

**Allen E. Paulson College of Engineering& Computing**

**Department of Information Technology**

**Lab 3**

Report for **Lab 3** that is due on Thursday, February 3, 2022

As part of ITW 2431 Data Programming II

**Name: Michael Patak**

**Date of Submission: Thursday, February 3, 2022**

# Section 1 – Lab 3 Prob 1 Purpose(s) of Program Problem, Output of Sample Run, and Learning Experience

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| 1. **Purpose(s) of Problem:**   The program will read the data from a file. The filename will be input by the user. The program will  check to see if a line that starts with 'From', and if it does the program will split the line into words  using the split function. If the line starts with 'From' the second word will be printed out. The  program will count the number of lines that start with 'From' and print out the total. |
| 1. **Source Code File Name:** ITW2431\_L3\_P1\_mpatak.py |
| 1. **Other Supporting File(s) (if any):** mbox-short.txt |
| 1. **Hours Spent on Developing the Solution of the Problem and Writing the Program:** 1 hour |
| 1. **The Output of Program Sample Run:** |
| 1. **Overall Learning Experience for the Problem:**   **This is probably less a learning experience than my assessment.**  **I like problems like this problem where you can easily break done the steps into very clear parts of what needed to be done.**   * **open a file** * **read line from a file** * **parse the line into a list** * **check the list for a specific word** * **perform some action when the word is in the list**   **The first three bullets I would create a function that performs these actions so I would not have to**  **keep coding them over and over again.** |

# Section 2 – Lab 3 Prob 2 Purpose(s) of Program Problem, Output of Sample Run, and Learning Experience

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| 1. **Purpose(s) of Problem:**   The program will prompt the user to input a list of numbers and stores them in a list using a loop.  The program and will then print the maximum and minimum numbers after the loop completes. |
| 1. **Source Code File Name**: ITW2431\_L3\_P2\_mpatak.py |
| 1. **Other Supporting File(s) (if any):** n/a |
| 1. **Hours Spent on Developing the Solution of the Problem and Writing the Program:** 30 minutes |
| 1. **The Output of Program Sample Run:** |
| 1. **Overall Learning Experience for the Problem:**   This problem re-enforced techniques learned during previous exercises. For this problem I coded to be able to handle integers and floats. If an integer is entered it is converted to a float before appending it to the list. The max() and min() work the same for integer and float types so I did not have to do anything there. |