# Modules

import os

import csv

import locale

# "import" csv file and set file path

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

# read csv file

with open(bud\_data\_path, 'r', newline="") as bud\_data:

    csv\_reader = csv.reader(bud\_data, delimiter=",")

    csv\_header = next(csv\_reader)

    # this is a test to view the data

    # print(csv\_header)

    # csv\_firstrow = next(csv\_reader)

    # print(csv\_firstrow)

    # count rows and sum profits then subtract 1 from row as last row is null

    first\_row = next(csv\_reader)

    row\_count = 1

    profit\_total = int(first\_row[1])

    previous\_row = int(first\_row[1])

    total\_changes = 0

    change\_list = []

    for row in csv\_reader:

        row\_count +=  1

        profit\_total = profit\_total + int(row[1])

        change = int(row[1]) - previous\_row

        total\_changes = change + total\_changes

        previous\_row = int(row[1])

        change\_list.append(change)

    avg\_change = total\_changes/(row\_count-1)

    max\_change = max(change\_list)

    min\_change = min(change\_list)

    # max\_change\_date = csv\_reader[1]

    # min\_change\_date = csv\_reader[1]

    # for row in csv\_reader:

    #     if max\_change in row[1]

    #     max\_change\_date = row[0]

    # for row in csv\_reader:

    #     if min\_change in row[1]

    #     min\_change\_date = row[0]

    # print(row\_count)

    # print(profit\_total)

    # print(avg\_change)

    # print("Max change: ",max(change\_list))

    # print("Min change: ",min(change\_list))

    # print(max\_change\_date)

    # print(min\_change\_date)

    # print to terminal

    print("Financial Analysis")

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

    print(f"Total Months: {row\_count}")

    print("Total Profit/loss: $", format(profit\_total, ",.2f"))

    print(f"Average Change: {total\_changes/(row\_count -1)}")

    print(f"Greatest increase in profits: $({max(change\_list)})")

    print(f"Greatest decrease in profits: $({min(change\_list)})")

    # print out results in text

    title = ["Total Months", "Total Profit/Loss","Average Change". "Increase", "Greatest Decrease"]

    results = [{row\_count},{profit\_total},{total\_changes/(row\_count)-1},{max(change\_list)},{min(change\_list)}]