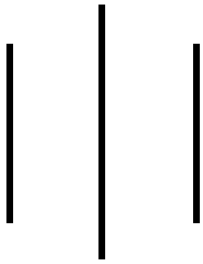
LA GRANDEE INTERNATIONAL COLLEGE

Simalchaur, Pokhara Nepal

Report

On

Book Shop Management System



Submitted to:

Bachelor of Computer Application (BCA) Program

In partial fulfillment of the requirements for the degree of BCA under

Pokhara University

Name:	Course	Semester	P.U. Registration Number
Bishwas Paudel	BCA	4th	2021-01-53-0054
Santosh Banstola	BCA	4th	2021-01-53-0080
Sital Wagle	BCA	4th	2021-01-53-0084

Date: 2023-08-04

Acknowledgement

We have presented this report focusing on the topic “Book Shop management System”. This report has been prepared for partial fulfilment of the requirement for degree of BCA and to have practical experience.

We are heartily thankful to the faculty of IT, LA Grandee international college and our supervisor Er Rishi Saran Khanal for his role to motivate and lead for this report. We obliged towards his constant guidance, supervision and feedbacks which enabled us to prepare a well-executed report.

Further, we express our gratitude to LA Grandee family, classmates, seniors and teachers who have directly and indirectly supported us during our report.

Student's Declaration

We hereby declare that we are the only authors of this work and that no sources other than the mentioned here we have been used in this. We assure you that the work we present here is unique to ourselves and resemblances to another similar project are purely coincidental.

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Bishwas Paudel (2021-1-53-0054)

……..

Santosh Banstola (2021-1-53-0080)

……..

Sital Wagle (2021-1-53-0084)

Program: BCA 4th Semester

Date: 04/08/2023

Supervisor's Declaration

I hereby declare that the project entitled **"Book Shop Management System"** has been carried out under my direct supervision by Bishwas Paudel, Sital Wagle and Santosh Banstola during their fourth semester for the partial fulfilment of the requirements for the degree of **BCA (Bachelors of Computer Application)** program under **Pokhara University**

_____

Er. Rishi Saran Khanal

Date:2023 August 04

Abstract

The Book Shop Management System is a powerful software application built using .NET programming language. It automates various bookshop processes, including inventory management, sales tracking, and customer management. This report highlights the system's features, architecture, and implementation challenges. Leveraging .NET's capabilities, the system enhances productivity, efficiency, and customer satisfaction.

It offers modules for inventory, point-of-sale, customer management, and reporting. The system's development followed a systematic approach, overcoming challenges through best practices and user testing. The Book Shop Management System revolutionizes bookshop operations with its user-friendly interface and robust architecture, benefiting bookshops of all sizes.

Keywords: *bookshop, stationery ,sales*

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List of Abbreviation

- GUI – Graphic User Interface
- DFD – Data Flow Diagram
- ER – Entity Relationship
- VB – Visual Basic
- SQL - Structure Query Language
- SDLC - Software Development Life Cycle

1. Introduction

A bookshop is a retail store that specializes in selling books and other printed materials such as magazines, newspapers, and journals. Book Shop Management refers to the processes and systems involved in effectively running a bookstore. The management of a bookshop involves several tasks, such as purchasing and maintaining an inventory of books, managing sales, handling customer orders and inquiries, and overseeing staff. The proposed project is to develop a bookshop management system that will help manage the inventory, sales, and customer information of a bookshop.

The utilization of MS SQL as the database and Visual Basic as the programming language for the bookshop management system ensures robust data management and a user-friendly interface. This powerful combination enables seamless integration, scalability, and long-term compatibility with industry standards.

2. Problem Statement

After carefully analysis of the project, we observed that the following problems are mainly encountered by different book shops.

1. The present method of Book shop management system is mainly based on manual recording,
2. The present system makes use of small or no database for recording of customer and staff information.
3. Due to lack of comprehensive database, accountability is usually very difficult,
4. The present system is time consuming,
5. Owing to the paper and pen method of recording information customer may not give out its full information needed at a particular time.

