#importing modules

import os

import csv

#joins path components so csv file can be read under one file

budget\_data = os.path.join("C:/Users/giffo/Desktop/GTATL201908DATA3/GTATL201908DATA3/02 - Homework/03-Python/Instructions/PyBank/Resources","budget\_data.csv")

#variables are given values or open valued

total\_months = 0

total\_pl = 0

value = 0

change = 0

dates = []

profits = []

#reading/opening file

with open(budget\_data, newline ='', encoding='utf-8') as csvfile:

csvreader = csv.reader(csvfile, delimiter=',')

#reading/setting the header to be skipped

header = next(csvreader)

#reading/setting the first row

first\_row = next(csvreader)

#counting total months / += added to allow for new outcome of 1 + original number of row

total\_months += 1

#counting total profits and loses / += added to allow for new outcome of 1 + original number of row

total\_pl += int(first\_row[1])

#value configured to be total profits

value = int(first\_row[1])

#going through each row of data after the header & first row

for row in csvreader:

#keeping track of the dates

dates.append(row[0])

#calculate the change, then add it to list of changes

change = int(row[1])-value

profits.append(change)

value = int(row[1])

#total number of months

total\_months += 1

#total net amount of "Profit/Losses over entire period"

total\_pl = total\_pl + int(row[1])

#greatest increase in profits

greatest\_increase = max(profits)

greatest\_index = profits.index(greatest\_increase)

greatest\_date = dates[greatest\_index]

#greatest decrease (lowest increase) in profits

greatest\_decrease = min(profits)

worst\_index = profits.index(greatest\_decrease)

worst\_date = dates[worst\_index]

#average change in "Profit/Losses between months over the entire time frame"

avg\_change = sum(profits)/len(profits)

#information to be displayed

print("Financial Analysis")

print("---------------------")

print(f"Total Months: {str(total\_months)}")

print(f"Total: ${str(total\_pl)}")

print(f"Average Change: ${str(round(avg\_change,2))}")

print(f"Greatest Increase in Profits: {greatest\_date} (${str(greatest\_increase)})")

print(f"Greatest Decrease in Profits: {worst\_date} (${str(greatest\_decrease)})")

#export to .txt file

output = open("output.txt", "w")

line1 = "Financial Analysis"

line2 = "---------------------"

line3 = str(f"Total Months: {str(total\_months)}")

line4 = str(f"Total: ${str(total\_pl)}")

line5 = str(f"Average Change: ${str(round(avg\_change,2))}")

line6 = str(f"Greatest Increase in Profits: {greatest\_date} (${str(greatest\_increase)})")

line7 = str(f"Greatest Decrease in Profits: {worst\_date} (${str(greatest\_decrease)})")

output.write('{}\n{}\n{}\n{}\n{}\n{}\n{}\n'.format(line1,line2,line3,line4,line5,line6,line7))

Financial Analysis

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Total Months: 86

Total: $38382578

Average Change: $-2315.12

Greatest Increase in Profits: Feb-2012 ($1926159)

Greatest Decrease in Profits: Sep-2013 ($-2196167)

[10]:

202