

Assignment: 3

ENSF: 594

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Q1) Binary Search:

```
Enter size of the sorted list
5
Enter element 1 of this sorted list
1
Enter element 2 of this sorted list
5
Enter element 3 of this sorted list
8
Enter element 4 of this sorted list
12
Enter element 5 of this sorted list
13
How many numbers you are searching for ?
5
Enter a number to search in the sorted list
8
Enter a number to search in the sorted list
1
Enter a number to search in the sorted list
23
Enter a number to search in the sorted list
1
Enter a number to search in the sorted list
11
The index of 8 is 2
The index of 1 is 0
The index of 23 is -1
The index of 1 is 0
The index of 11 is -1
```

Q2) Majority Element:

```
Enter size of the list
5
Enter element 1 of this list
2
Enter element 2 of this list
3
Enter element 3 of this list
9
Enter element 4 of this list
2
Enter element 5 of this list
2
-----
Majority using Divide and Conquer 1
Majority element check using HashMap 1
|
```

```
Enter size of the list
4
Enter element 1 of this list
1
Enter element 2 of this list
2
Enter element 3 of this list
3
Enter element 4 of this list
4
-----
Majority using Divide and Conquer 0
Majority element check using HashMap 0
```