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COURSE CODE: ITU 07312

COURSE NAME: PROGRAMMING IN JAVA

PROJECT NAME: READING PROGRESS TRACKER APPLICATION

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EXECUTIVE SUMMARY

The Reading Tracker Application was developed as an interactive desktop application aimed at enhancing the reading experience and tracking user progress. Built using Java Swing, the application provides an intuitive interface that allows users to manage their reading activities efficiently. The project leverages a combination of robust features, a user-friendly design, and efficient data management capabilities to meet the needs of avid readers and book enthusiasts.

The application integrates functionalities such as adding, editing, and deleting book entries, allowing users to customize their library seamlessly. Each book entry contains details like title, author, total chapters, cover image, and associated PDF files for easy access. The system utilizes a dynamic table to display the book collection and incorporates an action column with interactive buttons for editing and deleting entries. To ensure data integrity, the delete functionality prompts users with a confirmation dialog, preventing accidental deletions.

Furthermore, the application offers a visually appealing and organized layout, enhanced by custom cell rendering for tables, consistent padding, and a modern color scheme. Key components include an "Add Book" dialog for efficient data entry, file choosers for selecting images and PDFs, and a "Clear All" feature for resetting the collection. All interactions are designed to provide a seamless user experience while maintaining flexibility for future enhancements.

This project demonstrates the application of core Java programming skills, effective use of the Swing framework, and an understanding of user-centered design principles. The Reading Tracker App stands as a robust solution for managing personal book collections and monitoring reading progress in a structured and engaging manner.

1 CHAPTER ONE

1.1 INTRODUCTION

The Reading Tracker Application is a desktop application designed to enhance the reading experience by providing users with a simple yet powerful tool to manage their personal book collections and monitor their reading progress. With the increasing popularity of digital reading and the need for better organization, this application addresses the challenge of keeping track of reading goals while maintaining a seamless and enjoyable user experience.

Built using Java Swing, the Reading Tracker App combines modern design principles with core Java programming to deliver a user-friendly interface. Users can perform essential tasks such as adding books with relevant details, editing existing entries, and deleting books they no longer wish to track. The application also supports the inclusion of multimedia elements like cover images and book PDFs, providing a comprehensive solution for book management.

The project aims to showcase the versatility and practicality of Java Swing for desktop application development while addressing real-world needs. By leveraging techniques like dynamic table rendering, interactive buttons for editing and deleting entries, and intuitive dialogs for data entry, the application demonstrates an emphasis on functionality and usability.

1.2 PROBLEM STATEMENT

In today's digital age, readers often face challenges in managing their personal libraries and tracking their reading progress effectively. Many individuals struggle to keep an organized record of books they own, have read, or plan to read. Additionally, existing solutions often lack user-friendly interfaces, customization options, or features tailored to personal reading habits.

1.3 OBJECTIVES

To address the challenges of managing reading materials effectively, the following objectives guide the development and implementation of the **Reading Tracker Application**:

1.3.1 Main Objective

To develop a user-friendly and visually appealing application that allows users to manage their reading progress, organize their book collections, and track key details like titles, authors, chapters, and associated resources effectively.

1.3.2 SPECIFIC OBJECTIVES

- To design a system.
- To enable users to monitor their reading progress.
- To incorporate an intuitive interface.
- To ensure data persistence.

1.4 SYSTEM REQUIREMENTS

1.4.1 FUNCTIONAL REQUIREMENTS

- The system must allow users to Manage Books.
- The system must track the user's progress based on chapters read.
- The system must perform validation and Error Handling
- The system must allow users to upload images for book covers and PDFs for book content.
- The system must store and retrieve uploaded files correctly.

1.4.2 NON-FUNCTIONAL REQUIREMENTS

- Usability
- Performance
- Reliability
- Compatibility
- Security
- Maintainability

2 CHAPTER TWO

2.1 FEATURES IMPLEMENTED

- **Splash Screen**

This is the initial screen displayed when launches the Reading Tracker Application.

Figure 1: Splash Screen

- **Main Screen Layout**

Incorporating book management features, the main screen will be updated to include options for adding, editing, and clearing books.

