Foundations & Data Structures With C++

Assignment 5 – Arrays 2

1. Implement following -
    a. Binary Search
    b. Selection Sort
    c. Bubble Sort
    d. Insertion Sort.
2. Given an array of positive and negative numbers, find if there is a subarray (consecutive elements) with 0 sum.
3. Given an array of random numbers, push all the zeros of a given array to the end of the array. For example,

    Input : {1, 9, 8, 4, 0, 0, 2, 7, 0, 6, 0}
    Output : {1, 9, 8, 4, 2, 7, 6, 0, 0, 0, 0}.

    The order of all other elements should be same.
4. Write a function rotate(ar[], d, n) that rotates arr[] of size n by d elements (towards right).

    Eg. Input : {1, 2, 3, 4, 5, 6, 7} n = 7 and d = 2
    Output : {3, 4, 5, 6, 7, 1, 2}
5. Find second largest element in an array.
6. A sorted array has been rotated by some number k in clockwise direction. Find k. E.g. Input: 5,6,1,2,3,4 Output: 2
7. Given an array of integers, sort the array into a wave like array and print it. In other words, arrange the elements into a sequence such that a1 >= a2 <= a3 >= a4 <= a5 >= a6....