

# Lab 4 - Arrays

1. Write a C program to calculate the average of user integer inputs sample output:

```
Enter number of elements: 5
Enter number1: 45
Enter number2: 35
Enter number3: 38
Enter number4: 31
Enter number5: 49
Average = 39.60
```

2. Write a C program to calculate the sum of 2 matrix twos

**Elements of a Matrix3:**

a11	a12	a13
a21	a22	a23
a31	a32	a33

**Array layout of a Matrix3 (x):**

	Column 1	Column 2	Column 3
Row 1	x[0][0]	x[0][1]	x[0][2]
Row 2	x[1][0]	x[1][1]	x[1][2]
Row 3	x[2][0]	x[2][1]	x[2][2]

sample output:

```
Enter elements of 1st matrix
a11: 2;
a12: 0.5;
a13: 1;
a21: -1.1;
a22: 2;
a23: 4;
a31: 0.2;
a32: 1;
a33: 1;

Enter elements of 2nd matrix
a11: 1;
a12: 0;
a13: 2;
```

```
a21: -3.4;  
a22: 7;  
a23: 5;  
a31: -4.1;  
a32: 0;  
a33: 1;
```

Sum Of Matrix:

```
3      0.5    3  
-4.5   9      9  
-3.9   1      2
```

### 3. Write a C program to pass an array to a function

- Create a function called `PrintArray` that takes an array as a parameter and an int for its length and prints the elements of the array to the console
- Define a pre-processor macro for the array length

sample output:

```
Array: [1,2,4,8,1,23,421,55,67,78,99,0,3]
```