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C2 Batch

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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'**

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

    fp1=open("/content/Sales (2).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))
```

OUTUPUT: `<class 'tuple'`

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

OUTPUT:

```
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'}
```

```
frequency = {}#{Lenovo Laptop:3}
# iterating over the list
for item  in Product_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)
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
```

```
frequency = {}
# iterating over the list
for item  in Supplier_details.values():
   # 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)
marklist = sorted(frequency.items(), key=lambda x:x[1],reverse=True)
sortdict = dict(marklist)
print(sortdict)
print("The most popular Supplie for sales",list(sortdict.keys())[0],
      " sold ",list(sortdict.values())[0],"Items")
```

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 Supplie for sales Raka Ele.  sold  6 Items
```

```
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)
marklist = sorted(frequency.items(), key=lambda x:x[1],reverse=True)
sortdict = dict(marklist)
print("\nSorted dict is as below:\n" ,sortdict)
print("The customer who buys most of the products
",list(sortdict.keys())[0],
      " sold ",list(sortdict.values())[0],"Items")
```

OUTPUT:

```
{'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  sold  5
Items
```

```
frequency = {}#{vijay sales:3}
# iterating over the list
for item  in gender.values():
   #  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)
marklist = sorted(frequency.items(), key=lambda x:x[1],reverse=True)
sortdict = dict(marklist)
print(sortdict)
print("no. of customer who are female ",list(sortdict.keys())[0],
      " sold ",list(sortdict.values())[0],"times")
```

OUTPUT:

```
{'Male\n': 4, 'Female\n': 2}
{'Male\n': 4, 'Female\n': 2}
no. of customer who are female  Male
  sold  4 times
```

EXCEL SHEET:

	A	B	C	D	E
1	Product ID	Product details	Supplier Details	Customer Details	Gender
2	P00001	Lenovo Laptop	Raka Ele.	Kaustubh Mahajar	Male
3	P00002	Samsung M31	Vijay Sales	Siddhi Kiwale	Female
4	P00003	Realmi 10pro	Gada Ele.	Sanket Kandalkar	Male
5	P00004	Oppo F21	Surya Ele.	Yash Mali	Male
6	P00005	Lenovo Laptop	Raka Ele.	Yash Bagul	Male
7	P00006	Samsung M31	Gada Ele.	Siddhi Kiwale	Female
8	P00007	LG TV 32"	Vijay Sales	Sanket Kandalkar	Male
9	P00008	Oppo F21	Surya Ele.	Kaustubh Mahajar	Male
10	P00009	Lenovo Laptop	Raka Ele.	Yash Mali	Male
11	P00010	Samsung M31	Gada Ele.	Siddhi Kiwale	Female
12	P00011	LG TV 32"	Surya Ele.	Sanket Kandalkar	Male
13	P00012	Lenovo Laptop	Raka Ele.	Kaustubh Mahajar	Male
14	P00013	Samsung M31	Surya Ele.	Yash Mali	Male
15	P00014	Realmi 10pro	Raka Ele.	Siddhi Kiwale	Female
16	P00015	Lenovo Laptop	Gada Ele.	Tanuja Mali	Female
17	P00016	Oppo F21	Vijay Sales	Kaustubh Mahajar	Male
18	P00017	LG TV 32"	Deshmukh sales	Sanket Kandalkar	Male
19	P00018	Lenovo Laptop	Raka Ele.	Siddhi Kiwale	Female
20	P00019	Samsung M31	Deshmukh sales	Kaustubh Mahajar	Male
21	P00020	LG TV 32"	Gada Ele.	Yash Mali	Male