3. Objectives

The main objectives of developing this system are:

1. Efficient inventory management

2. Streamlined sales tracking

3. Enhanced customer data management

4. Background Study

Manual management processes in bookshops can be time-consuming and error-prone, leading to inefficiencies and customer dissatisfaction. A Book Shop Management System using .NET programming language provides an automated solution to streamline inventory management, point-of-sale transactions, customer management, and reporting.

By leveraging the capabilities of .NET, the system improves efficiency, reduces errors, and enhances customer satisfaction, resulting in a more streamlined and productive bookshop operation.

5. Methodology

For the development of Book Shop Management System software we use the iterative model

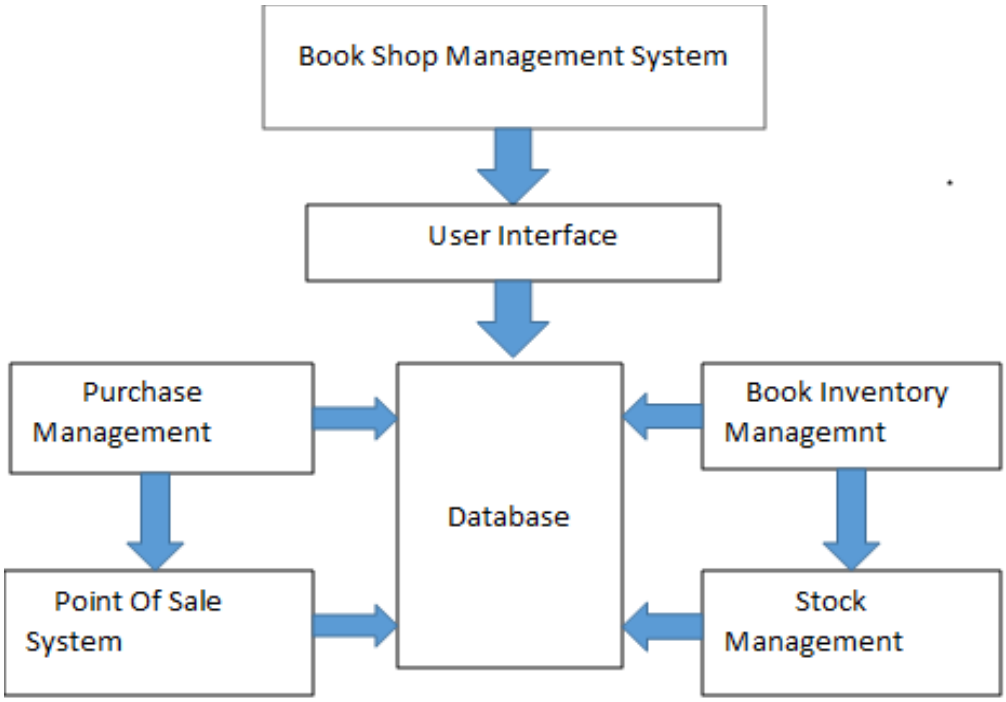

Figure 1 Block Diagram of the system

Iterative model is one of the popular model for development of projects. Iterative model starts with a simple implementation of a subset of the software requirements and iteratively enhances the evolving versions until the full system in implemented.

