**University of Michigan – Dearborn**

**CIS 150 – Computer Science 1**

**Lab# 9**

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March 18, 2020

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# Question 1

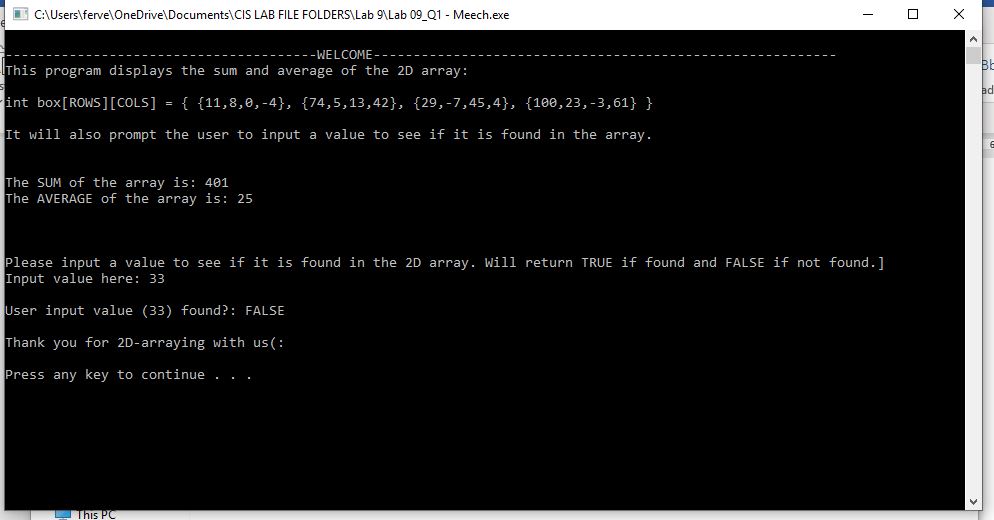
## Test Cases

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test # | Valid / Invalid Data | Description of test | Input Value | Actual Output | Test Pass / Fail |
| 1 | valid | Test if searched value will return a true or false properly in 2D array | See screenshot | See screenshot | pass |
| 2 | valid | Test if searched value will return a true or false properly in 2D array | See screenshot | See screenshot | pass |
| 3 | valid | . Test if 2D array sum and average found accurately | See screenshot | See screenshot | pass |
| 4 | valid | . Test if 2D array sum and average found accurately | See screenshot | See screenshot | pass |

