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## **Practical 2**

**Statement - Prepare/Take datasets for any real-life application. ForEx. 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'**

**Code –**

```
f=open("sales.csv","r")
data=f.read()
lines=data.splitlines()

p_details=[]
c_details={}
s_details={}
g_details={}
ctemp=[]
pfc={}
cfc={}
male=0
female=0
freq={}

for l in lines:
    words=l.split(",")
    p_details.append(words[1])
    ctemp.append(words[3])
    s_details[words[0]]=words[2]
    g_details[words[3]]=words[4]

#1) Find the most popular product for sale
for p in p_details:
    if p not in pfc:
        pfc[p]=1
    else:
        pfc[p]=pfc[p]+1

max=0
pn=""
for k,v in pfc.items():
```

```
if(max<v):
    max=v
    pn=k
```

```
print("The most popular product for sale -",pn)
```

#2) Find the customer who buys most of the products

```
for c in ctemp:
    if c not in cfc:
        cfc[c]=1
    else:
        cfc[c]=cfc[c]+1
```

```
max=0
```

```
cd=""
```

```
for a,b in cfc.items():
```

```
    if(max<b):
```

```
        max=b
```

```
        cd=a
```

```
print("The customer who buys most of the products -",cd)
```

#3) Find the number of customers who are 'Female'

```
for k,v in g_details.items():
```

```
    if(v=="Female"):
```

```
        female=female+1
```

```
    else:
```

```
        male=male+1
```

```
print("The number of customers who are 'Female' -",female)
```

#4) Find the best supplier for sales.

```
for s in s_details.values():
```

```
    if s in freq:
```

```
        freq[s]=freq[s]+1
```

```
    else:
```

```
        freq[s]=1
```

```
max=0
```

```
rf=""
```

```
for k,v in freq.items():
```

```
    if(max<v):
```

```
        max=v
```

```
        rf=k
```

```
print("The best supplier for sales -",rf)
```

## Output -

```
IDLE Shell 3.11.3
File Edit Shell Debug Options Window Help
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:\Users\ASUS\OneDrive\Desktop\eds practical 2\practical 2.py ====
The most popular product for sale - Lenovo Laptop
The customer who buys most of the products - Kaustubh Mahajan
The number of customers who are 'Female'- 2
The best supplier for sales - Raka Ele.
>>>
```



## Output –

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
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==== RESTART: C:\Users\ASUS\OneDrive\Desktop\eds practical 2\practical 2.py ====
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```