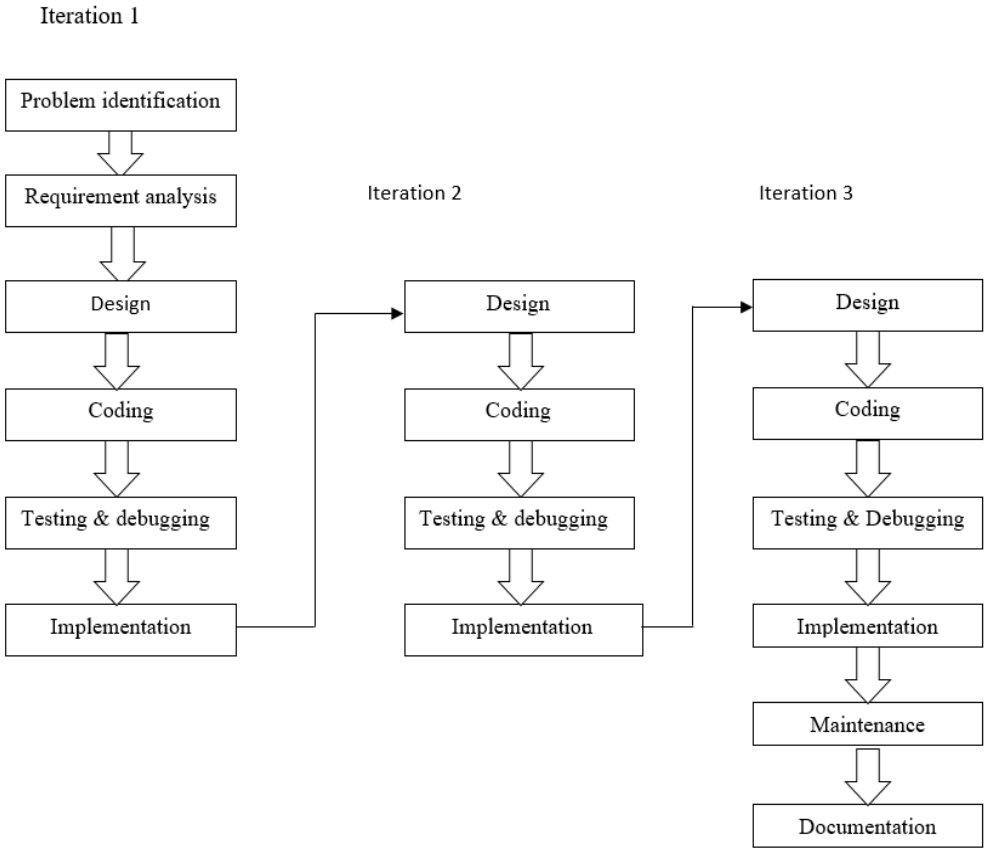

Figure 2 : Iterative Model

In iterative model there are different phases of SDLC which is described below:

5.1. Problem Identification:

In this first phase of SDLC we identified problems, opportunities and objectives. This stage is critical to the success of the rest of the project so we first identified what were the problems or what we can modify in our BMS in comparisons to the previous software.

Problem Identification for Book Shop Management System:

1. Manual inventory management processes leading to stock-outs, overstocking, and inefficient stock replenishment.
2. Inefficient sales tracking hindering transaction processing, accurate sales reporting, and timely inventory updates.
3. Limited customer data management impacting personalized recommendations, targeted marketing, and effective customer relationship management.
4. Insufficient reporting and analytics capabilities hindering data-driven decision-making.
5. Complex user interface impeding user adoption and efficiency.
6. Lack of maintenance and support provisions affecting system upkeep and issue resolution.

5.2. Requirement Analysis:

Requirement analysis is the phase of defining the expectations of the users from the software being built or modified. It involves all the tasks that are conducted to identify the needs of different stakeholders. Requirement analysis means to analyze, document, validate and manage software requirements.

Requirements Analysis for Book Shop Management System:

1. User Management
2. Inventory Management
3. Point-of-Sale (POS) Functionality
4. Customer Management
5. Reporting and Analytics

6. User-Friendly Interface
7. System Maintenance and Support

5.3. Design:

The new system must be designed on the basis of the user requirements and the detailed analysis of the new system. In the design phase of SDLC process continues from the what question of the analysis phase. In this system we use tools like DFD, E-R diagram and class diagram and build a conceptual model of the system.

5.3.1 Data Flow Diagram (DFD)

The diagram that allows you to model how data flow through an information system, the relationships among the data flows, and how data come to be stored at specific location is known as DFD. It also shows the process that changes or transforms data. A data flow diagram that represents a system's major processes, data flows, and data stores at a high level of details is called first level DFD. Here, we design the first level DFD

