Name:Shardul Kulkarni

Roll No: 331

Batch:C2

PRN: 202201060014

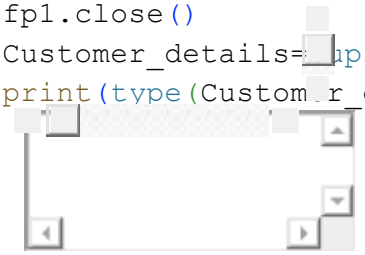
Assignment 2-EDS

1. Read the CSV file

```
Product_details=[]
Supplier_details=dict()
Customer_details=[]
gender={}
fp1=open("/content/Sales.csv","r")
data=fp1.readline()
while(True):

    data=fp1.readline()
    if not data:
        break;
    #print(data)
    data=data.replace("\n","")
    temp=data.split(",")
    Product_details.append(temp[1])
    Customer_details.append(temp[3])
    Supplier_details.update({temp[0]:temp[2]})
    gender.update({temp[3]:temp[4]})

fp1.close()
Customer_details=tuple(Customer_details)
print(type(Customer_details))
```



<class 'tuple'>

```
print("\nProduct_details\n",Product_details,end="")
print("\n\nCustomer_details\n",Customer_details,end="")
print("\n\nSupplier_details\n",Supplier_details,end="")
print("\n\nGender_details\n",gender,end="")
```

output:

Product_details

['Lenovo Laptop', 'Samsung M31', 'Realmi 10 ', 'HP Victus', 'Lenovo Laptop', 'Samsung M31', '"LG TV 32"""', 'HP Victus', 'Lenovo Laptop', 'Samsung M31', '"LG TV 32"""', 'Lenovo Laptop', 'Samsung M31', 'Realmi 10pro', 'Lenovo Laptop', 'HP Victus', '"LG TV 32"""', 'Lenovo Laptop', 'Samsung M31', '"LG TV 32"""]

Customer_details

('Aditya Kangule', 'Aniruddh Pande', 'Sanket Pande', 'Yash Katkhade', 'Yash Kannaver', 'Siddhi Bhosale', 'Sanket Kandalkar', 'Aditya Kangule', 'Yash Katkhade', 'Siddhi Bhosale', 'Sanket Pande', 'Aditya Kangule', 'Yash Katkhade', 'Siddhi Bhosale', 'Om Phatale', 'Aditya Kangule', 'Sanket Pande', 'Siddhi Bhosale', 'Aditya Kangule', 'Yash Katkhade')

Supplier_details

{'P00001': 'Ramesh Ele.', 'P00002': 'Vijay Sales', 'P00003': 'Ganesh Ele.', 'P00004': 'Surya Ele.', 'P00005': 'Ramesh Ele.', 'P00006': 'Ganesh Ele.', 'P00007': 'Vijay Sales', 'P00008': 'Surya Ele.', 'P00009': 'Ramesh Ele.', 'P00010': 'Ganesh Ele.', 'P00011': 'Surya Ele.', 'P00012': 'Ramesh Ele.', 'P00013': 'Surya Ele.', 'P00014': 'Ramesh Ele.', 'P00015': 'Ganesh Ele.', 'P00016': 'Vijay Sales', 'P00017': 'Deshmukh sales', 'P00018': 'Ramesh Ele.', 'P00019': 'Deshmukh sales', 'P00020': 'Ganesh Ele.'}

Gender_details

{'Aditya Kangule': 'Male', 'Aniruddh Pande': 'Male', 'Sanket Pande': 'Male', 'Yash Katkhade': 'Male', 'Yash Kannaver': 'Male', 'Siddhi Bhosale': 'Male', 'Sanket Kandalkar': 'Male', 'Om Phatale': 'Male'}

```
frequency = {}
# iterating over the list for
item in Product_details:
   # checking the element in dictionary
   if item in frequency:
      # incrementing the counter
      frequency[item] += 1
   else:
      # initializing the count
      frequency[item] = 1
# printing the frequency print(frequency)
marklist = sorted(frequency.items(), key=lambda
x:x[1],reverse=True)
sortdict = dict(marklist) print(sortdict)
print("The most popular product for
sales",list(sortdict.keys())[0]," sold
",list(sortdict.values())[0],"times")
```