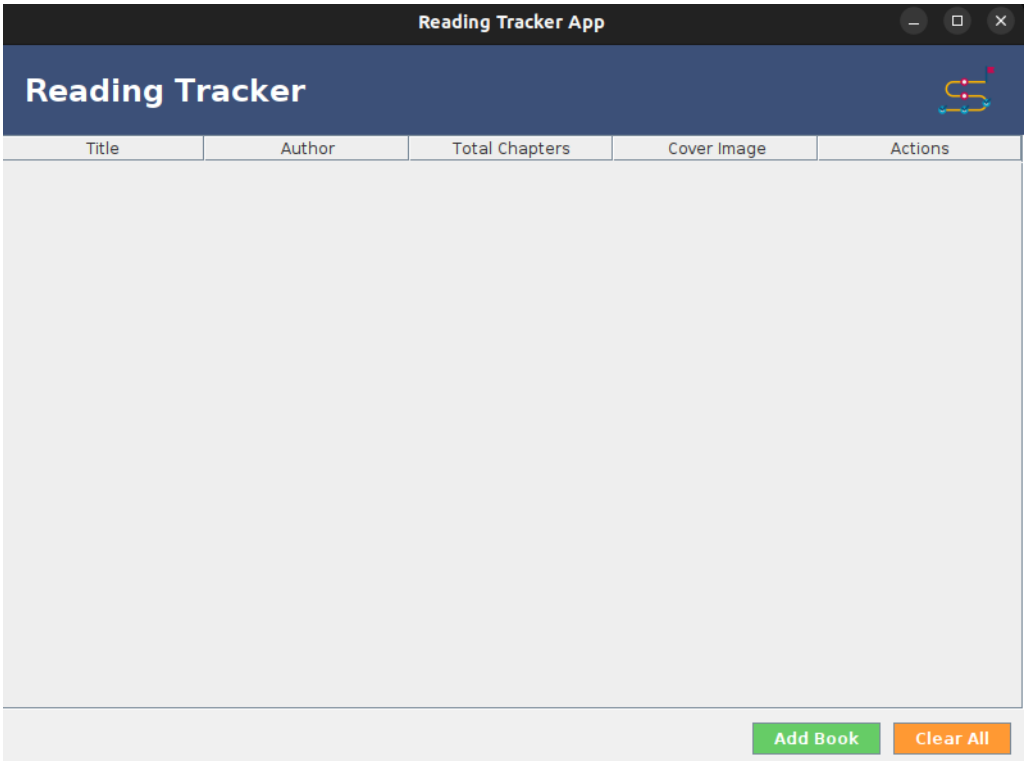

Figure 2: Main Screen

- **Books Overview**

The books will now display additional options for editing or deleting them.

Figure 3: Books Views

- **Add Book Screen**

The Add Book screen allows users to input new book details into the application. It includes input fields, a save button, and validation to ensure the data is accurate.

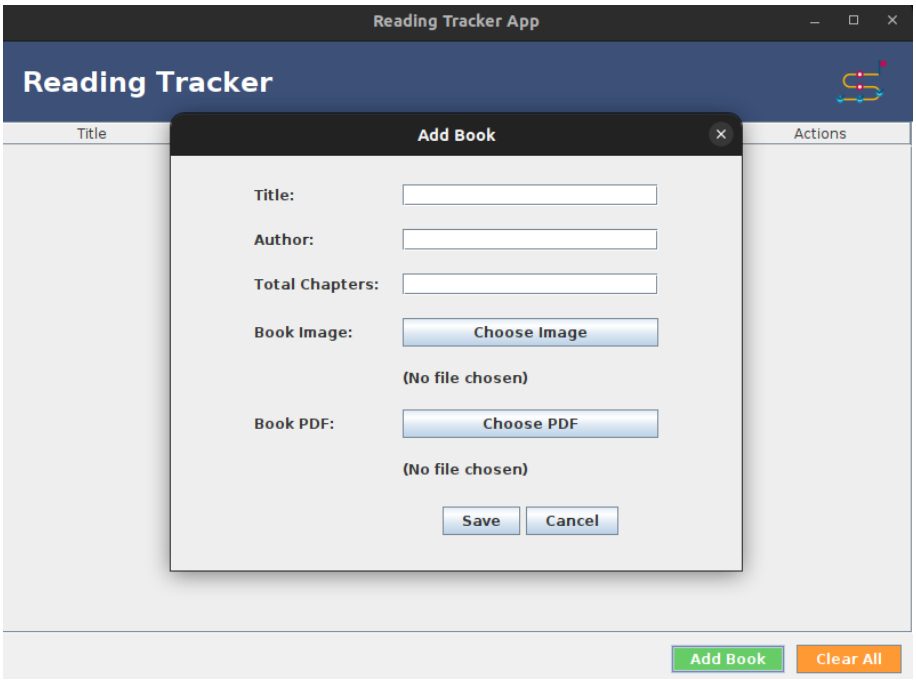

Figure 4: Add Books

- **Edit Book Screen**

The Edit Book screen is for users who want to update the details of an existing book. It is similar to the Add Book screen but pre-populates the fields with the current information of the selected book.

