Name: Mubashar Khan **Assignment #:** 6

Summary of Problem Statement

Problem # 2

Write a script that determines the overall maximum and minimum value of a matrix and the location of each WITHOUT using the max or min function or implicit loops.

Known / Input

Matrix = user defined matrix
Percent_Diff = user defined percentage difference

Unknown / Output

location1 = stores the x coordinate
location2 = stores the y coordinate
upper_Limit = starts at infinity and changes to the smallest value
position1 = stores the x coordinate
position2 = stores the y coordinate
lower_Limit = starts at negative infinity and changes to the largest value

Assumptions

None

Other Variables

None

Algorithm

Start by asking the user to input a matrix
Get the number of rows and columns of the matrix using size()
Create a max and min value such as positive and negative infinity
Create a nested for loop with rows on the outside and columns on the inside
    set up a conditional that checks to see if the value from Matrix is smaller than or larger than your max/min value
    create 2 variables to store the row and column locations in the conditional statement

Test Cases

Tested using the test case: [-1 3 7 9 14; -6 -9 12 7 5]

Output: minimum = -9 at a location (2,2)
    maximum = 14 at a location (1,5)