

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

**Department of Information Technology**

**Lab 10**

Report for **Lab 10** that is due on Thursday, March 24, 2022

As part of ITW 2431 Data Programming II

**Name: Michael Patak**

**Date of Submission: Thursday, March 24, 2022**

# Section 1 – Lab 10 Prob 1 Purpose(s) of Program Problem, Output of Sample Run, and Learning Experience

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| 1. **Purpose(s) of Problem:**   Create a class named "Circle". The class will have two methods, calc\_perimeter() and calc\_area().  The program will use two values for the radius and calculate the perimeter and area based on the  radius. The program will output the radius value, the calculated perimeter, and the calculated area. |
| 1. **Source Code File Name:** ITW2431\_L10\_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:** 1.5 hours |
| 1. **The Output of Program Sample Run:** |
| 1. **Overall Learning Experience for the Problem:**   The syntax for Python classes is different than what I am used to with Java and C++. Once, I got comfortable with the differences the actual writing the program was easy. |

# Section 2 – Lab 10 Prob 2 Purpose(s) of Program Problem, Output of Sample Run, and Learning Experience

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| 1. **Purpose(s) of Problem:**   Create a class named "bankBalance". The class will have two methods, deposit() and withdraw().  The program will initialize two objects with an initial balance of $1000 and $2000 dollars. The  program will make a deposit and a withdraw to each account and print out the ending balance. |
| 1. **Source Code File Name**: ITW2431\_L10\_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:**   The syntax for Python classes is different than what I am used to with Java and C++. Once, I got comfortable with the differences the actual writing the program was easy. |

# Section 1 – Lab 10 Prob 3 Purpose(s) of Program Problem, Output of Sample Run, and Learning Experience

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| 1. **Purpose(s) of Problem:**   Create a class named "GOT\_cast". The class will have two methods, one for calculating a cast  members BMI and a second for determining the cast members BMI category. The program  will output the cast members name, height, weight, BMI, and BMI category. |
| 1. **Source Code File Name:** ITW2431\_L10\_P3\_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:**   The syntax for Python classes is different than what I am used to with Java and C++. Once, I got comfortable with the differences the actual writing the program was easy. |