

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

**Department of Information Technology**

**Project 8**

Report for **Project 8** that is due on Sunday, March 13, 2022

As part of ITW 2431 Data Programming II

**Name: Michael Patak**

**Date of Submission: Sunday, March 13, 2022**

# Section 1 – Project 8 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 a text file of student grade data. The program will use regular expressions to  parse the data and load it into a dictionary. The program will then output the contents of the  dictionary, extract and output the list of students, output the sum for exam 1, output the average  for exam 2, output each student and their class grade, the average grade for all students in the  class, and how many students have a grade above the average. |
| 1. **Source Code File Name:** ITW2431\_P8\_P1\_mpatak.py |
| 1. **Other Supporting File(s) (if any):** student\_data.txt |
| 1. **Hours Spent on Developing the Solution of the Problem and Writing the Program:** 3 hours |

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| 1. **The Output of Program Sample Run:** |
| 1. **Overall Learning Experience for the Problem:**   This was a challenging project. The regular expressions took some time to figure out. Because there were several different actions to perform on the data, I created separate functions to encapsulate the code for easier debugging. Also, you never know when you may need to reuse that functionality in another program. |