

You are tasked with designing a **Digital Library Management System** that maintains book records using a **linked list** and an **array**.

System Requirements:

- Each book in the library will be represented as a **node** in a linked list. Each node contains:
 - **Book ID (unique)**
 - **Title**
 - **Author**
 - **Year of Publication**
 - **Number of Pages**
- An **array** will be used to store the **Book IDs** separately, allowing search (use binary search) for duplicate entries.

Functionalities to Implement:

1. Add Book:

- Prompt the user for a Book ID.
- Search the array to check if the ID already exists.
 - If the Book ID exists, display:
"Book ID already exists! Cannot insert duplicate."
 - If the Book ID does not exist, take inputs from the user about book information (Title, author, Year of Publication, Pages) and insert the new book into the linked list in **ascending order of page number**. Also insert the new Book ID into the array.

2. Search Book:

- Prompt the user for a Book ID.
- First check if the Book ID is in the array.
- If found, traverse the linked list to retrieve and display the complete details of the book.
- If not found, display:
"Book not found in the library."

3. Books published after certain year

- Take year input from users.
- Traverse the linked list and display all the book records those were published after that year.

Sample Input/Output Behavior:

1. Add Book
2. Search Book
3. Books published after certain year
4. Exit

Enter choice: 1

Enter Book ID: 102

Book not found in array. Adding new record...

Enter Title: Data Structures

Enter Author: Mark Allen

Enter Year: 2019

Enter Pages: 520

Record inserted successfully!

Enter choice: 1

Enter Book ID: 102

Book ID already exists! Cannot insert duplicate.

Enter choice: 2

Enter Book ID: 102

Book Found:

Title: Data Structures

Author: Mark Allen

Year: 2019

Pages: 520

Enter choice: 2

Enter Book ID: 205

Book not found in the library.

Lastly you have to check your system using a book ID that should be the number of characters in your name.