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Proposal

On

Book Store Management System

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ABSTRACT

Our project is aimed to develop our ready-to-go Book Store Management System developed in the C programming language. The design of this project is to streamline the management of a book store, streamlining the management of products and transactions. The system focuses on the efficient and user-friendly interface for the store keeper to perform essential operations such as adding, updating, and deleting product details, tracking transactions, maintenance schedules and costs, The program utilizes file handling to store and retrieve data, ensuring consistent reliability. Key feature includes functionality to search for the available books, sales history and the dealer list. The project emphasizes on modular programming, with functions organized for clarity and reusability. By automating routine tasks with this Book Store Management System, a proper experience can be achieved through enhanced operational efficiency and reduced manual errors for the said store keeper. By applying the concepts of core C programming such as file handling and control flow, we can address the real-world challenges in handling a book store through this project.

Keyword(s): Modular Programming, Book Store Management System, catechisms, almanacs, Gospels, Missals

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List of abbreviations

BSMS	Book Store Management System

1. INTRODUCTION

1.1 Background

Book stores often deal with volumes of books being brought in and traded. This requires intensive amount of time dedicated to record-keeping of each and every functionality that is happening in the store's day to day activities. But in the modern world, even with the advancement of technologies, traditional methods of record-keeping, such as ledgers and spreadsheet are still common, consequently killing time due to errors and inefficiency. A need for automated systems that aid to the said issues have been a must in today's world focusing on small-medium sized bookstore to enterprises as well. A BSMS is a software solution dedicated to address those very challenges by automating key store activities such as book cataloging, record, product records and sales tracking. By digitizing those processes, a BSMS reduces manual effort alongside with better organization, faster access to information and overall improved experience. This project focuses on using the C programming language specifically using file handling, as C is efficient, has low-level control and portability making it an ideal choice for building a compelling system.

1.2 Motivation

As our first project on C programming language, we as a group decided to create this straightforward yet purposeful application. A real-world necessity was also observed in numerous situations where automation was deduced to be a viable factor to improve efficiency in these book stores. Alongside with learning and reinforcing our concepts of the programming language for a strong foundation, we looked out to conform to those ideas. Since the chance we were receiving to create for benefactory causes is the main idea, we believe that this system will prove to be a strong example to set up confidence for the upcoming challenges in the later years to come.

1.3 Problem Definition

The said project aims to create efficient method of keeping records which involve sales, maintenance, customers and overall book store functionality.

1.4 Project Objectives

The objectives are as follows:

- To automate the manual processes of book store management,
- To maintain database of products specifically books and subsidiary stationary items,
- To facilitate the employees in their specified tasks,
- To generate reports on book availability, sales and maintenance.

1.5 Project Applications

Our proposed project put forward for following applications:

- Strengthening the foundation of programming,
- Developing flexible and easy to maintain application with reliability and efficiency,
- Maintaining the versatility of the program.

2. LITERATURE REVIEW

The selling of books dates back to ancient times. The founding of libraries in c.300 BC stimulated the energies of the Athenian booksellers. In Rome, toward the end of the republic, it became the fashion to have a library, and Roman booksellers carried on a flourishing trade. In Rome, toward the end of the republic, it became the fashion to have a library, and Roman booksellers carried on a flourishing trade. The spread of Christianity naturally created a great demand for copies of the *Gospels* and other sacred books, and later on for *missals* and other devotional volumes for both church and private use. The modern system of bookselling dates from soon after the introduction of printing. Through the new mechanized process for printing, books became more affordable.[11] By the nineteenth century, the model of bookselling as we know it began to emerge. A professional group of booksellers in Leipzig decided to form their own association in 1824, and in 1825 the *Börsenverein der Deutschen Buchhändler zu Leipzig* [German] became the first group to publish outside of the printer's guilds, leading to more people joining the profession without needing to be attached to a guild. The earliest printers were also editors and booksellers; but being unable to sell every copy of the works they printed, they had agents at most of the seats of learning, such as Anton Koberger, who introduced the art of printing into Nuremberg in 1470[1].The most common types of books printed in large quantities were able to be cheaply produced like *catechisms* and *almanacs* and often not bound at all. It became the foundation for modern book sales and policies such as *copyright infringement* were born. Bookstores often sell other printed matter besides books, such as newspapers, magazines, and maps; additional product lines may vary enormously, particularly among independent bookstores. Colleges and universities often have bookstores on campus that focus on providing course textbooks and scholarly books and also sell other supplies.[2]

Learning from the above exquisite history regarding how its beginning of flourishment, Modern book-selling and store-keeping has changed dramatically with the advent of the computers. The best way to maintain, organize, and handle countless books systematically is to implement a book store management system application to ease the process. A book store management system can prove to be viable for said activities. It tracks the records of the books that include its author, price, distributor, sales being produced and overall maintenance records as well. We can find books in an instant that we have in our store, look up activities happening in our stores by managing all the data efficiently and orderly using this system. The purpose of a book store management system is to provide instant and accurate data, thereby saving a lot of time and effort.

