7621 - LAB 11

Instructions

1. Access the auto-grader at https://c200.luddy.indiana.edu
2. Please write the code for the problems in python language
3. The code should be readable with variables named meaningfully
4. Plagiarism is unacceptable and we have ways to find it, so do not do it
5. Don't change the function signature (name of the function and number and types of arguments) provided in this file.
6. Once you pass all the tests on the auto grader, show your work to the teaching assistant

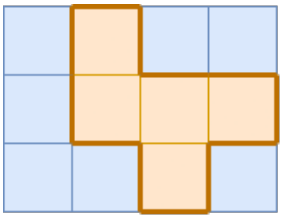
Problem

Question

You've stumbled upon a fascinating map represented by a row-by-column grid, where each cell grid [i][j] is either 1 (land) or 0 (water). The map is a mysterious island, completely surrounded by water, and contains exactly one island, consisting of one or more connected land cells. Each cell on the island is a square with a side length of 1. Determine the perimeter of the island.

Test cases

Input: grid = [[0,1,0,0],[0,1,1,1],[0,0,1,0]]
Output: 12



Function signature

```python
def perimeter(grid: list[list[int]]) -> int:
    pass
```