

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

**Department of Information Technology**

**Lab 1**

Report **Lab 1** that is due on Friday, January 20, 2022

As part of ITW 2431 Data Programming II

**Name: Michael Patak**

**Date of Submission: Friday, January 20, 2022**

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

|  |
| --- |
| 1. **Purpose(s) of Problem:** Program will take as input from the user a number. The number will be how many rows of stars (asterisks) to print out as a triangle. The program has a function draw\_star() that takes an integer as input. For example, if the input number is ‘3’ the draw\_star() will print out one star ‘\*’ for the first line, it will print out two stars ‘\*\*’ for the second line, and it will print out three stars ‘\*\*\*’ for the third line. |
| 1. **Source Code File Name:** ITW2431\_L1\_P1\_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:** 1 hour |
| 1. **The Output of Program Sample Run:** |
| 1. **Overall Learning Experience for the Problem: This problem was a good refresher for using nested loops. I used a string variable to build the out string for each line. I initially set the string variable to an empty string and would concatenate a ‘\*’ each iteration through the inner loop.** |

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

|  |
| --- |
| 1. **Purpose(s) of Problem: The program will check if a word as taken as input is a palindrome (a word spelled the same forwards and backwards). The program will then reverse the order of the letters in the word. The program will then compare the original word with the reversed word and if they are the same then the word is a palindrome, otherwise it is not a palindrome.** |
| 1. **Source Code File Name:** ITW2431\_L1\_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:** 1 hour |
| 1. **The Output of Program Sample Run:** |
| 1. **Overall Learning Experience for the Problem: I had to go back and review string slicing in Python. Once I did that, I remember the command to read a string from the last character to the first**   **s[::-1] . Other than that, I did not have any problems with this lab.** |