Power Play (Bonus)

ZPRAC-16-17-Lab8

[20]
Power Play (Bonus)

After wrecking Kilvish's evil plans, Shaktimaan needs a power boost. He goes to the Power Matrix where each cell contains a power booster (the value of cell represents power received on passing through that cell). Shaktimaan has to move on the matrix from first column to the last column collecting all the power present in the cells he moves through. He can start from any cell in first column and end at any cell in last column but once he starts moving, he can only go to the cell towards the right of the current cell or above or below the cell towards the right of the current cell i.e. if he is present in the cell (i,j) then he can only move to cell $(i-1,j+1),(i,j+1)$, and $(i+1,j+1)$. Considering Shaktimaan's initial power as zero, find the maximum power he can have after crossing the matrix.

Input: First line contains two integers h and w which represent height and width of the Money Matrix. Next h lines follow with w space separated integers representing the power gain on passing through a cell (≥ 0)
Output: Maximum power shaktimaan can have after moving according to the rules provided in the question.

Example:
Input:
3 4
1 9 10 3
3 2 1 1
9 1 1 0
Output:
25
Explanation: The path taken will be 3→9→10→3