Assignment No : 2

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Que:- **Prepare/Take datasets for any real-life application. For Ex. Sales of the company. Read the data from Sales.csv/.xls/.txt. Store Product details in the List data structure. Store Supplier Details in Dictionary Data Structure. Store Customer Details in Tuple Data Structure. Now perform the following operations:**

1. **Find the most popular product for sale.**
2. **Find the best supplier for sales.**
3. **Find the customer who buys most of the products.**
4. **Find the number of customers who are 'Female'**

Solution :

```
import csv
f1=open("/content/sample_data/Sales.csv","r")
productid=[]
product_details=[]
Supplier_details={}
customer_details=[]
gender={}

d1=list(csv.reader(f1,delimiter=','))
#print(d1)
for i in range (len(d1)):
  productid.append(d1[i][0])
  product_details.append(d1[i][1])
  Supplier_details.update({d1[i][0]:d1[i][2]})
  customer_details.append({d1[i][3]})
  gender.update({d1[i][3]:d1[i][4]})
print(productid)
print(customer_details)
print(Supplier_details)
print(gender)

frequency ={}
#product_details
for item in product_details:
```

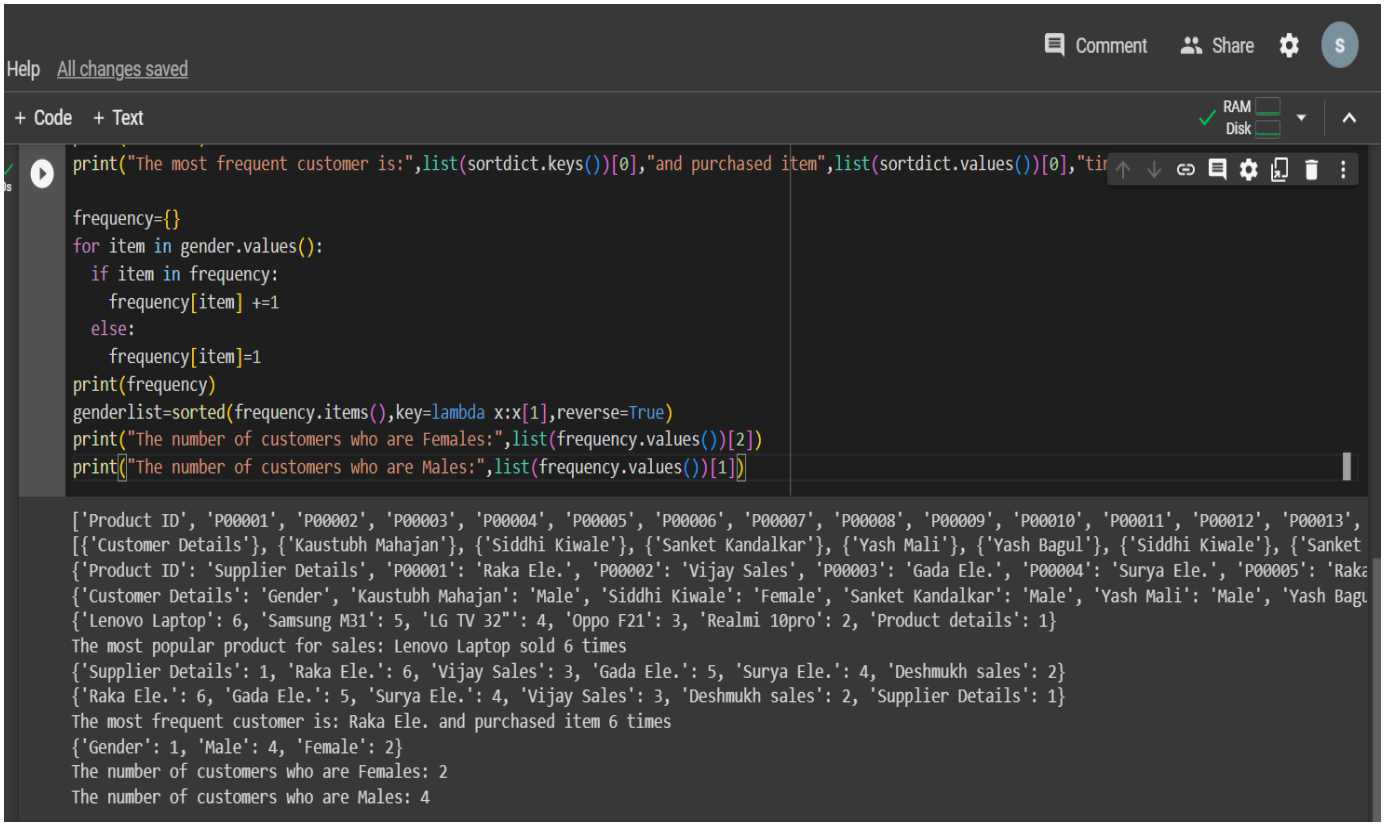
```
  if item in frequency:
    frequency[item]=frequency[item]+1
  else:
    frequency[item]=1
frequency
marklist=sorted(frequency.items(),key=lambda x:x[1],reverse=True)

sortdict=dict(marklist)
print(sortdict)
print("The most popular product for
sales:",list(sortdict.keys())[0],"sold",list(sortdict.values())[0],"tim
es")

frequency={}
for item in Supplier_details.values():
  if item in frequency:
    frequency[item] +=1
  else:
    frequency[item]=1
print(frequency)
namelist=sorted(frequency.items(),key=lambda x:x[1],reverse=True)
sortdict=dict(namelist)
print(sortdict)
print("The most frequent customer is:",list(sortdict.keys())[0],"and
purchased item",list(sortdict.values())[0],"times")

frequency={}
for item in gender.values():
  if item in frequency:
    frequency[item] +=1
  else:
    frequency[item]=1
print(frequency)
genderlist=sorted(frequency.items(),key=lambda x:x[1],reverse=True)
print("The number of customers who are
Females:",list(frequency.values())[2])
print("The number of customers who are
Males:",list(frequency.values())[1])
```

