

Practical 2

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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 X | | | | |
|------------------------------|-----------------|------------------|------------------|--------|
| 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 |

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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],"times")

```

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],"times")
```

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],"times")
```

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
```