Programming Assignment 3

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1 Deadline

3/19/2020

2 Optimal Excavation

You are the owner of a large excavation company and you have recently bought a plot of land in which you suspect that there might be some valuable minerals. However, for environmental reasons, the government will only allow you to rake your bulldozer over single contiguous rectangular subplot. You have divided the plot of land into small square pieces, each of which you have assigned an integer value. The score of each square piece is positive if there are valuable minerals underneath but negative if you have an adverse effect on the environment (e.g. If you bulldoze over the habitat of an endangered species, that would be considered negative.).

Your bulldozer is advanced and can accomodate the excavation of any size rectangle. Your job is to determine the rectangle that contains the largest sum total of scores in your plot of land.

You will return the lower right corner and upper left corner of the rectangle. The upper left corner of the rectangle is $(1, 1)$ and the lower right corner is (N, N). The first coordinate is the row and the second coordinate is the column. The input file will have the value of N on the first line and then space-separated values of the square pieces line by line.