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Homework / **Python-challenge** / **PyBank.py**

🟪 **peiyunhuang** rename folder

c60150b   3 days ago

1 contributor

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70 lines (44 sloc)   1.71 KB

```python
1    import os
2    import csv
3
4    def average(numbers):
5        length = len(numbers)
6        total = 0.0
7        for number in numbers:
8            total += number
9        return total/length
10
11   PyBankcsv = os.path.join("Resources","budget_data.csv")
12
13   profit = []
14   monthly_changes = []
15   date = []
16
17
18   with open(PyBankcsv, newline="") as csvfile:
19       csvreader = csv.reader(csvfile, delimiter=",")
20       csv_header = next(csvreader)
21
22       for row in csvreader :
23           date.append(row[0])
24           profit.append(int(row[1]))
25
26   print()
27
28   Total_profit = sum(profit)
29
30   for i in range(len(profit)-1):
31       monthly_changes.append((profit[i+1]-profit[i]))
32
33   average_changes= average(monthly_changes)
```

```python
34    print(average_changes)
35
36    Max_profits_change=max(monthly_changes)
37    Min_profits_change=min(monthly_changes)
38
39    for i in range(len(monthly_changes)):
40        if monthly_changes[i] == Max_profits_change:
41            Date_of_Max = date[i+1]
42        if monthly_changes[i] == Min_profits_change:
43            Date_of_Min = date[i+1]
44
45    Total_months = len(date)
46
47    print ("Financial Analysis")
48    print ("Total Months:"+ str(Total_months))
49    print ("Total"+ str(Total_profit))
50    print ("Greatest Increase in Profits:"+ Date_of_Max + " ("  + str(Max_profits_change)+")")
51    print ("Greatest Decrease in Profits:"+ Date_of_Min + " (" + str(Min_profits_change)+")")
52
53
54    output_file = os.path.join ("Resources","budget_data_revised.csv")
55
56    with open (output_file, "w") as txtfile:
57        txtfile.write("Financial Analysis\n")
58        txtfile.write("Total Months:"+ str(Total_months)+"\n")
59        txtfile.write("Total"+ str(Total_profit)+"\n")
60        txtfile.write("Greatest Increase in Profits:"+ Date_of_Max + " ("  + str(Max_profits_ch
61        txtfile.write("Greatest Decrease in Profits:"+ Date_of_Min + " (" + str(Min_profits_cha
62
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```