

## CL1002 – Programming Fundamentals Lab

### Practice Problems

#### Problem: 1

Write a program to declare an array of size 10 and initialize the array with the user provided values.

Create function for each task and answer the following:

1. Find the minimum value in the array.
2. Find the maximum value in the array.
3. Find the average/mean value of the array.
4. Display the last element of array.
5. Display the value at index 2.
6. Count Even and Odd Elements in array.
7. Print numbers in reverse order.

#### Sample Output:

```
Enter 10 elements in array
2 4 6 8 1 3 5 7 10 16
Minimum value in array is 1
Maximum value in array is 16
Average of array is 6.200000
Value at index 2 is 6
Last Element of array is 16
Odd Element Count 4
Even Element Count 6
Array in reverse Order
16 10 7 5 3 1 8 6 4 2
```

#### Problem: 2

Write a C program to find an element from an array. Each element will be checked. If searched element exists multiple time, then its count will also be shown.

```
Enter element to search in array
[1 2 3 4 4 5 6 7 8 4]:9
Element Not Found
```

```
Enter element to search in array
[1 2 3 4 4 5 6 7 8 4]:4
Element 4 found 3 times
```

### Problem: 3

Use a one-dimensional array to solve the following problem. Read in 25 numbers, each of which is between 10 and 100, inclusive. As each number is read, validate it and store it in the array only if it isn't a duplicate of a number already read. After reading all the values, display only the unique values that the user entered.

