Paxton Proctor

CMPS 4143-101 Cont: Java Python

Prof Das

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Program Assignment #3

Problem #1

* Make a stack using a implemented linkedlist data structure

1. Output:

Successfully pushed: 12

Successfully pushed: 13

Successfully pushed: 18

Successfully pushed: 23

Successfully pushed: 43

Successfully pushed: 34

34 -> 43 -> 23 -> 18 -> 13 -> 12 ->

Top of Stack is: 34

popping element successful: 34

popping element successful: 43

popping element successful: 23

here is the minimum after push: 12

Top of Stack is: 18

Successfully pushed: 3

3 -> 18 -> 13 -> 12 ->

here is the new minimum after push: 3

1. Input:

* nothing

1. Algorithm:

* Nothing, just making a stack

1. Steps:

* Make two classes one a node and the other a stack
* Get a push def that will call the minimum def to keep track of min val
* Get top function and pop then call the functions and print

Problem #2

Find if an expression has duplicate parenthesis

1. Output:

* What ever it is you desire

1. Input:

* Your input

1. Algorithm:

* Check to see if there is a right parathesis if not then find the left one
* Pop until you reach the right one if there are two then there is duplicates otherwise no

Problem #3

Find the Avg of a stream numbers using a stack or queue in python

1. Output/Input:

Whatever you desire and what ever you enter note that they can only be integers though

1. Algorithm:

nothing

1. Steps:

* Make a stack that holds stream numbers make them into floats if the number is even then divide it else round it to get a decimal and then divide