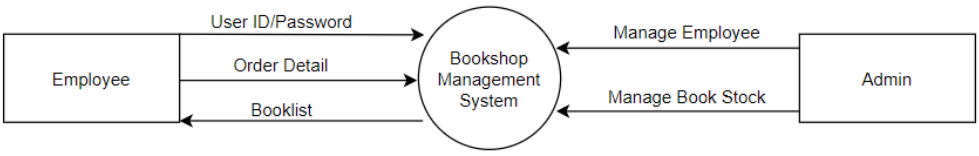

Figure 3: Context level dfd

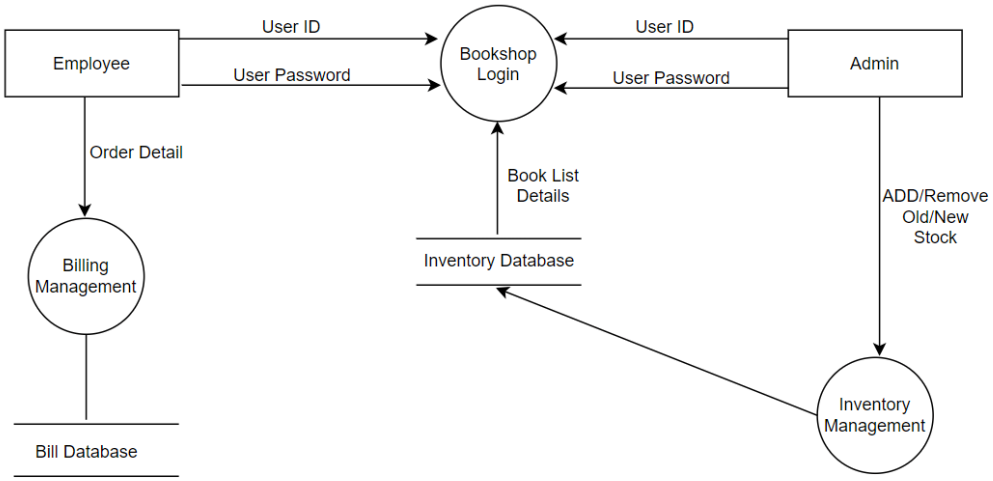

Figure 4 : level 1 DFD

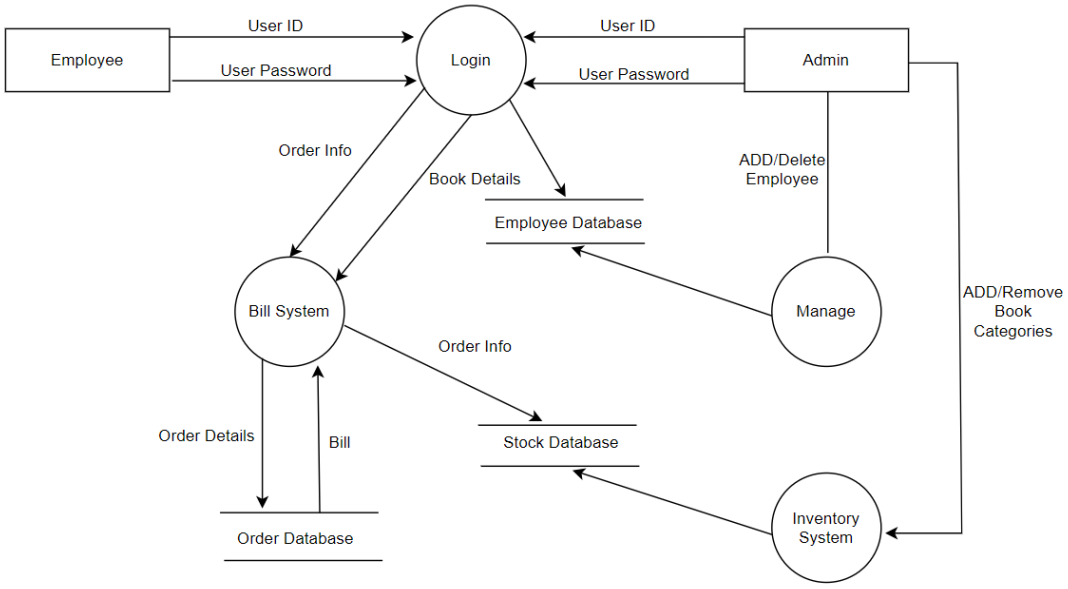

Figure 5: Level 2 DFD

5.3.2 ER Diagram (ERD)

ERD is the entity relationship diagram that based on notation of teal world entities and relationships among them. It is used generally for the conceptual design of database. In the given figure, there are eight entities, one relationship and some attributes. The relationship between admin and user is manage information and seladd add, update, delete users. The cardinality ratio between users and places is many to many (M: N).

