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ASSIGNMENT 2

1.Read CSV into python data structure

```
Product_details=[]
Supplier_details=dict()
Customer_details=[]
gender={}

fp1=open("/content/sample_data/sales1.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))



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

2. Find the most popular product of the sale

```
frequency={} #{Lenovo Laptop:3}
# 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")
```

3. Find the best supplier for the 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 product for
sales",list(sortdict.keys())[0],"sold",list(sortdict.values())[0],"Items")
```

4. Find the customer who buys most of the product

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

5. Find the number of customers who are Female

```
# Identify Unique Customer

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)
```