**Exercise 6: Library Management System**

**Understand Search Algorithms:**

**Linear Search (unsorted data)**

* Checks each element sequentially.
* **Time Complexity**: O(n)
* **Use when**: Data is unsorted or list is small.

**Binary Search (sorted data)**

* Works on **sorted arrays/lists**.
* Divides search space in half each step.
* **Time Complexity**: O(log n)
* **Use when**: Data is **sorted** and large.

**Output:**

