Problem Set 3 Exercise #23: Maximum Row Sum and Column Sum of Matrix

Reference: Lecture 9 notes

Learning objective: Two-dimensional array

Estimated completion time: 40 minutes

Problem statement:

Write a program **max_row_col_sums.c** that reads a matrix of integers and prints out the maximum row sum of all the rows, followed by the maximum column sum of all the columns.

Your program should contain the following two functions to compute and return the maximum row sum and column sum of the given matrix respectively.

```
int get_max_row_sum(int mtx[NROWS][NCOLS], int num_rows,
                    int num_cols)
int get_max_col_sum(int mtx[NROWS][NCOLS], int num_rows,
                    int num_cols)
```

You may assume that both **NROWS** and **NCOLS** have the value 10.

Sample run #1:

```
Enter the size of the matrix: 4 5
Enter elements row by row:
1 0 1 0 1
0 1 0 1 0
1 0 1 0 1
0 1 0 1 0
Max row sum = 3
Max col sum = 2
```

Sample run #2:

```
Enter the size of the matrix: 4 6
Enter elements row by row:
67 50 26 3 35 17
50 26 3 35 67 3
26 3 35 50 67 35
3 26 35 50 67 68
Max row sum = 249
Max col sum = 236
```