LAB V
ARRAYS

1. Initialize two integer arrays, a[6] and b[6]. First print their elements in two rows, and then print them out in two columns.

2. Write a program that displays the inputs given to an array in the reverse order. Input the array size.

3. Scan floating point numbers into an array until the sum of those numbers exceed 100. At the index where the sum becomes greater than 100, store a -1.0 to denote the end of the array. Now print the number of elements in the array, not including the -1.0.

4. Initialize an array with 6 integers. Read another integer and add that number to each element in the array. Then print the array.

5. Write a program to find the average of numbers stored in an array. Input the array size.

6. Write a program to search for a given number in an array. Also display the array index of the number.

7. Write a program to find the smallest number in an array.

8. Initialize an integer array with 6 elements. Find the lowest element and swap it with the number in the first index. For example, if the array is 40, 80, 20, 50, 90, 30 then after the swap the array should become 20, 80, 40, 50, 90, 30.

9. Write a program to interchange the largest and smallest numbers in the array.

10. Write a program to add two 1D arrays.

11. Write a program to find the sum of squares of the elements at odd numbered positions & sum of cubes of the elements at even numbered positions in an array.

12. Write a program to check whether the array contains a duplicate number.

13. Write a menu-driven program to accept an array from the user & perform the following:
    a. Insert an element at a specified index
    b. Delete an element at a specified index

14. Write a program to sort the elements in an array in ascending order. If the user wishes to insert an element, insert it at the correct location so that the resultant array retains the ascending order.

15. Write a program to delete an element from an array that is already sorted in ascending order.

16. Write a program to merge two arrays into a third array.

17. Write a program to merge two arrays which are sorted in ascending order. The merged array should also be in ascending order.