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367 c4 batch

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<u>TITLE</u> –

EDS Practical Assignment no. 2

<u>AIM-</u>

To 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'

DATA SHEET

Product ID	Product details	Supplier Details	Customer Details	Gender
A01	TOYOTA COROLLA	BAZER SALES	LEONARDO DICAPRICO	MALE
A02	BUGATTI	BURLINGTON SALES	JOHNY DEPP	MALE
A03	MERCEDES BENZ	HUMANA SALES	EMMA WATSON	FEMALE
A04	FERRARI	GOLDEN WEST SALES	WILL SMITH	MALE
A05	CHEVROLET	CALPINE SALES	SELENA GOMEZ	FEMALE
A06	HONDA CIVIC	KIMBALL SALES	ANNE HATHWAY	FEMALE
A07	FORD	BAZER SALES	DUSTIN HOFFMAN	MALE
A08	BUGATTI	MORSE SALES	EMMA WATSON	FEMALE
A09	MERCEDES BENZ	CALPINE SALES	WILL SMITH	MALE
A10	MC LAREN	CUMMINS SALES	JOHNY DEPP	MALE
A11	HONDA ACCORD	KIMBALL SALES	VIN DIESEL	MALE
A12	CHEVROLET	MANOR CURE SALES	TOM CRUISE	MALE
A13	CHEVROLET	GOLDEN WEST SALES	EMMA STONE	FEMALE
A14	HONDA ACCORD	BAZER SALES	WILL SMITH	MALE
A15	MERCEDES BENZ	HUMANA SALES	JENNIFER LOPEZ	FEMALE
A16	RANGE ROVER	CALPINE SALES	TOM CRUISE	MALE
A17	CHEVROLET	HUMANA SALES	KRISTEN STEWART	FEMALE
A18	MERCEDES BENZ	KIMBALL SALES	SELENA GOMEZ	FEMALE
A19	RANGE ROVER	MANOR CURE SALES	BRAD PITT	MALE
A20	PORSCHE	CALPINE SALES	EMMA WATSON	FEMALE

INPUT

```python
Product_details=[]
Supplier_details=dict()
Customer_details=[]
gender={}

fp1=open("/content/367 SALES.csv","r")
data=fp1.readline()

while(True):
  data=fp1.readline()
  if not data:
     break;




  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()
```

```python
Customer_details=tuple(Customer_details)
print(type(Customer_details))

print("\nProduct_details\n",Product_details,end="")
print("\n\nCustomer_deatils\n",Customer_details,end="")
print("\n\nSupplier_details\n",Supplier_details,end="")
print("\n\nGender_details\n",gender,end="")
```

OUTPUT

Product_details
 ['TOYOTA COROLLA', 'BUGATTI', 'MERCEDES BENZ',
'FERRARI', 'CHEVROLET', 'HONDA CIVIC', 'FORD',
'BUGATTI', 'MERCEDES BENZ', 'MC LAREN', 'HONDA
ACCORD', 'CHEVROLET', 'CHEVROLET', 'HONDA ACCORD',
'MERCEDES BENZ', 'RANGE ROVER', 'CHEVROLET',
'MERCEDES BENZ', 'RANGE ROVER', 'PORSCHE']

Customer_deatils
 ('LEONARDO DICAPRICO', 'JOHNY DEPP', 'EMMA WATSON',
'WILL SMITH', 'SELENA GOMEZ', 'ANNE HATHWAY', 'DUSTIN
HOFFMAN', 'EMMA WATSON', 'WILL SMITH', 'JOHNY DEPP',
'VIN DIESEL', 'TOM CRUISE', 'EMMA STONE', 'WILL
SMITH', 'JENNIFER LOPEZ', 'TOM CRUISE', 'KRISTEN
STEWART', 'SELENA GOMEZ', 'BRAD PITT', 'EMMA WATSON')