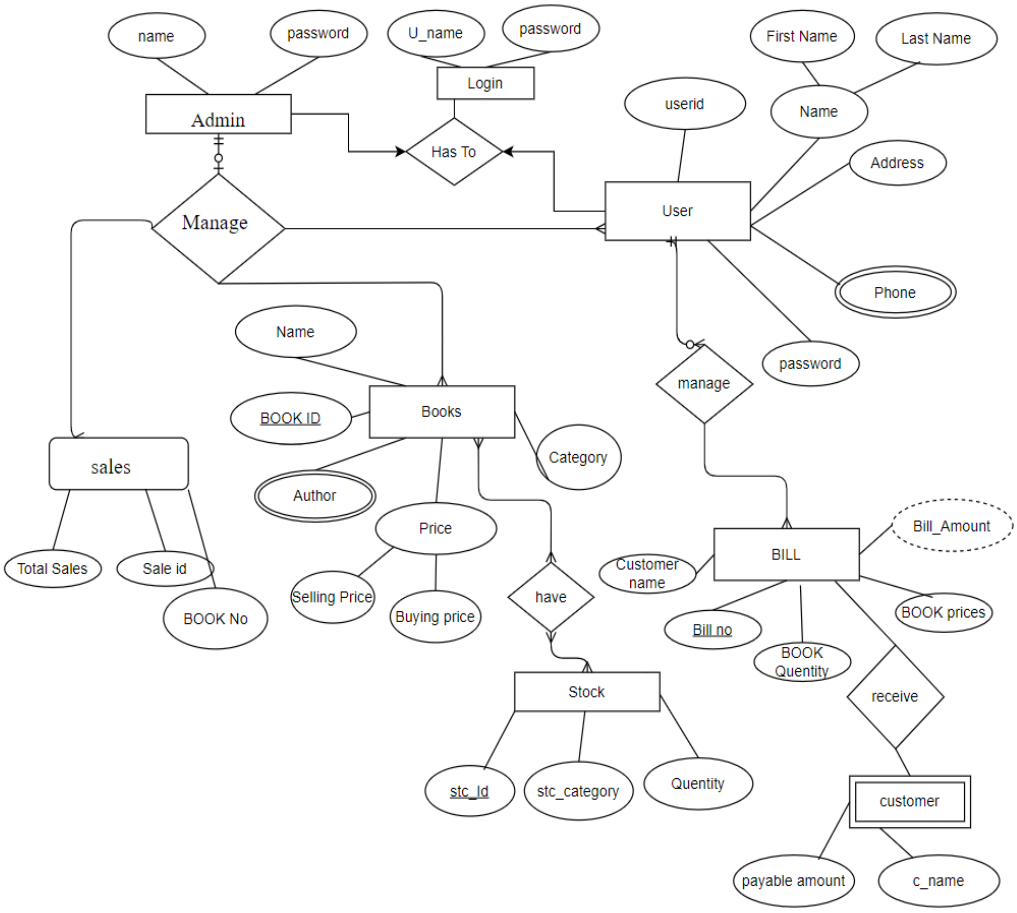

Figure 6: ER Diagram

5.3.3 Class Diagram

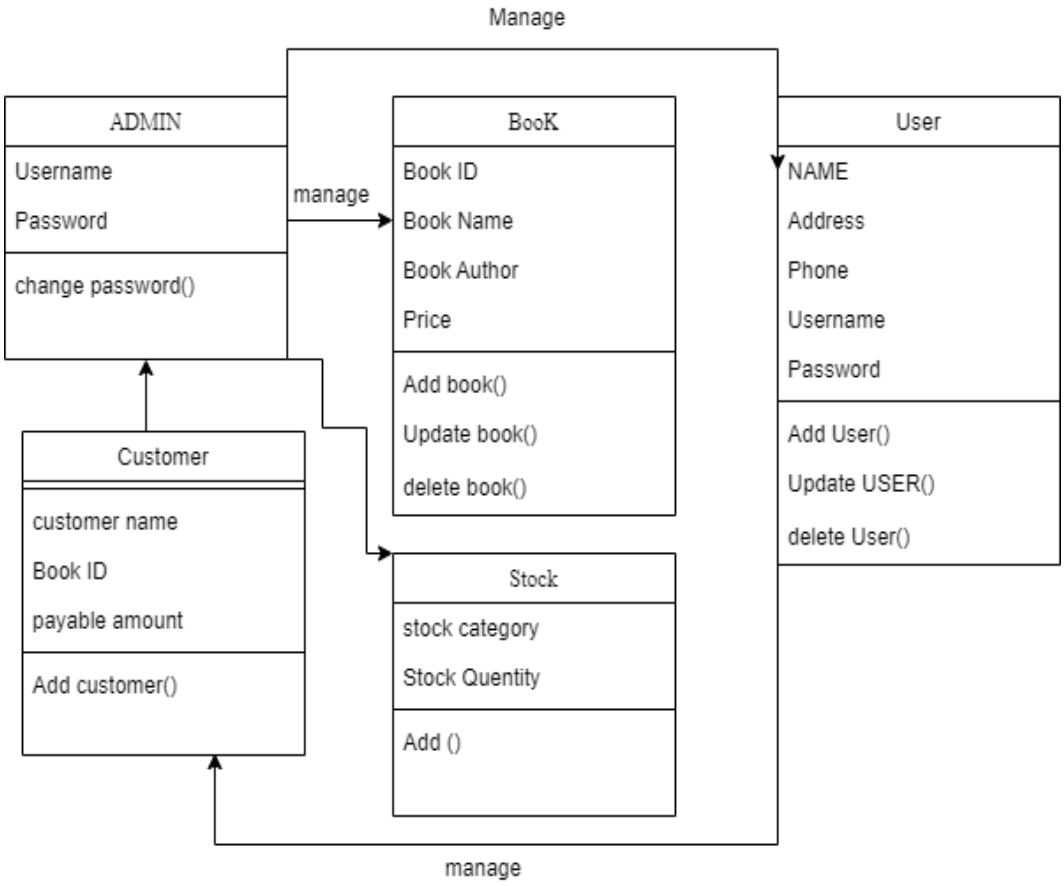

Figure 7 : Class Diagram

5.3.4 User Interfaces Design

- Login page:

