

```
In [1]: fp=open("Sales.csv")
        fp.readlines()
```

```
Out[1]: ['Product ID,Product details,Supplier Details,Customer Details,Gender\n',
        'P00001,Lenovo Laptop,Raka Ele.,Kaustubh Mahajan,Male\n',
        'P00002,Samsung M31,Vijay Sales,Siddhi Kiwale,Female\n',
        'P00003,Realmi 10pro,Gada Ele.,Sanket Kandalkar,Male\n',
        'P00004,Oppo F21,Surya Ele.,Yash Mali,Male\n',
        'P00005,Lenovo Laptop,Raka Ele.,Yash Bagul,Male\n',
        'P00006,Samsung M31,Gada Ele.,Siddhi Kiwale,Female\n',
        'P00007,"LG TV 32"',Vijay Sales,Sanket Kandalkar,Male\n',
        'P00008,Oppo F21,Surya Ele.,Kaustubh Mahajan,Male\n',
        'P00009,Lenovo Laptop,Raka Ele.,Yash Mali,Male\n',
        'P00010,Samsung M31,Gada Ele.,Siddhi Kiwale,Female\n',
        'P00011,"LG TV 32"',Surya Ele.,Sanket Kandalkar,Male\n',
        'P00012,Lenovo Laptop,Raka Ele.,Kaustubh Mahajan,Male\n',
        'P00013,Samsung M31,Surya Ele.,Yash Mali,Male\n',
        'P00014,Realmi 10pro,Raka Ele.,Siddhi Kiwale,Female\n',
        'P00015,Lenovo Laptop,Gada Ele.,Tanuja Mali,Female\n',
        'P00016,Oppo F21,Vijay Sales,Kaustubh Mahajan,Male\n',
        'P00017,"LG TV 32"',Deshmukh sales,Sanket Kandalkar,Male\n',
        'P00018,Lenovo Laptop,Raka Ele.,Siddhi Kiwale,Female\n',
        'P00019,Samsung M31,Deshmukh sales,Kaustubh Mahajan,Male\n',
        'P00020,"LG TV 32"',Gada Ele.,Yash Mali,Male\n']
```

```
In [2]: Product_details=[]
        Supplier_details=dict()
        Customer_details=[]
        gender={}

        fp1=open("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))
```

```
<class 'tuple'>
```

```
In [3]: 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="")
```

Product_details

```
['Lenovo Laptop', 'Samsung M31', 'Realmi 10pro', 'Oppo F21', 'Lenovo Laptop', 'Samsung M31', 'LG TV 32', 'Oppo F21', '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'}
```

```
In [14]: 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],"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

```
In [15]: # 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+=1
print("Total no of Male=",male)
print("Total no of Female=",female)
```

```
['Kaustubh Mahajan', 'Siddhi Kiwale', 'Sanket Kandalkar', 'Yash Mali', 'Yash Bagul', 'Tanuja Mali']
Total no of Male= 4
Total no of Female= 2
```

In []:

