

[CS 11] Prac 0I – Moss Carpet

oj.dcs.upd.edu.ph/problem/cs11prac0I

Problem Statement

Steve has bought a new carpet for his house, and it's made of moss!

The floor of Steve's house can be represented as an $r \times c$ grid, i.e., a grid with r rows and c columns. Each cell of this grid represents a 1×1 tile of the floor.

We number the rows 0 to $r-1$ from top to bottom, and the columns 0 to $c-1$ from left to right.

The carpet has dimensions $r_1 \times c_1$ and will be placed over the $r \times c$ floor; The carpet will be placed in such a way that its sides are parallel to the sides of the grid, and the topleftmost cell covered by carpet is the cell in row i and column j .

In particular, exactly $r_1 \times c_1$ cells will be covered by moss carpet.

What does Steve's floor look like now?

Task Details

Your task is to implement a function called `carpet`. This function has six parameters `r`, `c`, `r1`, `c1`, `i` and `j` in that order, all `ints`, whose meanings are described in the problem statement. In particular, your function will be declared as follows:

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```
def carpet(r, c, r1, c1, i, j):
```

The function must return a `tuple` of `strs` representing an $r \times c$ grid illustrating Steve's floor. More precisely, this tuple must consist of exactly r `strs`, each of which represents a row and consists of exactly c characters. Each character is either `.` representing a floor tile not covered with carpet, or `#` representing a floor tile covered with carpet.

Example Calls

Example Function Call

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```
carpet(6, 9, 3, 4, 1, 2)
```

Example Return Value

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```
(
    ".....",
    "..####...",
    "..####...",
    "..####...",
    "..####...",
    ".....",
    ".....",
)
```

Constraints

When the program is run:

- The function `carpet` will be called at most 1,0001,000 times.
- $1 \leq r \leq 301 \leq r \leq 30$.
- $1 \leq c \leq 301 \leq c \leq 30$.
- $1 \leq r_1 \leq r_1 \leq r_1 \leq r$.
- $1 \leq c_1 \leq c_1 \leq c_1 \leq c$.
- $0 \leq i < r_0 \leq i < r$.
- $0 \leq j < c_0 \leq j < c$.
- It is guaranteed that the carpet is completely inside the floor's grid.

Scoring

You get 100100 ❤️ points if you solve all test cases correctly.

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Clarifications

No clarifications have been made at this time.

