📝 Assignment: Build a Mini Library Management System

We are going to build a **Library Management System** that lets users add books, view them, borrow them, and return. This will bring together **variables, strings, loops, conditionals, functions, and OOP** into one real-life project.

✅ Instructions

Step 1: Book Class

1. Create a `Book` class with attributes:
    - `title`
    - `author`
    - `year`
    - `is_borrowed` (default = `False`)

2. Add methods:
    - `borrow()` → sets `is_borrowed = True` if available, otherwise do nothing.
    - `return_book()` → sets `is_borrowed = False` if borrowed.

3. Test by creating a book and borrowing/returning it.

Step 2: Library Class

1. Create a `Library` class with:
    - A list `books` to store all books.

2. Add methods:
    - `add_book(title, author, year)` → creates a `Book` and stores it in the list.
    - `list_books()` → loops through all books and prints details with availability.
    - `borrow_book(index)` → borrows a book at a given position in the list.
    - `return_book(index)` → returns a book at a given position.
3. Test by adding multiple books and printing them.

Step 3: Menu System

1. Create a loop (`while True`) that shows a menu:
    1. *Add book*
    2. *View all books*
    3. *Borrow a book*
    4. *Return a book*
    5. *Exit*
2. Take user input for each choice.
3. Use conditionals (`if`, `elif`) to call the right method from the library.
4. Allow borrowing/returning by book number (e.g., "Enter book number to borrow: ")

Step 4: Testing

1. Add at least **5 books** (e.g., Qur'an Tafsir, Hadith Collection, Islamic History, etc.).
2. Borrow some books and confirm status changes from "Available ✅" to "Borrowed ❌".
3. Return a borrowed book and confirm it changes back.

🧪 Expected Example

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📚 Library Menu:
1. Add book
2. View all books
3. Borrow a book
4. Return a book
5. Exit

Enter choice: 1
Enter book title: Qur'an Tafsir
Enter author: Ibn Kathir
Enter year: 1995
✅ Book added successfully!

Enter choice: 2
1. Qur'An Tafsir by Ibn Kathir (1995) - Available ✅
```

👉 Deliverables:

- A single Python file named `library_system.py`.
- Should run from terminal and allow interactive usage.