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def clean(floor):
    row, col = len(floor), len(floor[0])
    total_cost = 0

    for i in range(row):
        if i % 2 == 0:
            for j in range(col):
                if floor[i][j] == 1:
                    print_F(floor, i, j)
                    floor[i][j] = 0
                    total_cost += 1
                    print_F(floor, i, j)
            else:
                for j in range(col - 1, -1, -1):
                    if floor[i][j] == 1:
                        print_F(floor, i, j)
                        floor[i][j] = 0
                        total_cost += 1
                        print_F(floor, i, j)

    return total_cost

def print_F(floor, row, col):
    print("The Floor matrix is as below:")
    for r in range(len(floor)):
        for c in range(len(floor[r])):
            if r == row and c == col:
                print(f" >{floor[r][c]}< ", end='')
            else:
                print(f" {floor[r][c]} ", end='')
        print()
    print()

def main():
    floor = []
    m = int(input("Enter the No. of Rows: "))
    n = int(input("Enter the No. of Columns: "))

    print("Enter clean status for each cell (1 - dirty, 0 - clean):")
    for i in range(m):
        row = []
        for j in range(n):
            value = int(input(f"Enter value for cell ({i+1}, {j+1}): "))
            row.append(value)
        floor.append(row)

    print()
    total_cost = clean(floor)
    print(f"Total cost is: {total_cost}")

main()
print("Goal achieved")

```

Enter the No. of Rows: 1

Enter the No. of Columns: 2

Enter clean status for each cell (1 – dirty, 0 – clean):

Enter value for cell (1, 1): 1

Enter value for cell (1, 2): 0

The Floor matrix is as below:

>1< 0

The Floor matrix is as below:

>0< 0

The Floor matrix is as below:

0 >0<

Total cost is: 1

Goal achieved

Enter the No. of Rows: 1

Enter the No. of Columns: 2

Enter clean status for each cell (1 - dirty, 0 - clean):

Enter value for cell (1, 1): 0

Enter value for cell (1, 2): 1

The Floor matrix is as below:

>0< 1

The Floor matrix is as below:

0 >1<

The Floor matrix is as below:

0 >0<

Total cost is: 1

Goal achieved

Enter the No. of Rows: 1
Enter the No. of Columns: 2
Enter clean status for each cell (1 - dirty, 0 - clean):
Enter value for cell (1, 1): 1
Enter value for cell (1, 2): 1

The Floor matrix is as below:
>1< 1

The Floor matrix is as below:
>0< 1

The Floor matrix is as below:
0 >1<

The Floor matrix is as below:
0 >0<

Total cost is: 2
Goal achieved