Practical 2

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Batch : **H2**

Statement :

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'**

CSV File :

sales.csv

1 to 10 of 20 entries Filter

Product ID	Product details	Supplier Details	Customer Details	Gender
P00001	Lenovo Laptop	Raka Ele.	Kaustubh Mahajan	Male
P00002	Samsung M31	Vijay Sales	Siddhi Kiwale	Female
P00003	Realmi 10pro	Gada Ele.	Sanket Kandalkar	Male
P00004	Oppo F21	Surya Ele.	Yash Mali	Male
P00005	Lenovo Laptop	Raka Ele.	Yash Bagul	Male
P00006	Samsung M31	Gada Ele.	Siddhi Kiwale	Female
P00007	LG TV 32"	Vijay Sales	Sanket Kandalkar	Male
P00008	Oppo F21	Surya Ele.	Kaustubh Mahajan	Male
P00009	Lenovo Laptop	Raka Ele.	Yash Mali	Male
P00010	Samsung M31	Gada Ele.	Siddhi Kiwale	Female

Show 10 per page 1 2

Code :

```
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))

print("\nProduct Details\n",product_details,end="")
print("\nCustomer Details\n",customer_details,end="")
print("\nSupplier Details\n",supplier_details,end="")
print("\nGender Details\n",gender,end="")


frequency={}
#iterating over  the  list
for item in product_details:
  #checking the element in dictionary
  if item in frequency:
    #increment the counter
    frequency[item]  +=  1
    #
  else:
    frequency[item]=1


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],"time
s")
```

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\n', 'Siddhi Kiwale': 'Female\n', 'Sanket
Kandalkar': 'Male\n', 'Yash Mali': 'Male\n', 'Yash Bagul': 'Male\n',
'Tanuja Mali': 'Female\n'}{'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 product for sales Lenovo Laptop sold 6 times
```

Code :

```
frequency={}

for item in supplier_details.values():
  if item in frequency:
    frequency[item] += 1
  else:
    frequency[item] = 1
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],"time
s")
```

Output :

```
{'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}

The most popular supplier for sales Raka Ele. sold 6 times
```

Code :

```
frequency={}

for item in product_details:
  if item in frequency:
    frequency[item] += 1
  else:
    frequency[item] = 1
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],"time
s")
```

Output:

```
{'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 product for sales Lenovo Laptop sold 6 times
```

Code:

```
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":
```

```
print("Total no. of Males",male)
print("Total no. of Females",female)
```

Output:

```
['Kaustubh Mahajan', 'Siddhi Kiwale', 'Sanket Kandalkar', 'Yash Mali',
'Yash Bagul', 'Tanuja Mali']
Total no. of Males 0
Total no. of Females 0
```

```
if gender[name]=="Female":
  male=male+1
      female+=1
```