



GEORGIA SOUTHERN
UNIVERSITY

**Allen E. Paulson College of Engineering & Computing
Department of Information Technology**

Project 1

Report for **Project 1** that is due on Sunday, January 23, 2022
As part of ITW 2431 Data Programming II

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Date of Submission: Sunday, January 23, 2022

Section 1 – Project 1 Problem 1 Purpose(s) of Program Problem, Output of Sample Run, and Learning Experience

1. Purpose(s) of Problem: The program will take 4 user inputs as variables. The program will calculate the total price paid by the customer. The program will print out the price paid two different ways.
2. Source Code File Name: ITW2431_P1_P1_mpatak.py
3. Other Supporting File(s) (if any): n/a
4. Hours Spent on Developing the Solution of the Problem and Writing the Program: 1 hour
5. The Output of Program Sample Run: <pre>PS C:\Users\mp7863\..Mike stuff\GSU\ITW2431 Data Programming II\ITW2431 Assignments\module_1> python ITW2431_P1_P1_mpatak.py Please enter the customer's name: Mike Please enter the unit price for the goods: 2.75 Please enter the number of goods purchased: 4 Please enter the name for the goods: notebook The customer Mike paid totally \$11.0 for 4 items of notebook The customer Mike paid totally \$11.00 for 4 items of notebook PS C:\Users\mp7863\..Mike stuff\GSU\ITW2431 Data Programming II\ITW2431 Assignments\module_1> </pre>
6. Overall Learning Experience for the Problem: For this problem I did not to just print out the result the default way and as a float rounded with two significant digits. I imported the locale module so that I could format the result using locale.currency(), so that the currency function would add the '\$' and have two significant digits representing the cents.

Section 2 – Project 1 Problem 2 Purpose(s) of Program Problem, Output of Sample Run, and Learning Experience

1. Purpose(s) of Problem: Program will take as input a number. The number will be how many rows of stars (asterisks) to print out as a pyramid.
2. Source Code File Name: ITW2431_P1_P2_mpatak.py
3. Other Supporting File(s) (if any): n/a
4. Hours Spent on Developing the Solution of the Problem and Writing the Program: 1 hour
5. The Output of Program Sample Run:

```
PS C:\Users\mp7863\..Mike stuff\GSU\ITW2431 Data Programming II\ITW2431 Assignments\module_1> python ITW2431_P1_P2_mpatak.py
Please input the row number: 2
*
**

PS C:\Users\mp7863\..Mike stuff\GSU\ITW2431 Data Programming II\ITW2431 Assignments\module_1> python ITW2431_P1_P2_mpatak.py
Please input the row number: 3
*
**
***

PS C:\Users\mp7863\..Mike stuff\GSU\ITW2431 Data Programming II\ITW2431 Assignments\module_1> python ITW2431_P1_P2_mpatak.py
Please input the row number: 4
*
**
***
****
*****

PS C:\Users\mp7863\..Mike stuff\GSU\ITW2431 Data Programming II\ITW2431 Assignments\module_1> python ITW2431_P1_P2_mpatak.py
Please input the row number: 5
*
**
***
****
*****
*****
*****
```

6. Overall Learning Experience for the Problem: The prepending spaces unto a string was challenging at first. Then I found the build the string of 'stars' first and indenting the string the correct number of spaces worked great with just a few lines of code.

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

1. **Purpose(s) of Problem:** The program will read an input file named 'ExamGrade.txt'. Each line of the file contains a numerical grade. The program will read each line and output the student and grade. After reading every grade the program will calculate the average of all grades.

2. **Source Code File Name:** ITW2431_P1_P3_mpatak.py

3. **Other Supporting File(s) (if any):** ExamGrade.txt

4. **Hours Spent on Developing the Solution of the Problem and Writing the Program:** 1 hour

5. **The Output of Program Sample Run:**

```
PS C:\Users\mp7863\..Mike stuff\GSU\ITW2431 Data Programming II\ITW2431 Assignments\module_1> python ITW2431_P1_P3_mpatak.py
Student 1: 98
Student 2: 87
Student 3: 76
Student 4: 88
Student 5: 75
Student 6: 79
Student 7: 85
Student 8: 83
Student 9: 76
Student 10: 56
Student 11: 66
Student 12: 74
Student 13: 93
The average grade for the class is: 79.69
PS C:\Users\mp7863\..Mike stuff\GSU\ITW2431 Data Programming II\ITW2431 Assignments\module_1> |
```

6. **Overall Learning Experience for the Problem:** The problem was a good refresher for reading and parsing text files with Python.

Section 4 – Assignment xx Prob x Purpose(s) of Program Problem, Output of Sample Run, and Learning Experience

1. Purpose(s) of Problem:
2. Source Code File Name:
3. Other Supporting File(s) (if any):
4. Hours Spent on Developing the Solution of the Problem and Writing the Program:
5. The Output of Program Sample Run:
6. Overall Learning Experience for the Problem:

Section 5 – Assignment xx Prob x Purpose(s) of Program Problem, Output of Sample Run, and Learning Experience

1. Purpose(s) of Problem:
2. Source Code File Name:
3. Other Supporting File(s) (if any):
4. Hours Spent on Developing the Solution of the Problem and Writing the Program:
5. The Output of Program Sample Run:
6. Overall Learning Experience for the Problem: