Name:_________________________________________ Partners: _______________________________

Python Activity 15: Writing to Files

Learning Objectives
Students will be able to:
Content:
• Explain the purpose of write() functions
• Explain the difference between writing and appending to a file
Process:
• Write code that opens, writes to and closes a file
Prior Knowledge
• Python concepts from Activities 1-13

1. Enter and execute the following program:

```python
def studentInfo():
    lastName = input("Last name: ")
    firstName = input("First name: ")
    studentID = input("Enter ID: ")

    inFile = open("studentInfo.txt","a")
    inFile.write("Name: "+firstName + " "+lastName)
    inFile.write("\nStudentID: " +studentID)
    inFile.write("\n")
    inFile.close()
    print("Done! Data is saved in file: studentInfo.txt")

##### Call the function! #####
if __name__ == '__main__':
    studentInfo()
```

a. What output appears on the screen? _____________________________________________

b. What does the program do? ____________________________________________________

c. Locate the file studentInfo.txt on your computer. The file is stored in the same folder as
   the program. What is stored in the file? _______________________________________

d. Change the argument ‘a’ to ‘w’ in the call to the open function. What is the purpose of
   the “w” in the following line of code?
   ```python
   inFile = open("studentInfo.txt", 'w')
   ```
   ____________________________________________

e. Did you create the file: studentInfo.txt separately from the program code? _________

f. Execute the program again using different input. Open the studentInfo.txt file. What is
   in the file? Is the data from the first program execution still there? __________________
g. Change the ‘w’ to ‘a’ in the open() function. Execute the program again with different input. Examine the studentInfo.txt file. What did ‘a’ as an argument in the open() function do?

h. Notice the function – write(). How many arguments does the write function have? _____

i. How does the write() function know what file to write to? __________________________

j. What line of code closes the file? Where is the line of code positioned in the program?

k. Rewrite the program so that the user can enter three names during one execution of the program. You may need to change the order of some of the code.

Application Questions: Use the Python Interpreter to check your work

1. Write a program that randomly generates 1000 numbers between 1 and 25 and writes the numbers to a file, one number per line.
2. Write a program that prompts the user for the following information: name, student ID, number of credits earned. After the program gathers the first round of information, it should ask the user “Continue (Y/N)?”, and if the user enters ‘Y’ the program should collect another round of name, student ID, number of credits earned. This process should repeat until the user enters ‘N’ to the continue question. Store all the information in a file.