Problem Set 3 Exercise #21: Minimum and Maximum Matrix Elements

Reference: Lecture 9 notes

Learning objectives: Two-dimensional array; Pointers

Estimated completion time: 20 minutes

Problem statement:

Write a program **min_max.c** that prints out the minimum and maximum elements of an integer 2D array. Your program should contain a function

```
void get_min_max(int mtx[MAX_ROWS][MAX_COLS], int num_rows,
                 int num_cols, int *min_p, int *max_p)
```

that returns the minimum and maximum elements in 2D array **mtx** through two pointers. **MAX_ROWS** and **MAX_COLS** are two symbolic constants with value 10. They represent the declared size of **mtx**. **num_rows** and **num_cols** are the actual number of rows and columns to process.

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
Min = 0
Max = 1
```

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
Min = 3
Max = 68
```

Useful tip:

For testing, you may copy input data from the PDF file instead of typing them in manually.