**GIS610 Exercise 3**

**Due 2/22/2019 @ 11:59 PM**

To answer the following questions you may use any available resource (e.g. slides, code samples from walkthroughs, Internet). If you’re stuck on a question we want to see your thought process. In your answer please provide comments

To provide your answers for questions 1 – 4 and 11 please create a Word document and name it **lastName\_firstName\_Exercise3**. Upload that Word Document to the Blackboard assignment labeled **Exercise 3**.

1. Explain in a few sentences the differences between properties and methods in Python.

* *A property contains built in functions which can return a property specific object. Properties objects contain three methods which are: getter(), setter(), and delete().*
* *Whereas, a method is defined within a class which makes them dependent on a referenced class. A method can be bounded or unbounded and refers to a function which is part of a class or an object. The method will always be a verifiable part of the class or object that “works” or “runs.” Methods are also a function which is a member of a class.*
* *Therefore, the difference between properties and methods is that properties contain built-in functions which utilize three standard methods versus methods which are functions.*

1. Look at the following statements below and indicate if each one is a property or method and why.
   1. arcpy.env.overwriteOutput = True

* *Method (confirms class or object “runs”)*
  1. arcpy.SearchCursor(“roads”, “TYPE” <> 4’)
* *Property (contains three method parameters)*
  1. row.setValue(‘distance’,100)
* *Property (contains getter “distance” and setter “100”)*
  1. ArcGISProject.dateSaved
* *Method (function is member of class)*
  1. Table.isBroken
* *Method (function is member of class)*

1. Review the following function and explain what you think is happening. Are parameters being passed into the function? If so, what’re their data types? Write what you think the output of the function would be if it were invoked/called.

def letterFunc(wordParam1, wordParam2):

if (wordParam1[0].lower() == wordParam2[0].lower()):

return True

else:

return False

*This function defines two string parameters within an if-else statement. Yes, the two parameters are being passed into the function. The parameter data for .lower() is also a method with no input. The output for this function would return “True” results where the first word or letter of text AND second word and letter of a text variables are lower case. A false output result would be produced if the letters in the two text entries were capitalized.*

1. Write a function definition which satisfies the following requirements:
   1. Accepts a list of names as a parameter
   2. Prints ‘Happy Birthday’ to each person

bdayNameList = [“Justin”, “Jim”, “Jimmer”, “James”, “Cyrus”]

def bdayNamesFuctions(names):

names = bdayNamesList(0,1,2,3,4,5)

if names == bdayNamesList

return (“True”)

else:

return(“False”)

def bdayNamesListPrint(names):

if bdayNamesFunctions == (“True”)

print (“Happy Birthday To You ” + bdayNamesList[0,1,2,3,4,5] + “ !”)