Homework 5

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import csv

print("part 1: ")

i = 1

sum = 0

avg = 0

while i <= 25:

    sum += i

    i +=1

avg = sum / 25

print(f'The sum is: {sum}')

print(f'The average is: {avg}')

print("part 2:")

sum = 0

avg = 0

odd = 0

i=0

while i <= 25:

    if i % 2:

        odd += 1

        sum += i

    i += 1

if not odd:

    odd = 1

avg = sum / odd

print(f'The sum is: {sum} and the average is: {avg}')

print("part 3: ")

i = 1

sum = 0

avg = 0

for i in range(1,25):

    sum += i

avg = sum / 25

print(f'The sum is: {sum}')

print(f'The average is: {avg}')

print("part 4: ")

sum = 0

avg = 0

odd = 0

for i in range(1,25):

    if i % 2:

        odd+=1

        sum += i

avg = sum / odd

print(f'The sum is: {sum} and the average is: {avg}')

print("part 5: ")

inp = input()

total = 0

count = 0

avg = 0

item = []

try:

    while inp != "Done":

        total += int(inp)

        count += 1

        item.append(inp)

        inp = input()

except:

    print("Missing input!")

avg = total / count

print(f'The total is: {total}, the average is: {avg}')

print("The numbers were: ")

print(item)

print("part 6: ")

inp = input()

fruit = []

while inp != "Done":

    fruit.append(inp)

    inp = input()

for f in fruit:

    for i in f:

        print(i, end="     ")

print()

print("part 7a: ")

dic = {}

with open('hw5q7.txt') as csv\_file:

    csv\_reader = csv.reader(csv\_file, delimiter= ",")

    line\_count = 0

    for row in csv\_reader:

        if line\_count == 0:

            #print(f'Column names are {", ".join(row)}')

            line\_count += 1

        else:

            #print(row)

            rows = []

            row[0].replace("\\", " ")

            rows = row[0].split()

            #print(rows)

            total\_cost = int(rows[2]) \* int(rows[3])

            print(f'\t Customer number {rows[0]} purchased {rows[3]} {rows[1]} for  {rows[2]} each, giving a total cost of ${total\_cost} dollars.')

            try:

                if dic[rows[0]]:

                    dic[rows[0]] += total\_cost

            except:

                dic[rows[0]] = total\_cost

            line\_count += 1

    #print(f'Processed {line\_count} lines.')

for i in dic:

    print(f'\t Customer number {i} had a total bill of ${dic[i]}')

print("part 8: ")

difwrds = []

slblen = []

with open('Gettysburg.txt') as csv\_file2:

    csv\_reader2 = csv.reader(csv\_file2)

    file = csv\_file2.read()

    file.replace(".", " ")

    file.replace(",", " ")

    list\_file = file.split()

    print("part 8a: ")

    print(f'{list\_file.\_\_len\_\_()} are in the file')

    list\_file.sort()

    print(list\_file)

    print("part 8b: ")

    difwrds.append(list\_file[0])

    check = False

    for i in list\_file:

        check = False

        for j in difwrds:

            if i == j:

                check = True

                break

        if check == False:

            difwrds.append(i)

    print(difwrds)

    print("part 8c: ")

    slblen = sorted(list\_file, key=len)

    for i in slblen:

        print(f'{i} with length: {i.\_\_len\_\_()}')