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EDS Assignment 2:

Code:

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

fp1=open("/content/sample_data/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()
#print(type(Customer_details))
Customer_details=tuple(Customer_details)
print(type(Customer_details))


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="")
```

```
#3 find most popular product for sales

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 frequncy
print(frequency)
marklist = sorted(frequency.items(),key=lambda x:x[1],reverse=True)
sortdict = dict(marklist)
print(sortdict)
print("The most popular for
sales",list(sortdict.keys())[0],"sold",list(sortdict.values())[0],"time
s")

#or

from collections import Counter
counter = dict(Counter(list(Supplier_details.values())))
sorted_counter = sorted(counter.items(),key=lambda x:x[1],reverse=True)
sorted_counter=dict(sorted_counter)
print("The most popular Supplier for
sales",list(sorted_counter.keys())[0],"sold",list(sorted_counter.values
())[0],"Items")

#4 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("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],"It
ems")

#5 find the no. of customer 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=female+1
print("Total no of Male=",male)
print("Total no of Female=",female)
```

Output:

```
class 'tuple'>

Product_details
 ['Lenovo Laptop', 'Samsung M31', 'Realmi 10pro', 'Oppo F21', 'Lenovo Laptop', 'Samsung M31', '"LG TV
32"""', 'Oppo F21', 'Lenovo Laptop', 'Samsung M31', '"LG TV 32"""', 'Lenovo Laptop', 'Samsung M31',
'Realmi 10pro', 'Lenovo Laptop', 'Oppo F21', '"LG TV 32"""', 'Lenovo Laptop', 'Samsung M31', '"LG TV
32"""']

Customer_details
 ('Kaustubh Mahajan', 'Siddhi Kiwale', 'Sanket Kandalkar', 'Yash Mali', 'Yash Bagul', 'Siddhi Kiwale',
'Sanket Kandalkar', 'Kaustubh Mahajan', 'Yash Mali', 'Siddhi Kiwale', 'Sanket Kandalkar', 'Kaustubh
Mahajan', 'Yash Mali', 'Siddhi Kiwale', 'Tanuja Mali', 'Kaustubh Mahajan', 'Sanket Kandalkar', 'Siddhi
Kiwale', 'Kaustubh Mahajan', 'Yash Mali')

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

Gender_details
 {'Kaustubh Mahajan': 'Male', 'Siddhi Kiwale': 'Female', 'Sanket Kandalkar': 'Male', 'Yash Mali': 'Male', 'Yash
Bagul': 'Male', 'Tanuja Mali': 'Female'}{'Lenovo Laptop': 6, 'Samsung M31': 5, 'Realmi 10pro': 2, 'Oppo
F21': 3, '"LG TV 32"""': 4}
{'Lenovo Laptop': 6, 'Samsung M31': 5, '"LG TV 32"""': 4, 'Oppo F21': 3, 'Realmi 10pro': 2}
The most popular for sales Lenovo Laptop sold 6 times
The most popular Supplier for sales Raka Ele. sold 6 Items
Frequency is as below:
```

```
 {'Kaustubh Mahajan': 5, 'Siddhi Kiwale': 5, 'Sanket Kandalkar': 4, 'Yash Mali': 4, 'Yash Bagul': 1, 'Tanuja Mali': 1}

Sorted dict is as below:
 {'Kaustubh Mahajan': 5, 'Siddhi Kiwale': 5, 'Sanket Kandalkar': 4, 'Yash Mali': 4, 'Yash Bagul': 1, 'Tanuja Mali': 1}


The customer who buys most of the products Kaustubh Mahajan buy 5 Items
['Kaustubh Mahajan', 'Siddhi Kiwale', 'Sanket Kandalkar', 'Yash Mali', 'Yash Bagul', 'Tanuja Mali']
Total no of Male= 4
Total no of Female= 2
```