3.PROPOSED SYSTEM ARCHITECTURE

The different blocks of the system architecture are explained below:

3.1 Block Diagram or System Architecture

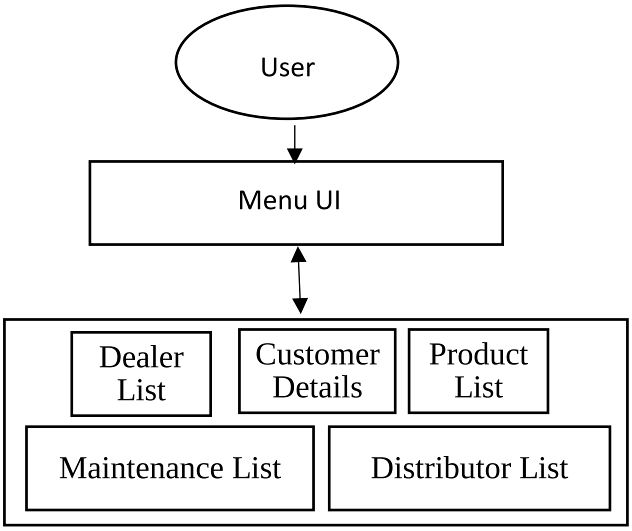


Fig 3-1: Block Diagram of the Application

3.2 Parts of the Program

3.2.1 Menu UI

The home page of the application has the title “Book Store Management System” and the menu which shows login credentials for user to complete their respective job on the computer.

3.2.1.1 Store Keeper Login

The store keeper login menu requires the login credentials which should be filled up by the respective admin to do the store keeping activities. The store activities are to be decided according to the admin’s wish and necessities.

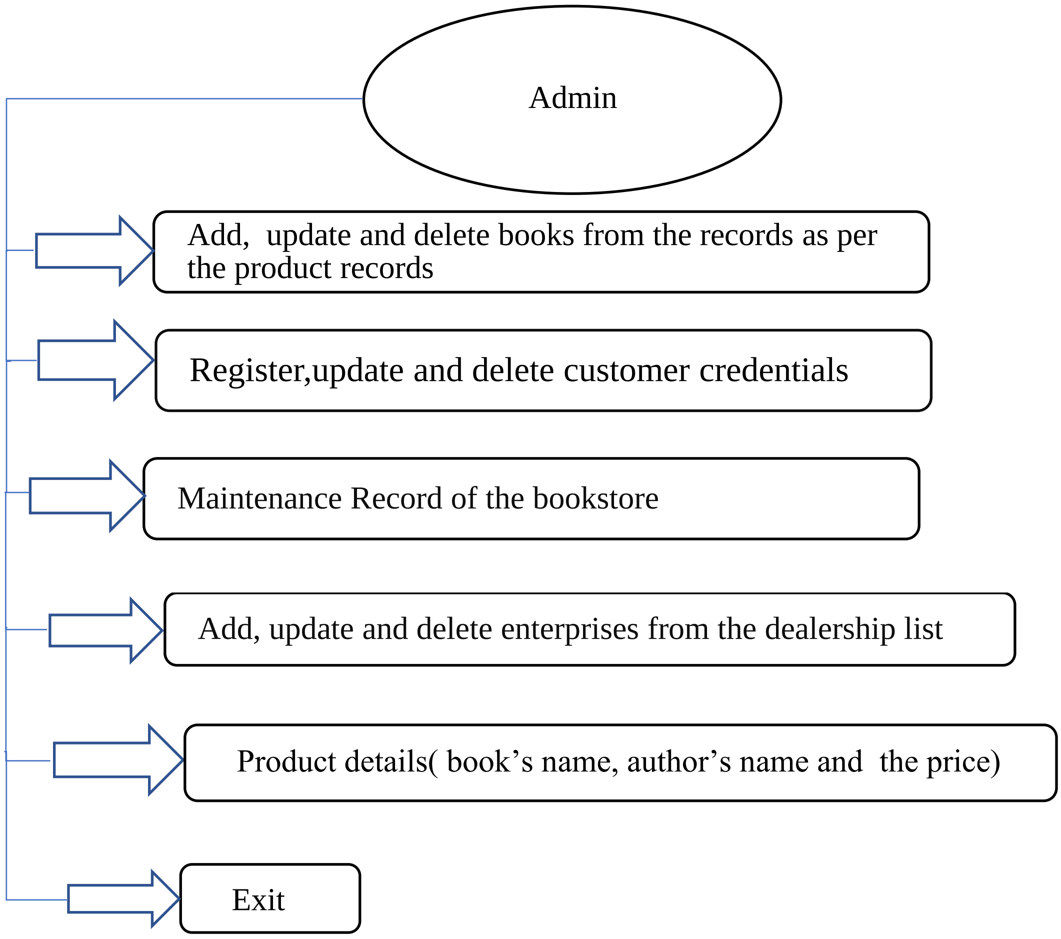

Admin
Add, update and delete books from the records as per the product records
Register,update and delete customer credentials
Maintenance Record of the bookstore
Add, update and delete enterprises from the dealership list
Product details(book's name, author's name and the price)
Exit

Figure 3-2 Store Activity Interface

3.2.1.2 Exit

It exits the program after the command from the user.

