Strings and Text Files

Name: Jashan Rai

**String Exercises**

1. Assume that the variable data refers to the string "myprogram.exe".

Write the values of the following expressions:

a. data[2]

‘p’

b. data[-1]

‘e’

c. len(data)

13

d. data[0:8]

‘myprogra’

2. Assume that the variable data refers to the string "myprogram.exe". Write the expressions that perform the following tasks:

a. Extract the substring "gram" from data.

data[5:9]

b. Truncate the extension ".exe" from data.

data[0:9]

c. Extract the character at the middle position from data.

data [len(data)/2]

3. Assume that the variable myString refers to a string. Write a code segment that uses a loop to print the characters of the string in reverse order.

for index in range (len(myString) -1, -1, -1):

print(myString[index],)

4. Assume that the variable myString refers to a string, and the variable

reversedString refers to an empty string. Write a loop that adds the characters from myString to reversedString in reverse order.

For ch in myString:

reversedString= ch + reversedString

**String Methods**

1. Assume that the variable data refers to the string "Python rules!". Use a string

method from the table to perform the following tasks:

a. Obtain a list of the words in the string.

data.split ()

b. Convert the string to uppercase.

data.upper ()

c. Locate the position of the string "rules".

data.find(“rules”)

d. Replace the exclamation point with a question mark.

data.replace (“!”,”?”)

2. Using the value of data from Exercise 1, write the values of the following

expressions:

1. data.endswith('i')

False

1. " totally ".join(data.split())

'Python totally rules!'

**Text Files Exercises**

**Use IDLE for the following code segments and save and print each problem separately and attach to this worksheet.**

1. Write a code segment that opens a file named **myfile.txt** for input and prints the number of lines in the file. (text1.py)
2. Write a code segment that opens a file for input and prints the number of four-letter words in the file. (text2.py)
3. Assume that a file contains integers separated by newlines. Write a code segment that opens the file and prints the average value of the integers. (text3.py)
4. Write a code segment that prints the names of all of the items in the current working directory. (text4.py)
5. Write a code segment that prompts the user for a filename. If the file exists, the program should print its contents on the terminal. Otherwise, it should print an error message. (text5.py)