

**School of Computer Science and Information Systems CSIS 44-542 Computer Science II**

**Fall 2021**

***Tuesday, October 05, 2021***

**Main Topic**: Using 2-D arrays, passing arrays as parameters, and returning arrays from a method.

# Problem:

Write a program:

1. Create a 50x50 two-dimensional array of integers called myData.
2. Populate the array so that the value stored at myData[i][j] is set to i\*j-i;
3. Write a method, called colAverage, that takes/accepts/receives myData as a parameter and returns a one- dimensional array of doubles called averages. The method colAverage should calculate the average (as a double) of each column in myData and store the value in the corresponding position of averages.
4. Display the result of the returned array, averages, as shown in the sample output below.

# Sample output:

|  |  |
| --- | --- |
| Average[ 0] = | -24.50 |
| Average[ 1] = | 0.00 |
| Average[ 2] = | 24.50 |
| Average[ 3] = | 49.00 |
| Average[ 4] = | 73.50 |
| Average[ 5] = | 98.00 |
| Average[ 6] = | 122.50 |
| Average[ 7] = | 147.00 |
| Average[ 8] = | 171.50 |
| Average[ 9] = | 196.00 |
| Average[10] = | 220.50 |
| Average[11] = | 245.00 |
| Average[12] = | 269.50 |
| Average[13] = | 294.00 |
| Average[14] = | 318.50 |
| Average[15] = | 343.00 |
| Average[16] = | 367.50 |
| Average[17] = | 392.00 |
| Average[18] = | 416.50 |
| Average[19] = | 441.00 |
| Average[20] = | 465.50 |
| Average[21] = | 490.00 |
| Average[22] = | 514.50 |
| Average[23] = | 539.00 |
| Average[24] = | 563.50 |
| Average[25] = | 588.00 |
| Average[26] = | 612.50 |
| Average[27] = | 637.00 |
| Average[28] = | 661.50 |
| Average[29] = | 686.00 |
| Average[30] = | 710.50 |

|  |  |  |
| --- | --- | --- |
| Average[31] = | 735.00 |  |
| Average[32] = | 759.50 |  |
| Average[33] = | 784.00 |  |
| Average[34] = | 808.50 |  |
| Average[35] = | 833.00 |  |
| Average[36] = | 857.50 |  |
| Average[37] = | 882.00 |  |
| Average[38] = | 906.50 |  |
| Average[39] = | 931.00 |  |
| Average[40] = | 955.50 |  |
| Average[41] = | 980.00 |  |
| Average[42] = | 1004.50 |  |
| Average[43] = | 1029.00 |  |
| Average[44] = | 1053.50 |  |
| Average[45] = | 1078.00 |  |
| Average[46] = | 1102.50 |  |
| Average[47] = | 1127.00 |  |
| Average[48] = | 1151.50 |  |
| Average[49] = | 1176.00 |  |
|  |  | Michael Oudshoorn February 24, 2018 |