Output :


Help All changes saved
Comment
Share
+ Code + Text
RAM
Disk
print("The most frequent customer is:",list(sortdict.keys())[0],"and purchased item",list(sortdict.values())[0],"tir
frequency={}
for item in gender.values():
if item in frequency:
frequency[item] +=1
else:
frequency[item]=1
print(frequency)
genderlist=sorted(frequency.items(),key=lambda x:x[1],reverse=True)
print("The number of customers who are Females:",list(frequency.values())[2])
print("The number of customers who are Males:",list(frequency.values())[1])
['Product ID', 'P00001', 'P00002', 'P00003', 'P00004', 'P00005', 'P00006', 'P00007', 'P00008', 'P00009', 'P00010', 'P00011', 'P00012', 'P00013',
[{'Customer Details'}, {'Kaustubh Mahajan'}, {'Siddhi Kiwale'}, {'Sanket Kandalkar'}, {'Yash Mali'}, {'Yash Bagul'}, {'Siddhi Kiwale'}, {'Sanket
{'Product ID': 'Supplier Details', 'P00001': 'Raka Ele.', 'P00002': 'Vijay Sales', 'P00003': 'Gada Ele.', 'P00004': 'Surya Ele.', 'P00005': 'Raka
{'Customer Details': 'Gender', 'Kaustubh Mahajan': 'Male', 'Siddhi Kiwale': 'Female', 'Sanket Kandalkar': 'Male', 'Yash Mali': 'Male', 'Yash Bagu
{'Lenovo Laptop': 6, 'Samsung M31': 5, 'LG TV 32"': 4, 'Oppo F21': 3, 'Realmi 10pro': 2, 'Product details': 1}
The most popular product for sales: Lenovo Laptop sold 6 times
{'Supplier Details': 1, 'Raka Ele.': 6, 'Vijay Sales': 3, 'Gada Ele.': 5, 'Surya Ele.': 4, 'Deshmukh sales': 2}
{'Raka Ele.': 6, 'Gada Ele.': 5, 'Surya Ele.': 4, 'Vijay Sales': 3, 'Deshmukh sales': 2, 'Supplier Details': 1}
The most frequent customer is: Raka Ele. and purchased item 6 times
{'Gender': 1, 'Male': 4, 'Female': 2}
The number of customers who are Females: 2
The number of customers who are Males: 4