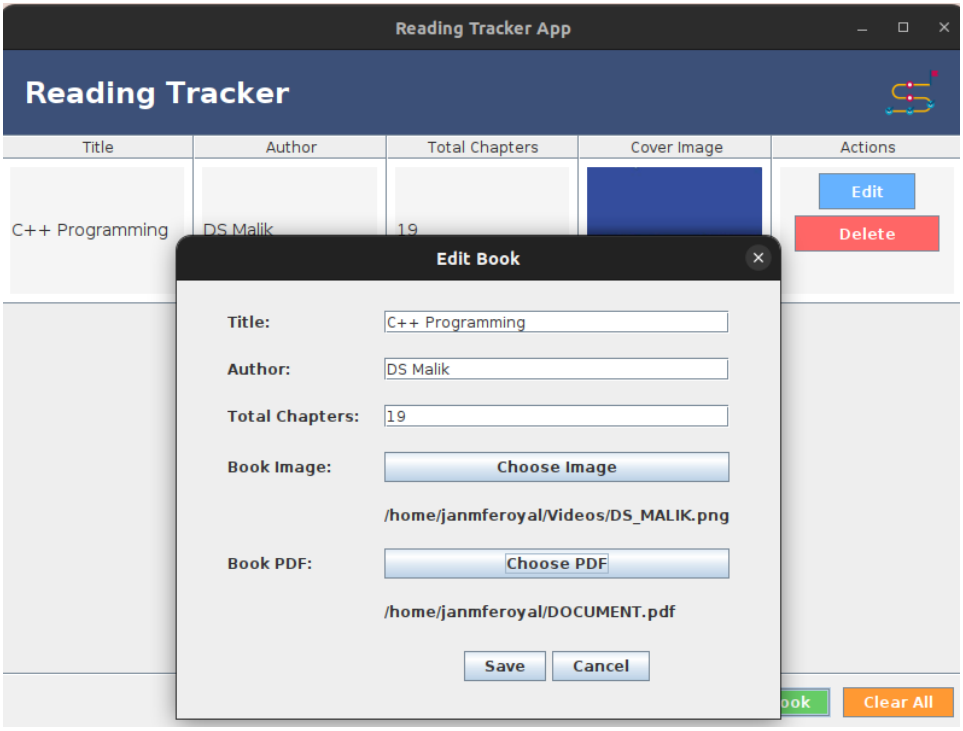

Figure 5: Edit Book Screen

- **Delete Book Functionality**

Users may want to remove a book from their reading list, either because they've finished reading it or no longer want it tracked. This feature will allow users to delete individual books.

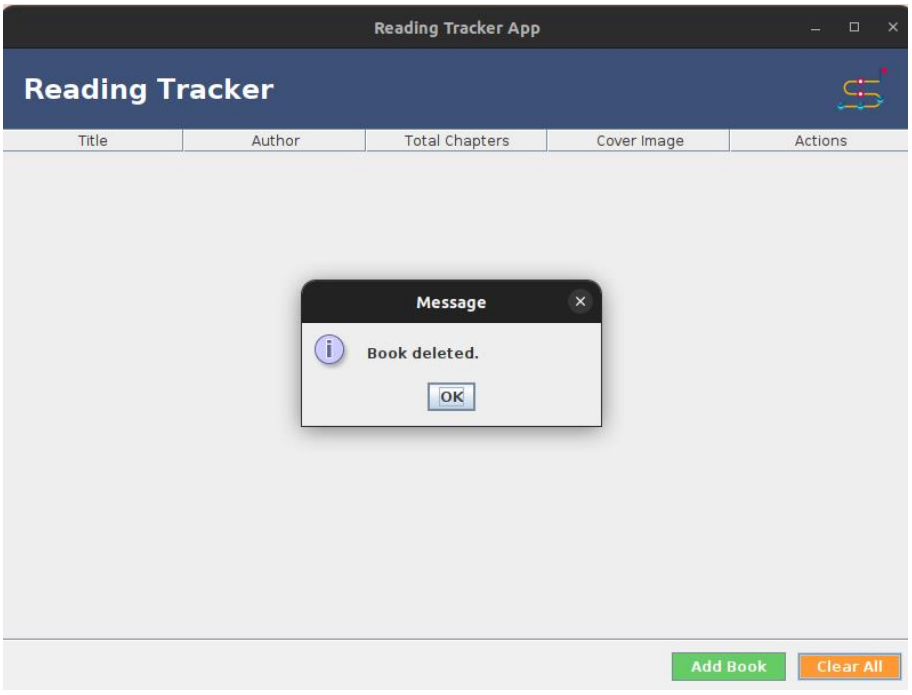

Figure 6: Delete Book Functionality

- **Clear All Books Functionality**

Sometimes, users may want to clear all books from their reading list. This functionality will allow users to delete all books at once, typically with a warning to confirm the action.

