HackerRank For Work

Spring_2018_INFO6205_Se... 30 minutes

Question - 1

SCORE: **30 points**

Dijkstra Two-Stack algorithm

Your task is to implement the push, pop and peek methods for a stack to be used to solve the Dijkstra Two-Stack algorithm. A general grow method is available to you. This grows the stack when the stack is full. You will also have certain helper methods to check whether the stack is full or empty and a method which returns the size of the array.

You are **NOT** allowed to change anything else. Just complete the TODOs and implement the Push,Pop and Peek method.
Remember, if you have any questions or doubts, ask us.

Question - 2

SCORE: **10 points**

Question 2

Evaluate the following reverse polish notation: 1 2 3 + 4 5 * * + 2 10 15 + * + 1 17 2 5 4 + * + + -

Question - 3

SCORE: **5 points**

Time Complexity

Given the following observations, what is the correct expression for time as a function of N?

N	Time (seconds)
4	8
9	27
16	64
64	512
81	729
256	4096

Question - 4

SCORE: **5 points**

Question 4

You are given pointers to first and last nodes of a singly linked list, which of the following operations are dependent on the length of the linked list?

- ○ Insert a new element as a first element
- ◉ Delete the last element of the list
- ○ Add a new element at the end of the list

- Delete the first element