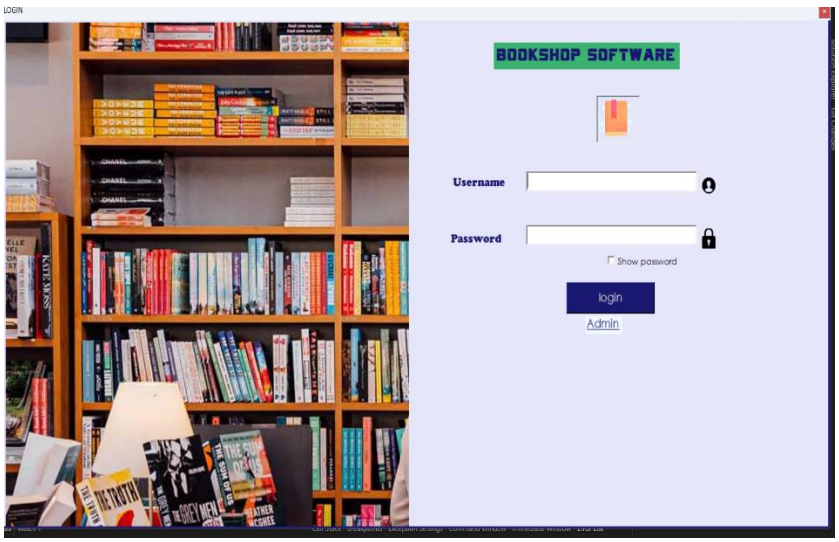

Figure 8 : login Page For User

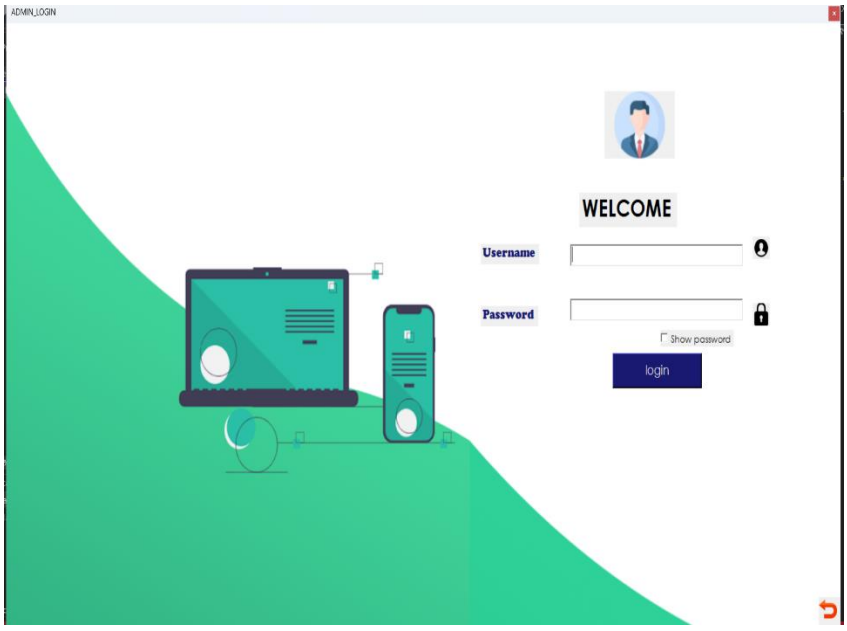

Figure 9 : Login Page For Admin

- ADD pages:

