Grade Calculator

LAB # 9

By

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***“On my honor, as a Mississippi State University student, I have neither***

***given nor received unauthorized assistance on this academic work.”***

Signatures:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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CSE-1284-06-201430 Intro to Computer Programming

Class Section # 6

Josh Crowson

11/12/3014

**Analysis and Conclusions**

Understanding how to open a file was very important in this lab. We used a function to call the calculations and open the file to run the required calculations. We created empty lists to start with and used splicing to cut up the list that was pulled into the function by the file and split it up accordingly. Having the name of each section was a vital importance to this. We had to play with the wording of the for loop to get it to work with both the lists but after we incorporated the ‘\n’ into the wording it worked correctly. After the lists were created we used basic math functions along with the len function to determine the average of each list for each of the categories. Using the percentages provided in the lab we used basic math multiplication and added them up to receive the final grade for each of the files.

Source Code:

#Corey Henry & Geoffrey Sanchez #Date Assigned: 05Nov14

# #

#Course CSE 1284 Sec 02 #Date Due: 12Nov2014

#File name: lab9.py

#

#Program description - develop a calculator to determine the average test

#and quiz grades.

#define the main function

def main():

print('Grade Calculator')

print('----------------')

again = 'y'

while again != 'n':

#get the name from the user and open the file

file\_name = input("Please enter the grade file you wish to calculate: ")

#add .txt to end of the file if the user forgets

if not file\_name.endswith(' .txt'):

file\_name += '.txt'

flag = True

while flag:

try:

original = open(file\_name)

except FileNotFoundError as error:

print('Invalid file name. ')

file\_name = input('please re-enter ')

if not file\_name.endswith(' .txt'):

file\_name += '.txt'

else:

flag = False

#set up the lists with no values for each of the types of grades.

quiz\_list = []

lab\_list = []

test\_list = []

final\_list = []

current = 0

#use a loop to determine which grades go into each list by using the name to seperate each list

for each\_line in original:

if each\_line.endswith("Quizzes and Assignments\n"):

current = 1

elif each\_line.endswith('Lab Assignments\n'):

current = 2

elif each\_line.endswith('Tests\n'):

current = 3

elif each\_line.endswith('Final Exam\n'):

current = 4

try:

number = int(each\_line.strip())

except ValueError as error:

continue

else:

if current == 1:

quiz\_list.append(number)

elif current == 2:

lab\_list.append(number)

elif current == 3:

test\_list.append(number)

elif current == 4:

final\_list.append(number)

#Computation to find out the average of each list and them up according to percents to get a final grade

average\_quizz\_list = sum(quiz\_list)/len(quiz\_list)

average\_lab\_list = sum(lab\_list)/len(lab\_list)

average\_test\_list = sum(test\_list)/len(test\_list)

final\_grade = 0.2 \* average\_quizz\_list + 0.15 \* average\_lab\_list + 0.45 \* average\_test\_list + 0.20 \* final\_list[0]

# print final grade with format to round up

print('Final Grade: %.0f' % final\_grade)

#prompt user if he would like to add another file

again = input('Would you like to enter another file name? (y/n) ')

print('-----------------------------------------------------')

main()

