VerveBridge

Crafting Careers, Empowering Tomorrow

Library Management System (C++ Programming)

- **Objective:**

The goal is to develop a Library Management System using C++ that can handle basic library operations such as adding books, issuing books, returning books, and searching for books.

What You Need to Do:

- **Research:**

Explore the basic functionalities of a library management system.
Review relevant data structures and file handling techniques in C++.

Design:

- **Plan the Features:**

Add new books to the library.
Issue books to users.
Return books to the library.
Search for books by title, author, or ISBN.
Display available books.

- **Create Flowcharts:**

Design the workflow for each feature, including adding, issuing, returning, and searching for books.

Develop:

- **Setup:**

Set up the development environment and version control system.

- **Core Features:**

Implement the functionality to add new books.
Develop the process to issue and return books.
Implement search functionality based on various criteria.
Display a list of available books in the library.

- **Data Management:**

Use appropriate data structures to store book details and user information.
Implement file handling for persistent storage of data.

- **Error Handling:**

Implement validation for user inputs and handle potential errors gracefully.

Test:

- **Functionality Testing:**

Verify all features work as intended.
Test with different scenarios and edge cases

- **Usability Testing:**

Get feedback from users to improve the interface and user experience.

Deliverables:

- **Research Summary:**

Summarize your findings on library management systems and relevant C++ programming techniques.

- **Design Documents:**

Include your flowcharts, feature list, and any relevant design decisions.

- **Code:**

The complete code for the Library Management System.

- **Documentation:**

Detailed documentation on how to use the system and its features.

- **Demo/Presentation:**

Showcase your project, explain the workflow, and demonstrate the system's capabilities.

Submission requirements:

1. Offer Letter:

After the introduction session, you have to upload the offer letter on LinkedIn between 10 am and 2 pm and also tag Vervebridge.

2. Task repo and video :

All the repos you create to upload the code on GitHub should be in the name of Vervebridge and all the videos you upload on LinkedIn should have the Vervebridge logo.

3. Architecture:

Whatever code you write, its details should be given in the comment above the code as to why that code is written.

4. Project demo video:

The project demo video should not be more than 2 minutes long and the Vervebridge logo should be mentioned in the video.

5. The project LinkedIn a post:

Whatever projects you get, you have to keep doing them on LinkedIn as they get completed and when all the projects are completed, you will get a certificate.

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