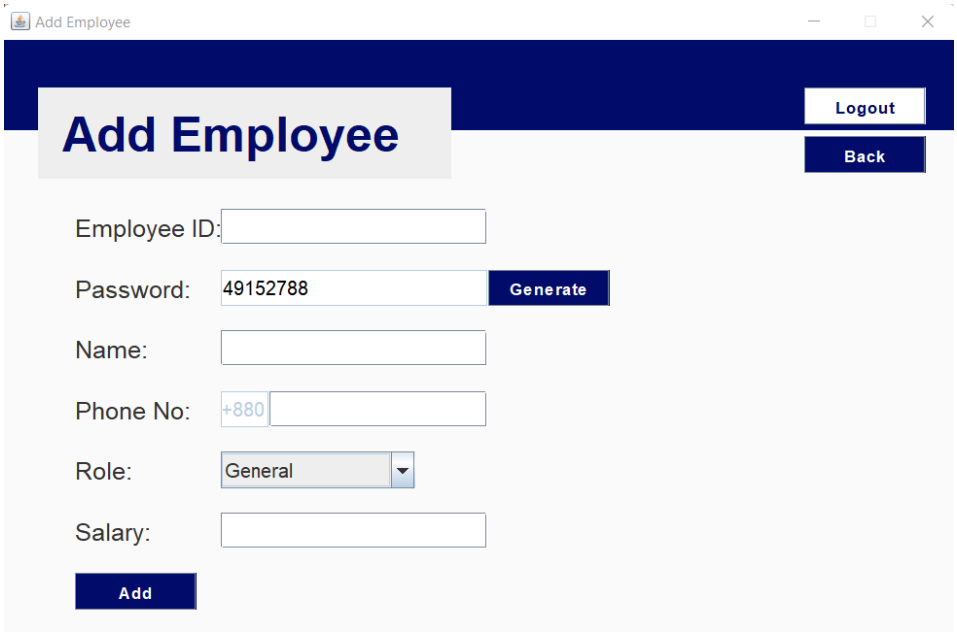

Figure: Add Employee window for employee

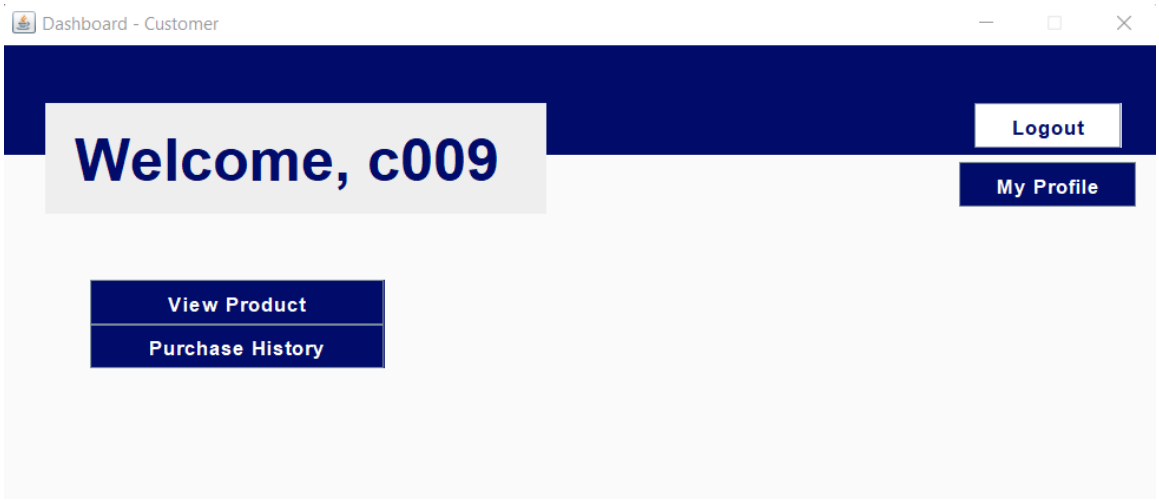

Figure: Dashboard for customer

Figure: My profile window for customer

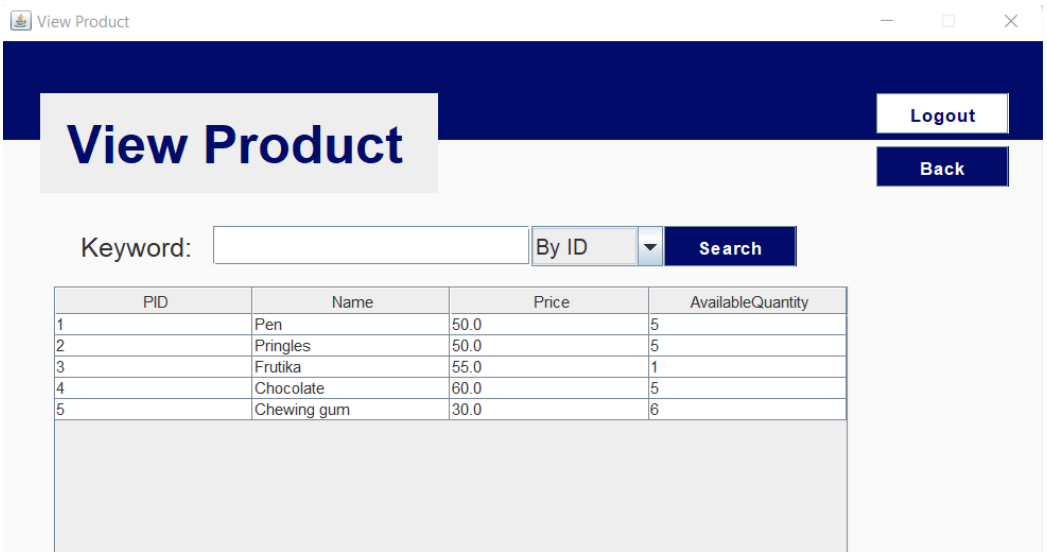

Figure: View product window for customer

5.3 Back-end

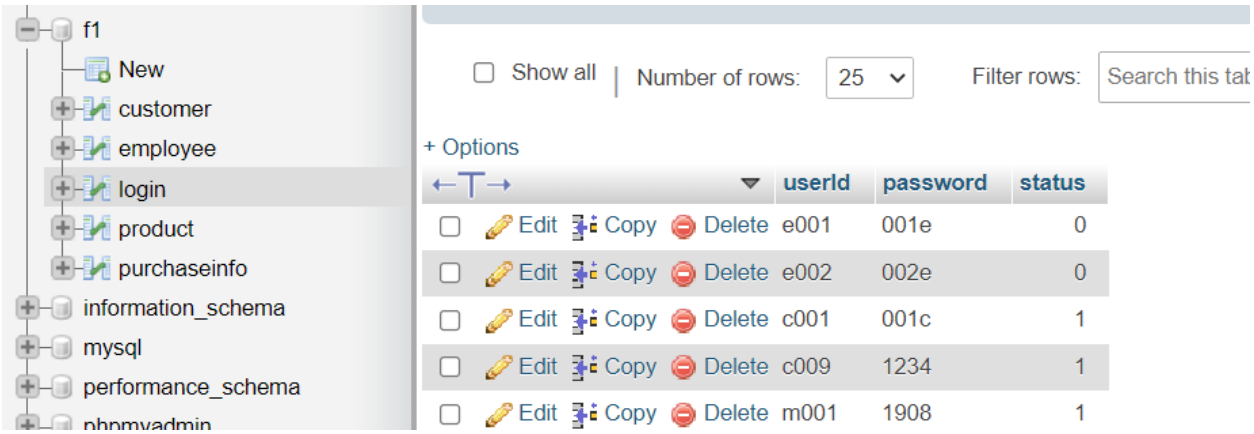

Figure: Data storage

CHAPTER 6

CONCLUSION

6.1 Conclusion and Future Works

The shop management system is a computerized system designed and programmed to deal with day-to-day operations. The program can look after records, databases of purchasing, etc. Nothing is perfect in this world. So, we are also no exception. Although, we have tried our best to present the information effectively, yet, there can be a further enhancement in our system. We have taken care of all the critical aspects, which need to be taken care of during the development of the Project. It's a friendly user system so that users don't feel hassle while using this system.