PMCA501P - LAB-DIGITAL ASSESSMENT-II

Write a C code for the following

1. To perform polynomial subtraction using singly linked list.

2. To implement operations of doubly circular linked list.

3. Take a list of elements that contains both characters and numbers. Using any sorting algorithm, sort the list such that the characters are in alphabetical order and the numbers are in descending order. However, retain the position of numbers and characters. For example: Input: b,2,1,c,3,a. Output: a,3,2,b,1,c.

4. You are an IT company's manager. Based on the performance over the last N working days, you must rate your employee. You are given an array of N integers called workload, where workload[i] represents the number of hours an employee worked on an i^{th} day. The employee must be evaluated using the following criteria:

- Rating = the maximum number of consecutive working days when the employee has worked more than 6 hours.

You are given an integer *N* where *N* represents the number of working days. You are given an integer array *workload* where *workload[i]* represents the number of hours an employee worked on an i^{th} day. Determine the employee rating.

Example 1 :

- *N* = 12
- *workload* = [2, 3, 7, 8, 7, 6, 3, 8, 12, 11, 12, 10]

Approach

Workload with consecutive hours > 6 = [2, 3, **7, 8, 7**, 6, 3, **8, 12, 11, 12, 10**]
=> Longest Interval = [8,12,11,12,10]

Therefore return *5*.

Example 2 :
7
3 7 8 12 4 9 8
Sample Output
3
Explanation
Workload with consecutive hours > 6 = [**7 8 12** 4 **9 8**]

=> Longest Interval = [7 8 12].

Therefore, return *3*.