**ICS3U Repetition Assignment #2**

**Complete the following questions using Python’s ‘For’ loop. Add appropriate documentation to your solutions (e.g., header and comments). Choose meaningful variable names for each program. Submit a copy of the solution to your member’s folder when complete.**

1. **Write** the outputs of the following loops:
   1. for count in range(5):

print (count + 1)

* 1. for count in range(1, 5):

print (count,)

* 1. for count in range(1, 6, 2):

print (count,)

* 1. for count in range(6, 1, -1):

print (count,)

**Save as forLoopOutput.py**

1. **Using a ‘for’ loop,** write a program that finds the sum of all squares from 1 to 100. Each output (of number squared) should begin on a new line. **(10 marks)**

**Save as forSumSquares.py**

1. **Using a ‘for’ loop** write a program that outputs the first 20 powers of 5. **(10 marks)**

**Save as twentyPowersFive.py**

1. **Using a ‘for’ loop** write a program that will determine how many days it will take for 50% of a lawn to die, if 6% of the lawn dies each day and you started with 100 units of grass. **(10 marks)**

**Save as lawnDies.py**

1. **Write** a program that will find all 3 digit numbers that are equal to the sum of the cubes of their digits. (e.g., 13 + 53 +33 = 153). **Determine** which kind of Python loop to use (while/for). **(10 marks)**

**Save as armstrongNum.py**

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| **Rubric** | | | | |
| Categories | Level 1 (50 - 59%) | Level 2 (60 - 69%) | Level 3 (70 - 79%) | Level 4 (80 - 100%) |
| Demonstrate the ability to identify and  correct syntax, logic, and run-time errors in  computer programs | -demonstrates limited knowledge of content | -demonstrates some knowledge of content | -demonstrates considerable knowledge of content | -demonstrates thorough knowledge of content |
| Use of sequence, selection, and repetition control  structures to create programming solutions | -uses sequence and selection skills with limited effectiveness | -uses sequence and selection skills with some effectiveness | -uses sequence and selection skills with considerable effectiveness | -uses sequence and selection skills with a high degree of effectiveness |

Note: A student whose achievement is below Level 1 (50%) has not met the expectations for this assignment or activity.