

# Assignment-2

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Q) 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'

## Code:-

```
import csv
from collections import Counter

f1 = open("CSV's/Sales.csv","r")

product_details = [ ]
customer_details = [ ]
supplier_details = { }
supplist = [ ]
gender = [ ]

while(True):
    data = f1.readline()
    if not data:
        break;
    #print(data)
    data = data.replace("\n","")
    # print(data)
    temp = data.split(",")
    print(temp)
    product_details.append(temp[1])
    customer_details.append(temp[3]) # type: ignore
    supplier_details.update({temp[1]:temp[2]})
    supplist.append(temp[2])
    gender.append(temp[4])

f1.close()

customer_details = tuple(customer_details)
```

```
# print(supplist)
```

```
# print(supplier_details)
```

```
frequency = { }
```

```
for items in product_details:
```

```
    if items in frequency:
```

```
        frequency[items] += 1
```

```
    else:
```

```
        frequency[items] = 1
```

```
# print("\n\n\n")
```

```
# print(frequency.items())
```

```
# print("\n\n\n\n")
```

```
marklist = sorted(frequency.items(),key = lambda x: x[1],reverse = True)
```

```
# print(marklist)
```

```
# marklist= dict(marklist)
```

```
# print(marklist)
```

```
print(f"Most Poppular Item is : {marklist[0][0]}")
```

```
# print(supplier_details)
```

```
supplierList = list(supplier_details.items())
```

```
# print(supplierList)
```

```
CounterDict = Counter(supplist)
```

```
# print(CounterDict)
```

```
poplist = sorted(CounterDict.items(),key = lambda x : x[1], reverse = True)
```

```
poplist = list(poplist)
```

```
print(f"Best Supplier is: {poplist[0][0]}")
```

```
CountCustomer = Counter(customer_details)
# print(CountCustomer)

CustomerCountList = sorted(CountCustomer.items(),key = lambda x: x[1], reverse =
True)
CustomerCountList = list(CustomerCountList)

print(f"Customer Who Bought Most Products is: {CustomerCountList[0][0]}")
# print(gender)
countGender = Counter(gender)
# countGender = list(countGender)

a = (countGender.get("Female"))

print(f"No of Females are: {a}")
```

## Output:-

['Product ID', 'Product details', 'Supplier Details', 'Customer Details', 'Gender']

['P00001', 'Lenovo Laptop', 'Raka Ele.', 'Kaustubh Mahajan', 'Male']

['P00002', 'Samsung M31', 'Vijay Sales', 'Siddhi Kiwale', '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 Kiwale', 'Female']

['P00007', 'LG TV 32"', 'Vijay Sales', 'Sanket Kandalkar', 'Male']

['P00008', 'Oppo F21', 'Surya Ele.', 'Kaustubh Mahajan', 'Male']

['P00009', 'Lenovo Laptop', 'Raka Ele.', 'Yash Mali', 'Male']

['P00010', 'Samsung M31', 'Gada Ele.', 'Siddhi Kiwale', 'Female']

['P00011', 'LG TV 32"', 'Surya Ele.', 'Sanket Kandalkar', 'Male']

['P00012', 'Lenovo Laptop', 'Raka Ele.', 'Kaustubh Mahajan', 'Male']

['P00013', 'Samsung M31', 'Surya Ele.', 'Yash Mali', 'Male']

['P00014', 'Realmi 10pro', 'Raka Ele.', 'Siddhi Kiwale', 'Female']

['P00015', 'Lenovo Laptop', 'Gada Ele.', 'Tanuja Mali', 'Female']

['P00016', 'Oppo F21', 'Vijay Sales', 'Kaustubh Mahajan', 'Male']

['P00017', 'LG TV 32"', 'Deshmukh sales', 'Sanket Kandalkar', 'Male']

['P00018', 'Lenovo Laptop', 'Raka Ele.', 'Siddhi Kiwale', 'Female']

['P00019', 'Samsung M31', 'Deshmukh sales', 'Kaustubh Mahajan', 'Male']

['P00020', 'LG TV 32"', 'Gada Ele.', 'Yash Mali', 'Male']

Most Poppular Item is : Lenovo Laptop

Best Supplier is: Raka Ele.

Customer Who Bought Most Products is: Kaustubh Mahajan

No of Females are: 6

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