

Intent

We would like to see your coding style and the way you solve problems. Please get as far as you can get within 2 hours on the coding portion.

Problem

Your code should be a console application in C++, reading from file and writing to standard out.

Imagine a 5x4 grid (width x height). You will be given an input file containing N rectangles, with each line containing the upper left cell (row, column) where the rectangle should be placed in the grid and the dimension of the rectangle (width, height). Each rectangle in the input file must be placed completely within the grid at the indicated location without any overlaps.

```
row0, col0, width0, height0  
...  
rowN, colN, widthN, heightN
```

Example input file:

```
0, 0, 1, 1  
0, 1, 3, 1  
2, 0, 3, 2  
2, 3, 1, 2
```

Your goal will be to output the minimum number of rectangles required to fill the remaining space in the grid.

Deliver

When you are done, please email a zip file with the following:

- Your code
- Any test cases you used to test it
- A description of the algorithm you used
- Links or info on any resources you used for help
- The overall plan for what you'd do next and what you would improve if you were to do it again

Please contact us if you have any questions. There are no penalties for asking questions.