

PYTHON

Assignment

Library Management System

Description: Develop a Library Management System using Python modules and packages. The system should allow users to manage books, members, and borrowing records.

Features:

1. **Books Module:**
 - Functions to add, update, delete, and search for books.
 - Track the availability of books.
2. **Members Module:**
 - Functions to add, update, delete, and search for members.
 - Track member borrowing history.
3. **Borrowing Module:**
 - Record when a book is borrowed or returned.
 - Implement a due date system and calculate fines for late returns.
4. **Package Structure:**
 - Create a package called `library_management` containing sub-packages or modules for books, members, and borrowing.
 - Use an `__init__.py` file to initialize the package.
5. **User Interface:**
 - Implement a simple command-line interface for users to interact with the system.

Package and Module Structure:

```
library_management/  
|  
├── books/  
|   ├── __init__.py  
|   └── book_management.py  
|  
├── members/  
|   ├── __init__.py  
|   └── member_management.py  
|  
├── borrowing/  
|   ├── __init__.py  
|   └── borrowing_management.py  
|  
└── __init__.py  
    └── main.py
```