Algoritmos T.P. N° 4 - Juan Cruz Ambrosini

EJERCICIO 1:

from mylinkedlist import \*

from algo1 import \*

from MyArray import length

class LinkedList:

    head = None

class Node:

    value = None

    nextNode = None

*#-----------------------------------------------------------------------------------------------------*

array1 = [24, 45, 3, 67, 89, 345, 54, 22, 3, 678]

array2 = [46, 34, 64, 59, 12, 15, 234, 567, 12, 33]

*#-----------------------------------------------------------------------------------------------------*

def fillList(array):

    list = LinkedList()

    for i in range(0, length(array)):

        add(list, array[i])

    return list

*#-----------------------------------------------------------------------------------------------------*

listA = fillList(array1)

listB = fillList(array2)

*#-----------------------------------------------------------------------------------------------------*

def mergeLists(ListA, ListB):

    listC = LinkedList()

    current\_node\_a = listA.head

    current\_node\_b = listB.head

    for i in range(0, lengthList(listB)):

        add(listC, current\_node\_a.value)

        add(listC, current\_node\_b.value)

        current\_node\_a = current\_node\_a.nextNode

        current\_node\_b = current\_node\_b.nextNode

    return listC

*#-----------------------------------------------------------------------------------------------------*

def deleteEven(list):

    current = list.head

    while current != None:

        if current.value % 2 == 0:

            delete(list,current.value)

        current = current.nextNode

def noRepeatsAndAppend(listA, listB):

    current\_comparator = listA.head

    current = current\_comparator.nextNode

    counter = 0

    while current\_comparator.nextNode != None:

        while current != None:

            if current.value == current\_comparator.value:

                counter += 1

                for i in range(0, counter + 1):

                    delete(listA, current.value)

            current = current.nextNode

        counter = 0

        current\_comparator = current\_comparator.nextNode

        current = current\_comparator.nextNode

    current = listB.head

    while current != None:

        if current.value >= 50 and current.value <= 100:

            insert(listA, current.value, lengthList(listA))

        current = current.nextNode

*#-----------------------------------------------------------------------------------------------------*

invertList(listA)

invertList(listB)

listC = mergeLists(listA, listB)

invertList(listC)

print("Lista A")

showList(listA)

print("-----------------------------------------------------------")

print("Lista B")

showList(listB)

print("-----------------------------------------------------------")

print("Lista C")

showList(listC)

deleteEven(listC)

print("-----------------------------------------------------------")

print("Lista C Sin números pares")

showList(listC)

noRepeatsAndAppend(listA, listB)

print("-----------------------------------------------------------")

print("Lista A Sin números repetidos y con los elementos de la lista B requeridos.")

showList(listA)

Interfaz de usuario gráfica

El contenido generado por IA puede ser incorrecto.