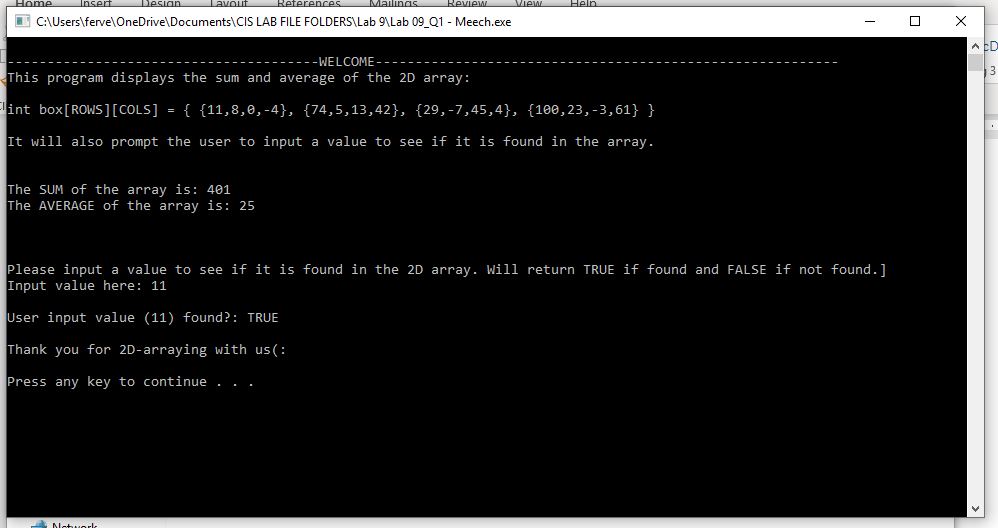
## Source Code – see LAB9Q1.cpp

## Screenshots

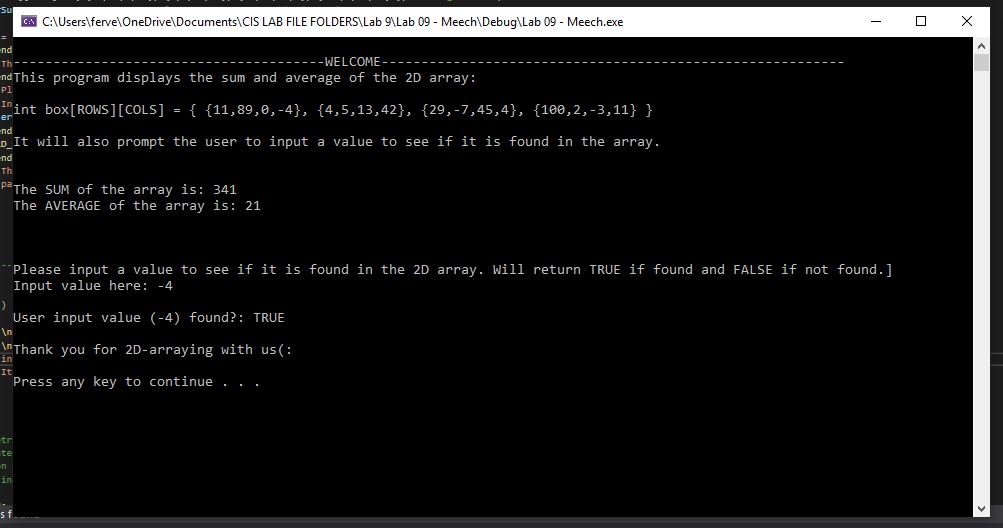
TEST 1



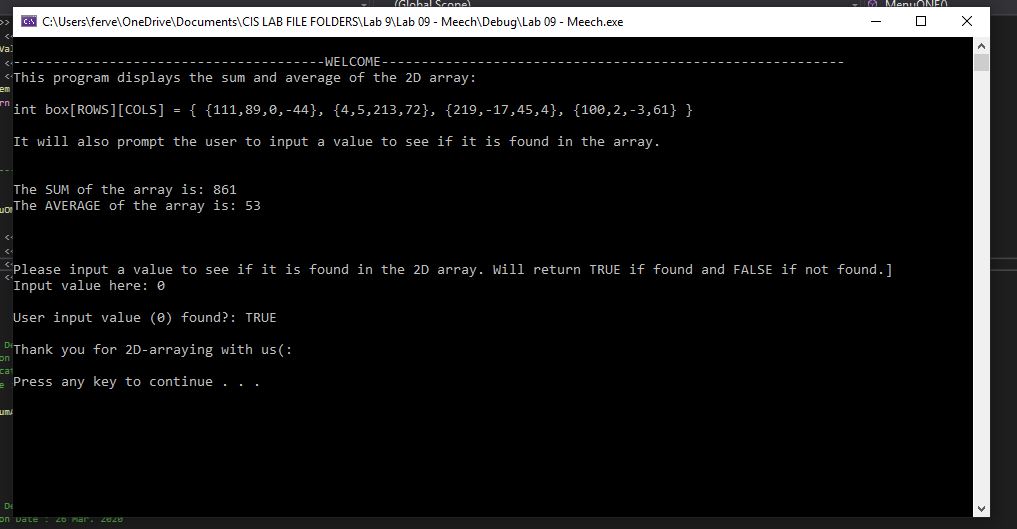
TEST 2



TEST 3



TEST 4



# Question 2

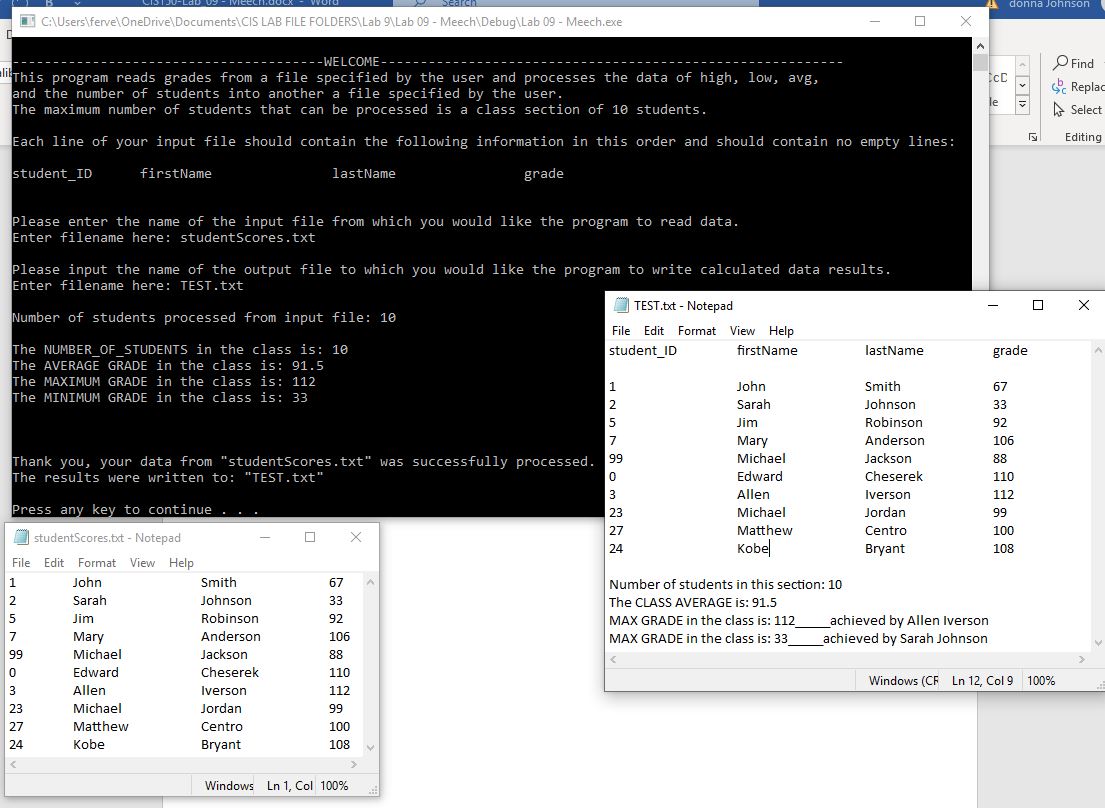
## Test Cases

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test # | Valid / Invalid Data | Description of test | Input Value | Actual Output | Test Pass / Fail |
| 1 | valid | See if a different number of students from file can be processed effectively | 10 students file | See screenshot | pass |
| 2 | valid | See if a different number of students from file can be processed effectively | 7 students file | See screenshot | pass |
| 3 | valid | See if a different number of students from file can be processed effectively | 6 students file | See screenshot | pass |
| 4 | valid | See if a different number of students from file can be processed effectively | 5 students file | See screenshot | pass |