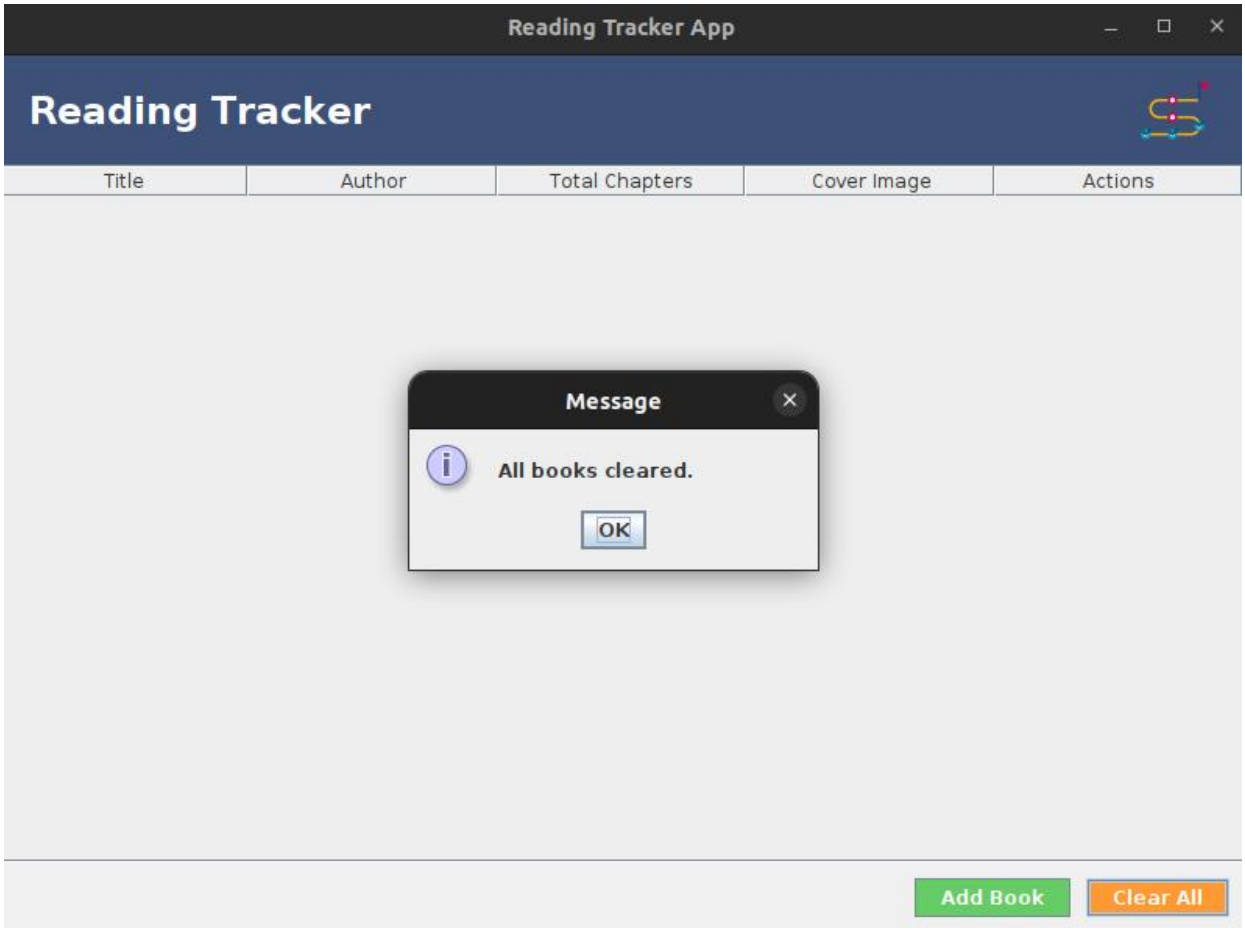

Figure 7: Clear Books

2.2 CONCLUSION

In conclusion, the Reading Tracker Application has been designed with a user-centric approach, focusing on providing a seamless, intuitive, and efficient way for users to track their reading habits. The user interface (UI) is clean and simple, ensuring ease of navigation and accessibility for a wide range of users. Key features, including the ability to add, edit, delete, and manage books, alongside progress tracking and goal setting, offer a comprehensive solution for readers of all kinds.

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