

MiniAssignment 2–Due Oct 14th

Show all your computation to get full credit. This is an individual project, no groups are allowed

Assume that the monthly profits of a company are given in an array, each entry representing the profits for the corresponding month. Propose an algorithm to find a group of *consecutive* months where the profit was the highest.

For example, the profits, in millions, for a year Jan-Dec is given by

A=[2 -5 3 4 0 -1 5 8 -9 1 -2 0];

The highest profit was from the period March-August and the value is 19 million. Assume that the array can be very large—not just 12 months. Submit a well comment pseudocode along with an example of the algorithm works. Grading scheme: (your grade will be based on which ever class your algorithm falls in)

- For algorithms with complexity $O(n^3)$ or higher (4 pts)
- For algorithms with complexity $O(n^2)$ (6 pts)
- For algorithms with complexity $O(n \log n)$ (8 pts)
- For algorithms with complexity $O(n)$ (10 pts)