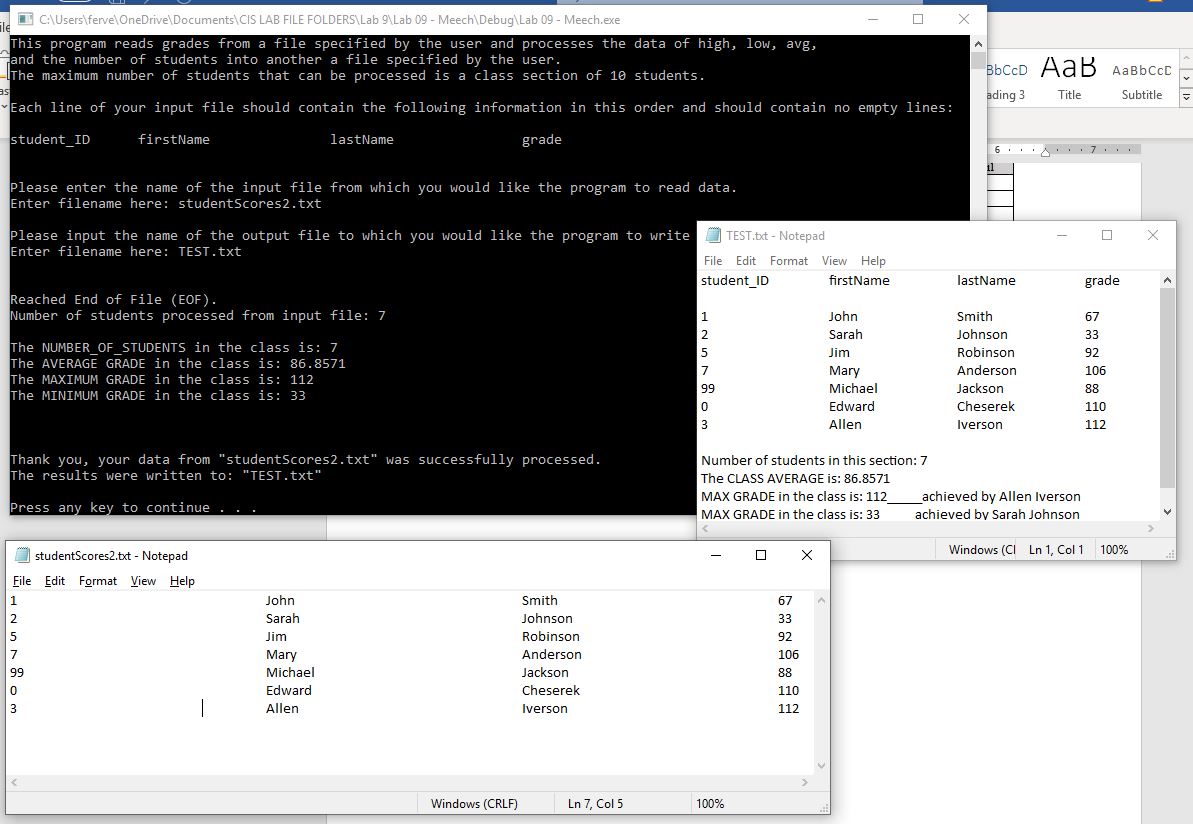
## Source Code – see LAB9Q2.cpp

## Screenshots

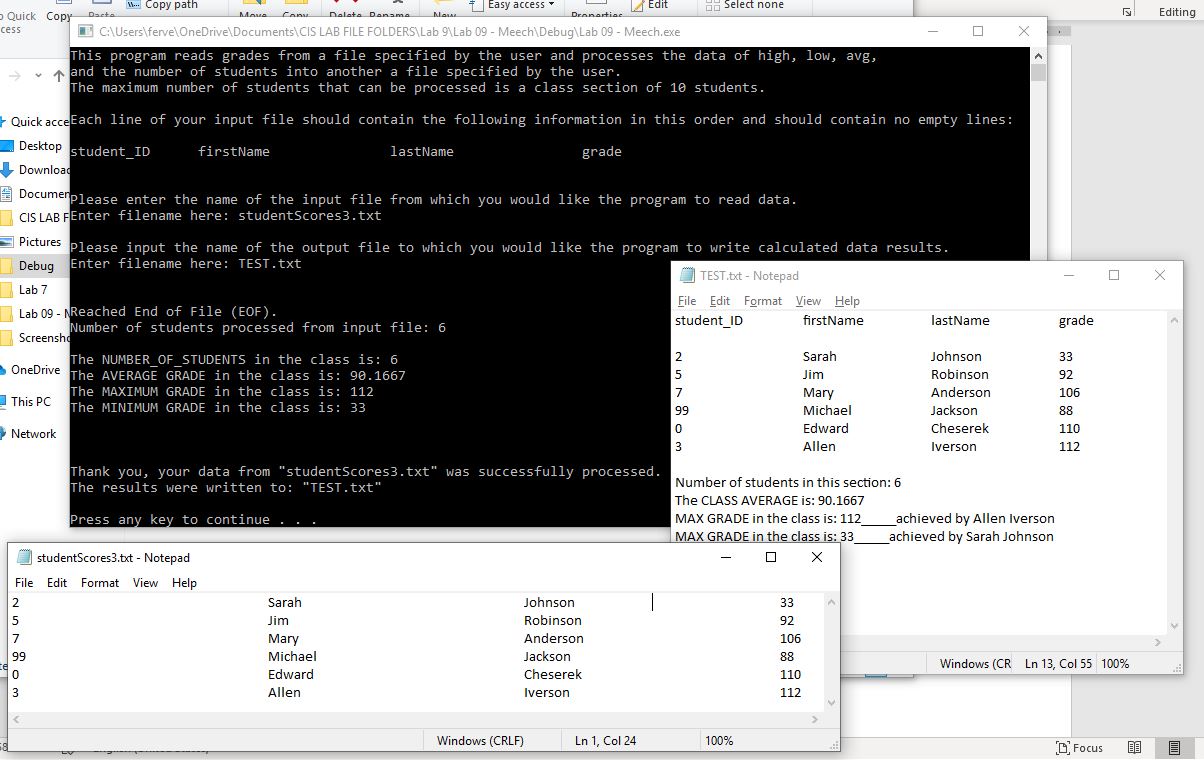
TEST 1



TEST 2



TEST 3



TEST 4

