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assignment2

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[ ]:
```
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]})
```

P00001,Lenovo laptop,Raka Ele.,Kaustoobh Mahajan,male

P00002,Samsung Laptop,Vijay Sales,Siddhi kivale,female

P00003,Realmi 10pro,Gada Ele.,Sanket Kandalkar,male

P00004,Oppo f21,Surya Ele.,Yash mali,male

P00005,Lenovo laptop,Raka Ele.,Yash Bagul,male

P00006,Samsung M31,Gada Ele.,Siddhi kivale,female

P00007,LG TV 32*,Vijay Sales,Sanket Kandalkar,male

P00008,Oppo f21,Surya Ele.,Kaustoobh Mahajan,male P00009,Lenovo

laptop,Raka Ele.,Yash mali,male

P00010,Samsung M31,Gada Ele.,Siddhi kivale,female P00011,LG TV 32*,Surya Ele.,Sanket Kandalkar,male

P00012,Lenovo laptop,Raka Ele.,Kaustoobh Mahajan,male

P00013,Samsung M31,Surya Ele.,Yash mali,male

P00014,Realmi 10pro,Raka Ele.,Siddhi kivale,female P00015,Lenovo

laptop,Gada Ele.,Tanuja Mali,female

P00016,Oppo f21,Vijay Sales,Kaustoobh Mahajan,male

P00017,LG TV 32*,Deshmukh Sales,Sanket Kandalkar,male

P00018,Lenovo laptop,Raka Ele.,Siddhi kivale,female

P00019,Samsung M21,Deshmukh Sales,Kaustoobh Mahajan,male

P00020,LG TV 32*,Gada Ele.,Yash mali,male

[ ]:
```
fp1.close()
```

[ ]:
```
customer_details= tuple(customer_details)
print(type(customer_details))
print("\nproduct_details\n",product_details,end='')
print("\ncustomer_details\n",customer_details,end='')
print("\nsupplier_details\n",supplier_details,end='')
print("\ngender\n",gender,end='')
```

<class 'tuple'> product_details

['Lenovo laptop', 'Samsung Laptop', '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 M21', 'LG TV 32*'] customer_details

('Kaustoobh Mahajan', 'Siddhi kivale', 'Sanket Kandalkar', 'Yash mali', 'Yash Bagul', 'Siddhi kivale', 'Sanket Kandalkar', 'Kaustoobh Mahajan', 'Yash mali', 'Siddhi kivale', 'Sanket Kandalkar', 'Kaustoobh Mahajan', 'Yash mali', 'Siddhi kivale', 'Tanuja Mali', 'Kaustoobh Mahajan', 'Sanket Kandalkar', 'Siddhi kivale', 'Kaustoobh 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
{'Kaustoobh Mahajan': 'male', 'Siddhi kivale': 'female', 'Sanket Kandalkar': 'male',
'Yash mali': 'male', 'Yash Bagul': 'male', 'Tanuja Mali': 'female'}

[ ]:
```
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')
```

{'Lenovo laptop': 6, 'Samsung Laptop': 1, 'Realmi 10pro': 2, 'Oppo f21': 3,
'Samsung{'Lenovo laptop':M31': 3 6, ,'LG 'LG TV TV 32*': 32*': 4 ,4 ,'Samsung 'Oppo f21':
M21': 3, 1}'Samsung M31': 3, 'Realmi
10pro': 2, 'Samsung Laptop': 1, 'Samsung M21': 1}
The most popular product for sales Lenovo laptop sold 6 times

[ ]:
```
from collections import Counter counter =
dict(Counter(list(supplier_details.values()))) sorted_counter =
sorted(counter.items(), key= lambda x:x[1],reverse=True)

 sorted_counterprint('The most = dictpopular(sorted_counter product ) for
sales',list(sorted_counter.keys())[0],
 'sold',list(sorted_counter.values())[0],'Items')
```

The most popular product for sales Raka Ele. sold 6 Items [ ]:

```
frequency= {} for item in
customer_details: if item in
frequency: frequency[item] +=
1
  else:
    frequency[item] = 1
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:
{'Kaustoobh Mahajan': 5, 'Siddhi kivale': 5, 'Sanket Kandalkar': 4, 'Yash mali': 4, 'Yash Bagul': 1, 'Tanuja Mali': 1}

Sorted dict is as below:
{'Kaustoobh Mahajan': 5, 'Siddhi kivale': 5, 'Sanket Kandalkar': 4, 'Yash mali': 4, 'Yash Bagul': 1, 'Tanuja Mali': 1}

The customer who buys most of the products Kaustoobh Mahajan buy 5 Items

[ ]:
```
from collections import Counter counter = dict(Counter(customer_details))
sorted_counter = sorted(counter.items(), key= lambda x:x[1],reverse=True)
sorted_counterprint('The customer = dict who(sorted_counter buys most ) of the
products',list(sorted_counter.
        keys())[0], 'buy',list(sorted_counter.values())[0],'Items')
```

The customer who buys most of the products Kaustoobh Mahajan buy 5 Items

[ ]:
```
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=female+1
print('Total no of Male=',male) print('Total
no of Female=',female)
```

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