https://www.youtube.com/watch?v=kPRA0W1kECg&t=25s

Opener) **maximum contiguous subsequence sum problem**

Given (possibly negative) integers $A1$, $A2$, ..., AN , find (and identify the sequence corresponding to) the maximum value of $\sum j\ Ak$. The maximum contiguous sub- sequence sum is zero if all the integers are negative.

Sorting

1) Write pseudocode for insertion sort that puts items in descending instead of ascending order.

Recursion

Ackerman's function is defined as follows.

$$A(m, n) = \begin{cases} n+1 & \text{if } m = 0 \\ A(m-1, 1) & \text{if } m > 0 \text{ and } n = 0 \\ A(m-1, A(m, n-1)) & \text{if } m > 0 \text{ and } n > 0 \end{cases}$$

Implement Ackerman's function.

Topics For midterm:

Big Oh - Specifically his question
Linked Lists ,stacks, queues
Abstract classes and interfaces