

# How to Use the Program

## 1. Add a Book

- **Select option 1** from the main menu.
- Enter the following details:
  - **Book Name:** The title of the book.
  - **Quantity:** The number of available copies.
  - **Pages:** The total number of pages in the book.
  - **Price:** The price of a single copy.
- Once entered, the new book will be added to the store's inventory, and its details will be displayed on the console.

## 2. Purchase a Book

- **Select option 2** from the main menu.
- Enter the following information:
  - **Book Name:** The exact title of the book you wish to purchase.
  - **Quantity:** The number of copies you want to buy.
  - **Amount:** The total amount of money you are spending.
- The program will validate the purchase by checking:
  - **Stock Availability:** Confirms that there are enough copies in stock.
  - **Sufficient Funds:** Ensures that you have enough money to complete the transaction.
- If the purchase is successful:
  - The quantity of the selected book is reduced by the number of copies bought.
  - The store's total income is updated.
  - A confirmation message is shown, including the total cost and any change due.
- If the purchase fails due to insufficient stock or funds, an appropriate error message will be displayed.

## 3. Display Books

- **Select option 3** from the main menu.
- The program will list all available books in the store, showcasing their details such as ID, name, quantity, number of pages, and price.

## 4. Show Transaction History

- **Select option 4** from the main menu.
- The program will display a comprehensive history of all transactions, including successful purchases and any failed attempts due to insufficient stock or funds.

## 5. Show Total Income

- **Select option 5** from the main menu.
- The program will display the total income generated by the store up to that point.

## 6. Exit

- **Select option 6** from the main menu to exit the program.
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# Feature List and Functionality

## Book Management

- **Add Books:** Users can add new books to the store's inventory, specifying essential details such as the name, quantity, pages, and price.
- **Track Book Details:** Each book's information is stored, including a unique ID, name, quantity, number of pages, and price.

## Purchase Functionality

- **Case-Insensitive Search:** The program allows users to search for books without worrying about capitalization, making it easier to locate books based on input.
- **Quantity and Fund Checks:** Verifies that the requested quantity is available in stock and that the user has enough funds to make the purchase.
- **Price Calculation:** Calculates the total price based on the quantity of books and the unit price.
- **Inventory Update:** Automatically updates the quantity of books after a successful purchase.
- **Income Tracking:** Maintains and updates the total income generated from all purchases.
- **Transaction History:** Records both successful and unsuccessful purchase attempts, allowing users to review past transactions.

## User Interface

- **Menu-Driven Interface:** Provides an intuitive and user-friendly menu for navigating through the program.
- **Clear Prompts and Messages:** Gives users clear and concise instructions, guiding them through each step of the process.
- **Error Handling:** Gracefully manages invalid inputs and error conditions to prevent crashes and improve user experience.

## Additional Features

- **Formatted Output:** Displays monetary values with appropriate formatting (e.g., "123.45 Tk") for better readability.
- **Case-Insensitive Search:** Facilitates book searches by eliminating case sensitivity, simplifying the process of locating books for purchase.