Assignment-2
(Pointer & Array)

1. Write a function to search an element in an arraylist and delete that element in that arraylist (You need to create the arraylist inside the structure) .
2. Write a program to reverse the even index position and odd index position for even element array and odd element array.
3. In a one dimensional array insert one or more element at a particular position of an array.

   Ex: Given array: 1,2,3,4,5,6,7,8,9

   insert 15,17,19 at the 5^{th} position of the given array.

   Output: 1,2,3,4,15,17,18,5,6,7,8,9

You can apply the realloc to increase the size of the array if necessary.

4. In a one dimensional array delete all even numbers present in the array.
5. In a one dimensional array find out all the elements and their position, which is the summation of its immediate previous contiguous elements.

   Ex: Given array: 2,9,6,3,9,8,17,3,6,4,13,5

   Output: output is 9, which is a summation of it's previous elements 3 and 6

   output is 13, which is a summation of it's previous elements 4,6 and 3

6. Write a program to remove repeated elements in a given array.
7. In a one dimensional array, user gives a certain range of index with shifting value. You need to right shift and rotate those range of values based on the given shifting value. Do the same for left shift.

   Given array: 2,9,6,3,**5,8,11,3,6,7**,13,5

   Given range: 4^{th} index to 9^{th} index(consider the starting index is 0) and shifting value is 2

   Output: 2,9,6,3,6,7,5,8,11,3,13,5

Given array: 2,9,**6,3,5,8,11,3,6**,7,13,5

Given range: 2nd index to 8th index(consider the starting index is 0) and shifting value is 4

Output: 2,9,8,11,3,6,6,3,5,7,13,5

8. Write a program to rotate the circular elements based on the number of shifts. If it is two shift then all the elements in the circle will be shifted two step forward. Write the program without taking any extra array.

1-shift 2-shift

9. Write a program to find the square matrix subset of an original two dimensional matrix whose summation, i.e. the summation of all the elements of square matrix subset, is equal to the required number.
10. Write a program to find whether an array is subset of another array.
11. Write a program to find the intersection of two sets(consider each set is an array).
12. Write a program that will create an ascending element array from the given unsorted array by fulfilling the following criteria.

    The values present in the resultant array may be different from the original array but the digits present in the each element of the original array must be present in the same position of the resultant array.

    Your target should be to minimize the maximum value present in the resultant array.

    Ex: Original array: 2,9,6,3,9,8,17,3,4,6,13,5

    Resultant array: 2, 9, 16, 23, 29, 38, 71, 73, 74, 76, 103, 105