---

1. Find the most popular product for sales

output:
{'Lenovo Laptop': 6, 'Samsung M31': 5, 'Realmi 10 ': 1, 'HP Victus': 3, '"LG TV 32"""': 4, 'Realmi 10pro': 1}
{'Lenovo Laptop': 6, 'Samsung M31': 5, '"LG TV 32"""': 4, 'HP Victus': 3, 'Realmi 10 ': 1, 'Realmi 10pro': 1} The most popular product for sales Lenovo Laptop sold 6 times

2. Find the best supplier for sales

```
frequency = {}
# iterating over the list
for item in Supplier_details.values(): #
   checking the element in dictionary if
   item in frequency:
      # incrementing the counter
      frequency[item] += 1
   else:
      # initializing the count
      frequency[item] = 1
# printing the frequency print(frequency)
marklist = sorted(frequency.items(), key=lambda
x:x[1],reverse=True)
sortdict = dict(marklist) print(sortdict)
print("The most popular Supplier for
sales",list(sortdict.keys())[0],
      " sold ",list(sortdict.values())[0],"Items")
```

Output:
{'Ramesh Ele.': 6, 'Vijay Sales': 3, 'Ganesh Ele.': 5, 'Surya Ele.': 4, 'Deshmukh sales': 2}
{'Ramesh Ele.': 6, 'Ganesh Ele.': 5, 'Surya Ele.': 4, 'Vijay Sales': 3, 'Deshmukh sales': 2} The most popular Supplier for sales Ramesh Ele. sold 6 Items

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3. Find the customer who buys most of the products

```
frequency = {}
# iterating over the list
for item in Customer_details:
   # checking the element in dictionary
   if item in frequency:
      # incrementing the counter
      frequency[item] += 1
   else:
      # initializing the count
      frequency[item] = 1
# printing the frequency
print("Freqenct is as below:\n",frequency)
marklist = sorted(frequency.items(), key=lambda
x:x[1],reverse=True)
sortdict = dict(marklist)
print("\nSorted dict is as below:\n",sortdict)
print("\n\nThe customer who buys most of the
products",list(sortdict.keys())[0],
```

Output:

```
      " buy ",list(sortdict.values())[0],"Items")
```

Freqenct is as below:
{'Aditya Kangule': 5, 'Aniruddh Pande': 1, 'Sanket Pande': 3, 'Yash Katkhade': 4, 'Yash Kannaver': 1, 'Siddhi Bhosale': 4, 'Sanket Kandalkar': 1, 'Om Phatale': 1}

Sorted dict is as below:
{'Aditya Kangule': 5, 'Yash Katkhade': 4, 'Siddhi Bhosale': 4, 'Sanket Pande': 3, 'Aniruddh Pande': 1, 'Yash Kannaver': 1, 'Sanket Kandalkar': 1, 'Om Phatale': 1}

The customer who buys most of the products Aditya Kangule buy 5 Items

---

4. Find the gender of customers

```
from collections import Counter
counter = dict(Counter(Customer_details))
names=list(counter.keys())
print(names)
male=0 female=0

for name in names:
    if gender[name]=="Male":
        male=male+1
    if gender[name]=="Female":
        female+=1
print("Total no of Male=",male)
print("Total no of Female=",female)
```

output:
['Aditya Kangule', 'Aniruddh Pande', 'Sanket Pande', 'Yash Katkhade', 'Yash Kannaver', 'Siddhi Bhosale', 'Sanket Kandalkar', 'Om Phatale']
Total no of Male= 7 Total
no of Female= 1
