Project Descriptions

1. Library Management System

- Develop a library management system to handle book records. The system must:

  - Allow adding, updating, and deleting book records.

  - Keep track of issued and returned books with due dates.

  - Calculate and apply late return fees automatically.

  - Include a search feature by book title, author, or genre.

  - Provide a monthly report of most borrowed books.

2. Banking System

- Develop a banking management system using C++ to manage customer accounts. The system must:

  - Allow creating, updating, and deleting accounts.

  - Support deposit and withdrawal functionalities.

  - Generate account statements.

  - Provide options for setting spending limits.

  - Ensure secure handling of user data.

  - Provide a functionality to transfer amount to other accounts

3. Stock Management System

- Create a stock management system that:

  - Tracks inventory levels for various products.

  - Includes Search functionality for products based on category and subcategory.

  - Supports adding, updating, and deleting stock records.

  - Generates alerts for low-stock items.

  - Includes a dashboard for stock trends and analysis.

Project Descriptions

4. Student Database Management System

- Develop a student database management system using C++ to handle information about students, such as names, IDs, grades, attendance records, etc. Your system must:
  - Allow adding, updating, and deleting student records.
  - Implement searching and sorting functionality for efficient access.
  - Ensure data validation and error handling.
  - Generate detailed student performance reports.
  - This system allows assigning a specific mark (Blue, Red, or Black) to a student based on their behavior or performance. Each mark deducts points from the student's total score as follows:
    - Blue Mark: Deducts 5 points from the student's score. For minor infractions or areas needing slight improvement.
    - Red Mark: Deducts 10 points from the student's score. For moderate infractions or significant shortcomings.
    - Black Mark: Deducts 15 points from the student's score. For severe infractions or critical issues. Three Black Mark in the total university life marks the student as Bad Student

5. Online Shopping System

- Create an online shopping platform using C++. The system must:
  - Allow users to browse and search for products.
  - Manage a shopping cart for adding or removing items.
  - Process payment with simulated payment gateway integration.
  - Provide order tracking and delivery updates.
  - Generate personalized product recommendations.

6. Login and Registration System

- Develop a login and registration system using C++. The system must:
  - Allow new users to register with unique credentials.
  - Validate user credentials during login.
  - Store user data securely using file handling.
  - Implement password recovery features.
  - Track and log unsuccessful login attempts for security.