3.3 Tools and Environment

During the making of the whole project, many tools were used as listed below:

3.3.1 Development Tools Used

- **GitHub:** It is a proprietary developer platform that allows developers to create, store, manage, and share their code. It uses Git to provide distributed version control and GitHub itself provides access control, bug tracking, software feature requests, task management, continuous integration, and wikis for every project.

- **Visual Studio Code**: It is an integrated development environment developed by Microsoft for Windows, Linux, macOS and web browsers.[9][10] Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded version control with Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add functionality.

4. METHODOLOGY

In our project we used various ways to gather our data and analyze the relevant topics covering the area of file handling, header files and arrays.

4.1 Header Files and Namespaces

Header files contains set of predefined library functions. In this project, we have used several header files as per convenience that are listed below:

1. string.h
2. stdio.h
3. conio.h

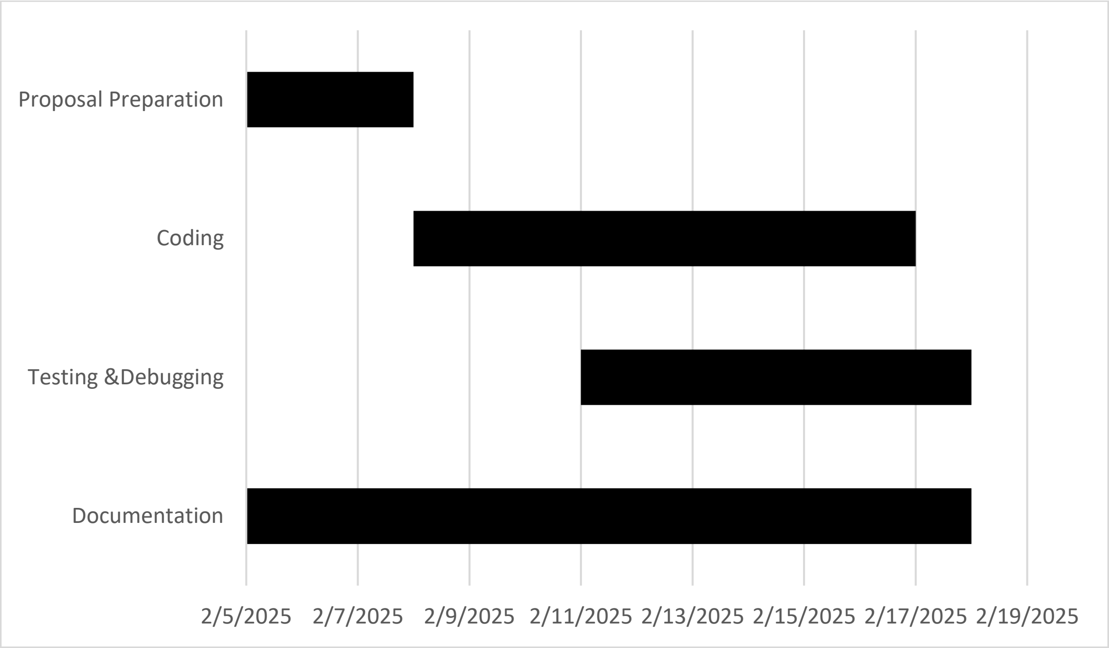
4.2 Functions and Conditional Statements

Functions are used in integral part of this project development. Most of the activity that are presented in the software heavily relies on functions and the inputs that are given from the user using this particular application.

Likewise, conditional statements are also profoundly used in this application. The required data which is an absolute must and conform to the title that is supposed to be stored is how we can store the necessary data. The application becomes efficient and correct as we can filter what actual data is presented in the input with the help of conditional statements.

5. TIME ESTIMATION

Table 5-1: Time Estimation Gantt Chart



6. FEASIBILITY ANALYSIS

The main purpose of our application is to provide efficiency in a low cost. Below are the aspects of the feasibility analysis.

6.1 Usage

We expect our project to be capable of following usages:

- Automate the store activities to ease the process resulting in increased efficiency, productivity regarding data storage, user experience and better resource management,
- Develop sustainable environment without the need of papers, fostering to clean environment,
- To help in maintaining records of all transactions, useful for auditing and accountability.

6.2 Cost

In terms of expenditure, due to compilers like GCC being free and opensource, most of cost goes towards developing. But if complex system was to be integrated, adding those features will definitely need much more investment.

6.3 Hardware Requirement

- Intel i3 2.8 Ghz Processor and above
- 4GB DDR3 RAM and above
- 125GB HDD hard disk and above

6.4 Software Requirement

- Windows OS(7 or higher)
- Intel HD graphics driver

REFERENCES

[1] https://en.wikipedia.org/wiki/History_of_bookselling

[2] https://en.wikipedia.org/wiki/Bookselling