

CS146: Quiz 3
Due Tuesday, February 14, at 7:00AM
10 points

For this quiz you will implement a brute force solution to the maximum-subarray problem that runs in $O(n^2)$ time (i.e., your solutions should have two nested loops). You will implement this solution for an array of ints and a simple LinkedList of ints. To get started, import the two starter files into the subarray package you created in a new Java Project. Please do not change any of the method signatures or any code in the provided LinkedList class. Implement the two methods described below. You are free to test your code however you prefer. These methods should be completed individually using any IDE you are comfortable with. You are free to use the textbook, slides, class notes, and the [Java API Documentation](#), but **DO NOT** consult any other resources.

```
public LinkedList findMaximumSubList(LinkedList nums)
```

This method should return a new LinkedList that represents the maximum sublist of the given LinkedList, nums. For example, the maximum sublist of

13->-3->-25->-20->-3->-16->-23->18->20->-7->12->-5->-22->15->-4->7

is

18->20->-7->12

```
public int[] findMaximumSubArray(int[] nums)
```

This method should return a new int[] that represents the maximum subarray of the given int[], nums. For example, the maximum subarray of

[13, -3, -25, -20, -3, -16, -23, 18, 20, -7, 12, -5, -22, 15, -4, 7]

is

[18, 20, -7, 12]

Submission

Please create a jar file of your project. It should include both java files (FindMaxSub.java and LinkedList.java) on Canvas. If your jar file includes your .class files as well, you will receive an automatic one point deduction. It is important that you learn how to correctly create a jar file. Please see the instructions on Canvas for creating a jar file of your Java Project in Eclipse and always double check that your jar file has the correct files in it.