# Modules

import os

import csv

#Set up path for file

csvpath=os.path.join("..", "Resources", "budget\_data.csv" )

#print(csvpath)

total\_months=0

total\_profit=0

previous\_value=0

current\_value=0

list\_changes=[]

list\_dates=[]

print("Financial Analysis")

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

#Open the csv file

with open(csvpath, newline='') as csvfile:

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

#print(csvreader)

#Read the header row

csv\_header=next(csvreader)

#print(f"CSV Header: {csv\_header}")

#Read each row of data after the header

for row in csvreader:

#Determine total number of months

total\_months=total\_months+1

#current\_value=(row[0])

#Determine total profit over entire period

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

current\_value=int(row[1])

# Calculate the average of the changes in Profit/Lossess over the entire period, first calculate change

monthly\_diff=current\_value-previous\_value

#Store changes in list

list\_changes.append(monthly\_diff)

#Store dates in list

list\_dates.append(row[0])

previous\_value=current\_value

#avg\_monthly\_diff=sum[list\_changes]

del list\_changes[0]

del list\_dates[0]

#print(list\_changes)

#print(list\_dates)

# Calculate the average of the changes in Profit/Lossess over the entire period

average = sum(list\_changes) / len(list\_changes)

# Determine the greatest increase in profits (date and amount) over the entire period

maximum=list\_changes.index(max(list\_changes))

# Determine the greatest decrease in losses (datea and amount) ove the entire period

minimum=list\_changes.index(min(list\_changes))

print("Total Months: " + str(total\_months))

print("Total: $"+str(total\_profit))

print("Average Change: $" +str(round(average, 2)))

print("Greatest Increase in Profits: " + str(list\_dates[maximum]) +" "+str(list\_changes[maximum]))

print("Greatest Decrease in Profits: " + str(list\_dates[minimum]) +" "+ str(list\_changes[minimum]))

#print(list\_changes)

#print(row)