

Project2: Library Management System

Question:

Write a comprehensive Python program that manages a library system. The program should include functions to add books, register members, borrow books, return books, and generate reports. Use for loops, while loops, and if statements extensively within the functions to handle various operations and checks.

Requirements:

1. Function to Add Books:

- Add a new book to the library.

2. Function to Register Members:

- Register a new member to the library.

3. Function to Borrow Books:

- Record when a member borrows a book.

4. Function to Return Books:

- Record when a member returns a book.

5. Function to Generate Reports:

- Generate detailed reports showing borrowed books, available books, and member details.

6. Validation and Error Handling:

- Ensure valid inputs and handle errors gracefully.

7. Book Availability Check:

- Ensure that a book is available before allowing it to be borrowed.

8. User Interface:

- Develop a command-line interface for user interaction.