

**Course: Data Structures Lab**

**Date: 30-7-2023**

**Topic: Array**

1. You are searching for a book in the library. Here our sorted list is the well-arranged n number of books according to unique numbers in ascending order in a shelf. Our target element is the book we prefer to read (Find the index of our desired book id assuming the 1st book is in 1 index)

**Sample Input:**

No. of book ids: **5**

Book IDs: 101, 102, 307, 401, 405

Find the index of Book id: **102**

**Output:**

The 102 book is in **2 index**.

2. Apply binary search on any type of unsorted 1D array.

Sample Input: number of elements 5

3 4 5 2 11

Find: 5

Output: 2 3 4 5 11

Location: 4

3. Find out the index of the 3rd largest value in an array and insert a value in that index.

Sample Input: number of elements 5

3 4 5 2 11

Insert: 8

Output: 3 4 8 5 2 11