Library Management System

This is a simple command-line **Library Management System** that allows users to manage a collection of books. The application performs basic tasks like adding, deleting, searching, displaying, and updating the status of books in the library.

Features:

1. **Add a Book**:
    - Users can add books by providing the book's title, author, and year of publication.
    - Each book will be assigned a unique ID automatically, and its status will be set as "available."
2. **Delete a Book**:
    - Users can delete a book by providing its ID.
    - If a book with the given ID doesn’t exist, the system will display an error.
3. **Search for Books**:
    - Users can search for books by:
        - **Title**: Search books by their title.
        - **Author**: Search books by the author’s name.
        - **Year**: Search books by the year of publication.
    - The system will display all books that match the search criteria.
4. **Display All Books**:
    - Users can view a list of all the books in the library, showing their ID, title, author, year of publication, and current status.
5. **Change Book Status**:
    - Users can change a book’s status between:
        - **Available**: The book is available in the library.
        - **Issued**: The book has been checked out by a user.
    - Users need to enter the book ID and select the new status for the book.

Data Storage:

- The system saves the library data in a **JSON file**, which is used to store and retrieve book details.
- The book data includes ID, title, author, year, and status.

Error Handling:

- The system checks for invalid inputs and handles them appropriately:
    - If an invalid ID is entered for deletion or status change, an error message is displayed.
    - If a non-existent book ID is entered for deletion, the system will notify the user.
    - If a search query is entered incorrectly, the system will ask for a valid search criterion.

Requirements:

- Python 3.x
- No external libraries are required.

Using the Application:

1. Simply **run the program** in any code editor (like VS Code, PyCharm, etc.)
2. Once the program is running, you'll see a simple menu with options:
    - **1**: Add a Book
    - **2**: Delete a Book
    - **3**: Search for a Book
    - **4**: Display All Books
    - **5**: Change Book Status
    - **6**: Exit the System
3. Just **follow the on-screen prompts** to interact with the system and perform the tasks!

How to Test:

- The application includes tests to ensure everything is working correctly.
- If you're using an editor like **VS Code**, **PyCharm**, or similar, you can also run the tests directly from the editor by using the built-in test runner (just look for the option to "Run Tests" in your editor).