Data Structures and Algorithms

CSE2001

Lab - 5 - Assignment - 2

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Problem : Linear Search

```
import java.util.*;
class LinearSearch {
   static int search(int arr[], int n, int x)
   {
      for (int i = 0; i < n; i++) {

         if (arr[i] == x)
            return i;
      }
      return -1;
   }

   public static void main(String[] args)
   {
      Scanner sc = new Scanner(System.in);
      System.out.println("Enter the Length of Array");
      int l = sc.nextInt();
      int[] arr = new int[l];
```

```
        System.out.println("Enter the Numbers in Array");
        for(int i = 0; i<l;i++){
            arr[i] = sc.nextInt();

        }
        int n = arr.length;
        System.out.println("Enter the Number to Search");
        int x = sc.nextInt();

        int index = search(arr, n, x);
        if (index == -1)
            System.out.println("Element is not present in the array");
        else
            System.out.println("Element found at position " + index);
    }
}
```

Output

```
C:\Users\yashw\Desktop\Summer\Labs>javac LinearSearch.java --release 8

C:\Users\yashw\Desktop\Summer\Labs>java LinearSearch
Enter the Length of Array
8
Enter the Numbers in Array
2 3 4 6 9 8 7 2
Enter the Number to Search
6
Element found at position 3
```