Supplier_details
 {'A01': ' BAZER SALES', 'A02': 'BURLINGTON SALES',
'A03': ' HUMANA SALES', 'A04': 'GOLDEN WEST SALES',
'A05': 'CALPINE SALES', 'A06': 'KIMBALL SALES',
'A07': ' BAZER SALES', 'A08': ' MORSE SALES', 'A09':
'CALPINE SALES', 'A10': 'CUMMINS SALES', 'A11':
'KIMBALL SALES', 'A12': 'MANOR CURE SALES', 'A13':
'GOLDEN WEST SALES', 'A14': ' BAZER SALES', 'A15': '
HUMANA SALES', 'A16': 'CALPINE SALES', 'A17': '
HUMANA SALES', 'A18': 'KIMBALL SALES', 'A19': 'MANOR
CURE SALES', 'A20': 'CALPINE SALES'}

1. Find the most popular product for sale.

INPUT

```python
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

{'TOYOTA COROLLA': 1, 'BUGATTI': 2, 'MERCEDES BENZ': 4, 'FERRARI': 1, 'CHEVROLET': 4, 'HONDA CIVIC': 1, 'FORD': 1, 'MC LAREN': 1, 'HONDA ACCORD': 2, 'RANGE ROVER': 2, 'PORSCHE': 1}

{'MERCEDES BENZ': 4, 'CHEVROLET': 4, 'BUGATTI': 2, 'HONDA ACCORD': 2, 'RANGE ROVER': 2, 'TOYOTA COROLLA': 1, 'FERRARI': 1, 'HONDA CIVIC': 1, 'FORD': 1, 'MC LAREN': 1, 'PORSCHE': 1}

The most popular product for sales MERCEDES BENZ sold 4 times

2. Find the best supplier for sales.

INPUT

```python
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 is",list(sortdict.keys())[0],"sold",list(sortdict.values())[0],"Items")
```

OUTPUT

```
{' BAZER SALES': 3, 'BURLINGTON SALES': 1, '
HUMANA SALES': 3, 'GOLDEN WEST SALES': 2,
'CALPINE SALES': 4, 'KIMBALL SALES': 3, '
MORSE SALES': 1, 'CUMMINS SALES': 1, 'MANOR
CURE SALES': 2}

{'CALPINE SALES': 4, ' BAZER SALES': 3, '
HUMANA SALES': 3, 'KIMBALL SALES': 3, 'GOLDEN
WEST SALES': 2, 'MANOR CURE SALES': 2,
'BURLINGTON SALES': 1, ' MORSE SALES': 1,
'CUMMINS SALES': 1}

The most popular SUPPLIER is
CALPINE SALES sold 4 Items
```

3. Find the customer who buys most of the products.

INPUT

```python
frequency={}
for item in Customer_details:
    if item in frequency:
        frequency[item] +=1

    else:
        frequency[item]=1

print("Frequency is:\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")
```

OUTPUT

```
Frequency is:
 {'LEONARDO DICAPRICO': 1, 'JOHNY DEPP': 2, 'EMMA WATSON': 3,
'WILL SMITH': 3, 'SELENA GOMEZ': 2, 'ANNE HATHWAY': 1, 'DUSTIN
HOFFMAN': 1, 'VIN DIESEL': 1, 'TOM CRUISE': 2, 'EMMA STONE':
1, 'JENNIFER LOPEZ': 1, 'KRISTEN STEWART': 1, 'BRAD PITT': 1}

Sorteddict is as below:
 {'EMMA WATSON': 3, 'WILL SMITH': 3, 'JOHNY DEPP': 2, 'SELENA
GOMEZ': 2, 'TOM CRUISE': 2, 'LEONARDO DICAPRICO': 1, 'ANNE
HATHWAY': 1, 'DUSTIN HOFFMAN': 1, 'VIN DIESEL': 1, 'EMMA
STONE': 1, 'JENNIFER LOPEZ': 1, 'KRISTEN STEWART': 1, 'BRAD
PITT': 1}


The customer who buys most of the products
EMMA WATSON buy 3 Items
```

4. Find the number of customers who are 'Female'

INPUT

```python
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

['LEONARDO DICAPRICO', 'JOHNY DEPP', 'EMMA WATSON', 'WILL SMITH', 'SELENA GOMEZ', 'ANNE HATHWAY', 'DUSTIN HOFFMAN', 'VIN DIESEL', 'TOM CRUISE', 'EMMA STONE', 'JENNIFER LOPEZ', 'KRISTEN STEWART', 'BRAD PITT']

Total no of Male= 7
Total no of Female= 6