

## Assignment Statement:

### Library Book Tracker with Sorting

You are tasked with designing a program to manage a library's book inventory. The program should allow the library to add books dynamically, track their details (title, author, year of publication), and display all stored books sorted by the year of publication in ascending order.

## Requirements

1. Input:
  - The program first asks for the number of books the user wants to add.
  - For each book, the user enters:
    - The book's title (string).
    - The author's name (string).
    - The year of publication (integer).
2. Output:
  - After all books are entered, the program displays the list of all books with their details sorted in ascending order by the year of publication.
3. Constraints:
  - Each string (title and author) can have up to 100 characters.
  - The year of publication is a positive integer.

## Special Notes:

- The program must handle cases where the user provides missing or incomplete input (e.g., leaving the title or author blank). In such cases, the program should store empty values for the missing fields and continue functioning correctly.
- Ensure that your input and output formats strictly follow the sample input/output provided below.
- Please follow the style guide submitted with this assignment to receive full credit
- **IMPORTANT:** Test your program thoroughly on **Eustis** before submission. Programs that do not compile or execute correctly on Eustis will not be eligible for credit.

## What to submit:

1. Your **library.c** file that contains your code

## Example Input and Output

### Input:

```
Enter the number of books: 3
Enter details for book 1:
Title: The Great Gatsby
Author: F. Scott Fitzgerald
Year: 1925
Enter details for book 2:
Title: 1984
Author: George Orwell
Year: 1949
Enter details for book 3:
Title: To Kill a Mockingbird
Author: Harper Lee
Year: 1960
```

### Output:

```
Library Inventory (Sorted by Year of Publication):
1. Title: The Great Gatsby
   Author: F. Scott Fitzgerald
   Year: 1925

2. Title: 1984
   Author: George Orwell
   Year: 1949

3. Title: To Kill a Mockingbird
   Author: Harper Lee
   Year: 1960
```