PRACTICAL NO 2 :

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READ CSV INTO PYTHON DATA STRUCTURE

(INPUT)

```
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;
  temp=data.split(",")
  product_details.append(temp[1])
  supplier_details.update({temp[0]:temp[2]})
  Customer_details.append(temp[3])
  gender.update({temp[3]:temp[4]})

fp1.close()

Customer_details=tuple(Customer_details)
print("\n",product_details)
print("\n",supplier_details)
print("\n",Customer_details)
print("\n",gender)
```

(OUTPUT)

```
['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"""']

{'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.'}

('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')

{'Kaustubh Mahajan': 'Male\n', 'Siddhi Kiwale': 'Female\n', 'Sanket Kandalkar': 'Male\n', 'Yash Mali': 'Male', 'Yash Bagul': 'Male\n',
'Tanuja Mali': 'Female\n'}
```

1. FIND THE MOST POPULAR PRODUCT FOR SALES.

INPUT

```
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)
most_popular_product = list(sortdict.keys())[0]
most_popular_product_sales = list(sortdict.values())[0]

print("The most popular product for sales:", most_popular_product, "sold", most_popular_product_sales, "times")
```

OUTPUT

```
{'Lenovo Laptop': 6, 'Samsung M31': 5, 'Realmi 10pro': 2, 'Oppo F21': 3, '"LG TV 32"""': 4}
The most popular product for sales: Lenovo Laptop sold 6 times
```

3] FIND THE BEST SUPPLIER FOR SALES

INPUT

```
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)
sortdist = dict(marklist)
print(sortdict)
most_popular_product = list(sortdict.keys())[0]
most_popular_product_sales = list(sortdict.values())[0]

print("The most popular product for sales:", most_popular_product, "sold", most_popular_product_sales, "items")
```

OUTPUT

```
{'product1': 3, 'product2': 2, 'product3': 1}
{'product1': 3, 'product2': 2, 'product3': 1}
The most popular product for sales: product1 sold 3 items
```

4] FIND THE CUSTOMER WHO BUYS MOST OF THE PRODUCTS

INPUT

```
frequency={}
# iterating over the list
for item in Customer_details:
  #checking the element in dictionary
  if item in f
    #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("\nSorteddict 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")
```

Loading...

OUTPUT

```
Frequency is as below:
 {'Kaustubh Mahajan': 5, 'Siddhi Kiwale': 5, 'Sanket Kandalkar': 4, 'Yash Mali': 4, 'Yash Bagul': 1, 'Tanuja Mali': 1}

Sorteddict 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
```

5] FIND THE NUMBER OF CUSTOMER WHO ARE 'FEMALE'

INPUT

```
# 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)
```

OUTPUT

```
['Kaustubh Mahajan', 'Siddhi Kiwale', 'Sanket Kandalkar', 'Yash Mali', 'Yash Bagul', 'Tanuja Mali']
Total no of Male= 1
Total no of Female= 0
```

LINK OF THE GOOGLE COLAB :

HTTPS://COLAB.RESEARCH.GOOGLE.COM/DRIVE/1CHJQJ94HCKXRD25JFUZ66CFCPBBLOF3R#SCROLLTO=L4BEOEBZCBIO