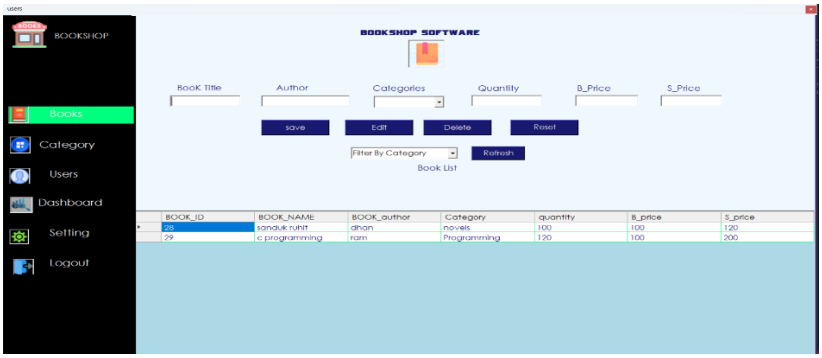

Figure 10 : Book Add Page

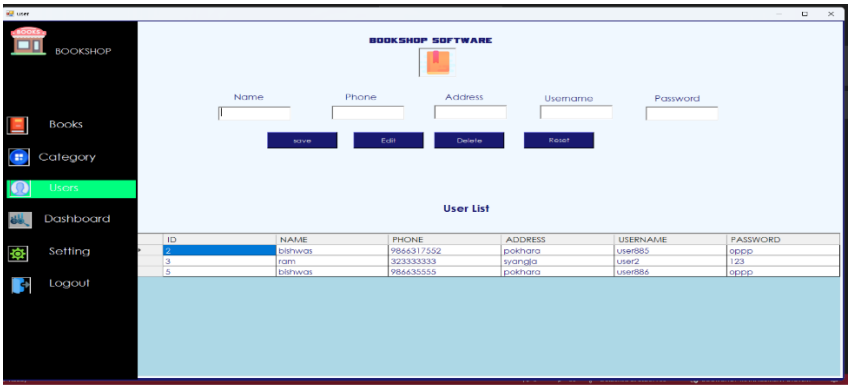

Figure 11 : User Add Page

- Order Pages

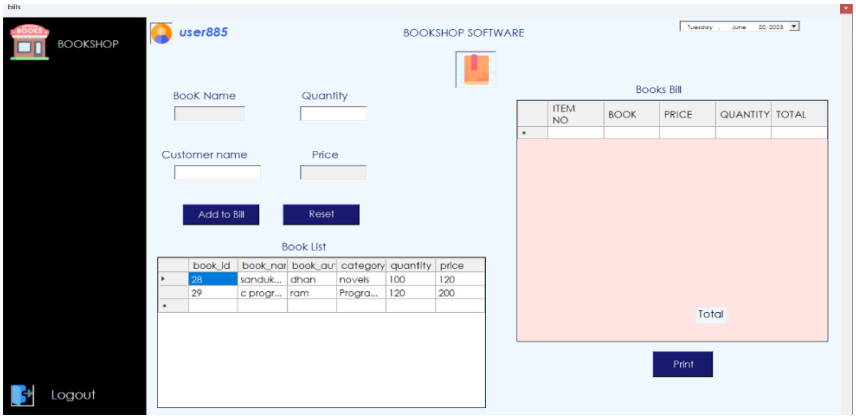

Figure 12 : Order and Bill print Page

- Dashboard page

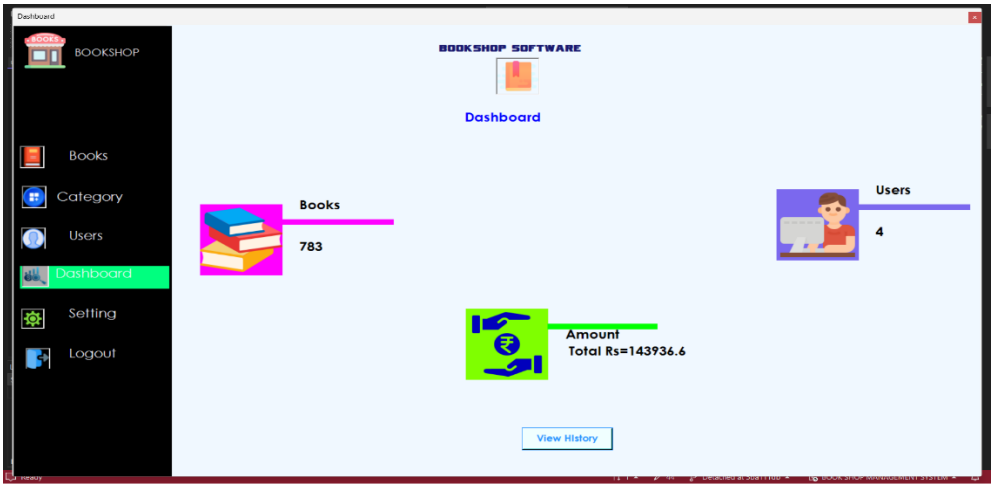

Figure 13 Dashboard

5.4. Coding:

It is an important phase where the defined procedures are transformed into control specifications by the help of a computer language. For the implementation of software right programming language should be chosen so for our software we are using VB.NET programming language.

5. 5. Testing & Debugging:

Before implementing the new software into operations a test run of the system is done removing all the bugs by debugging it. After codifying the whole program of the system, a test plan should be developed and run on a given set of test data which output should match the expected result.

5.6. Implementation:

After having the user acceptance of the new system developed, the implementation phase begins. Implementation is the stage of a project during which theory is turned into practical

6. Future enhancements

Future enhancements for a bookshop management system:

1. Profit Calculation:

    - Improve profit tracking and analysis with advanced tools.

2. Online System:

    - Enhance the online ordering and payment process.

3. Book Return Function:

    - Streamline the book return process for better customer experience.

4. User Interface:

    - Update and refine the user interface for simplicity and attractiveness.

7. Conclusion

In conclusion, the development of a Book Shop Management System using .NET programming language offers a comprehensive solution for bookshops to manage their inventory, sales, and customer data more efficiently. The system addresses the challenges of manual processes, streamlines operations, and enhances overall productivity.

By automating inventory management, implementing point-of-sale functionality, and the system improves accuracy, reduces errors, and enhances customer satisfaction. Overall, the Book Shop Management System provides a reliable and efficient solution for bookshops, empowering them to optimize their operations and deliver an enhanced experience to their customers.

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