CL1002 – Programming Fundamentals Lab

Exercise # 08

Note:

- Submit a pdf file containing all of your C code with all possible screenshots of every task outputs on Google Classroom.
- Copied task will be awarded **zero** marks.
- Note that these lab task marks could be graded through a viva in lab.
- Please submit your file with this naming convention (roll-no-name) i.e (22P-8743-Zain.pdf).

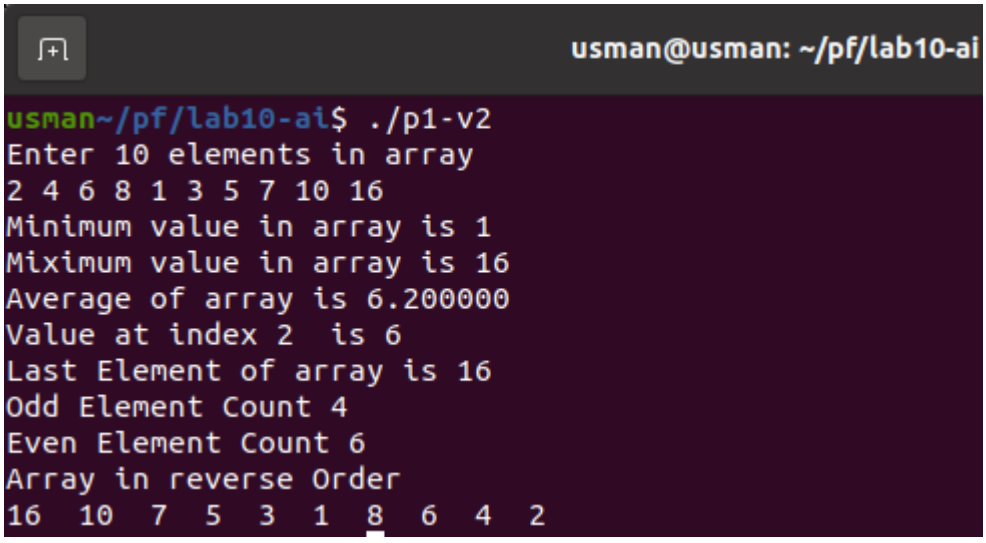
Problem: 1 | Array 1 Dimensional

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

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:



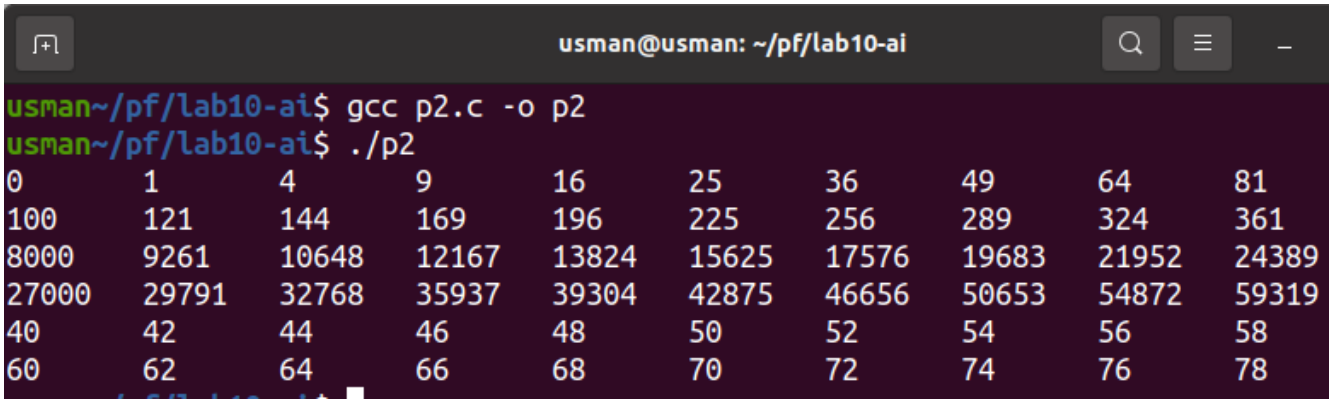
Problem: 2 | Array 1 Dimensional

Write a C program that declares an array alpha of 60 components of type int. Initialize the array so that the first 20 components are equal to the square of the index variable, and the next 20 components are equal to three times the index variable. Last 20 elements are the sum of first 20 and last 20 indices variables.

Note:

Output the array so that 10 elements per line are printed.

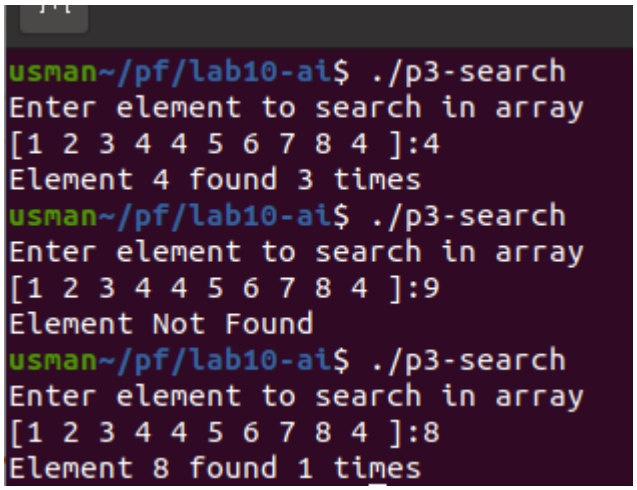
Sample Output:



Problem: 3 | Array 1 Dimensional, Searching

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.

Sample Output



Additional Task

Problem: 4 | Array 1 Dimensional, Duplicate Elimination

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.