

## **Lab 5 (Array)**

### **-----1D array -----**

1. Write a program that takes a 1D array from the user with 5 elements and prints its elements in reverse order.
2. Write a program to count and display the number of even and odd numbers in a 1D array with 10 numbers received from the user.
3. Create a program that receive 10 numbers from user and finds and displays the max, min, sum, average values.
4. Write a program to receive 12 values from user and search key value, then search for this key value inside the previous 12 values and display its index if found, or print "Not Found" otherwise.
5. Write a program to receive 5 values from user and check there is duplication or not, if there is duplication, print index and value of them.

### **-----2D array -----**

6. Write a C++ program to receive degrees of 4 students, each have 5 subjects, the fmax degree of the subject is 100, then:
  - a. print sum, average of the subjects for each student,
  - b. print sum, average of each subject against all students
  - c. based on student full degree, print passed or failed. Passed must have 70% or above.
7. Improve the previous program and define 1D array for students' names and another one for subjects' names, then receive these names from user before receiving the degrees. After that, enhance the output of (a,b,c) to include student name or subject name in the required place.