

**Title** - Tata Motors car inventory handling and order management project.

**Scope** – We can use this code to handle the car inventory and order from the customer very efficiently.

**Abstract** - Tata Motor's store has different categories of car in stock as shown below:

Item Name = [Nexon, Harrier, Tiago, Altroz, Safari]  
Price(in Lakh) = [10,18,5,8,20]  
Stock = [12,15,20,10,5]

When user give input with 3 order as -  
9 items of tiago  
2 items of safari  
3 items of harrier.

When user enters above input, the code should check the stock:

1. If the input no of order is valid. If the input no is negative, then display message:  
Output Line 1: Invalid Input  
And terminate process further.
2. If the input car-name is from Tata motor car's list and quantity in stock is less than quantity entered by user while placing order, then display message.  
Output Line 1: <carname> is not available
3. If quantity is less than stock and item is available; display a notification message showing:

Output Line 1: # Calculate price of each order and total price, and calculate the stock in hand

Bill of the item <carname> = <Price> Lakh  
Bill of the item <carname> = <Price> Lakh  
Bill of the item <carname> = <Price> Lakh  
Total Amount: <Price> Lakh

Output Line 2: \_quantity\_ LEFT # Updated stock for item after purchase

Stock in Hand:  
Nexon 12  
Harrier 12  
Tiago 11  
Altroz 10  
Safari 3

**Sample input-**

5  
Nexon  
10

12  
Harrier  
18  
15  
Tiago  
5  
20  
Altroz  
8  
10  
Safari  
20  
5  
3  
tiago  
9  
safari  
2  
harrier  
3

**Sample output -**

Bill of the item tiago = 45 Lakh  
Bill of the item safari = 40 Lakh  
Bill of the item harrier = 54 Lakh  
Total Amount: 139 Lakh

**Stock in Hand:**

Nexon 12  
Harrier 12  
Tiago 11  
Altroz 10  
Safari 3

## Code –

```
1 class car:
2     def __init__(self, cname, uPrice, qty_hand):
3         self.carName=cname #string
4         self.unitPrice=uPrice #int
5         self.qty_hand=qty_hand
6
7 class Store:
8     def __init__(self, carInventory):
9         self.carInventory=carInventory #{'carType':stock}
10
11     def buyItem(self, name, quan_order):
12         for i in self.carInventory:
13             if i.carName.lower()==name.lower() and i.qty_hand==0:
14                 return 0
15             |
16             elif i.carName.lower()==name.lower() and i.qty_hand >= quan_order:
17                 bill= (i.unitPrice*quan_order)
18                 i.qty_hand =(i.qty_hand- quan_order)
19                 return bill
20
21             elif i.carName.lower()==name.lower() and i.qty_hand < quan_order:
22                 bill = (i.unitPrice*i.qty_hand)
23                 i.qty_hand =0
24                 return bill
25         return 0
26
27 |
28 if __name__ == "__main__":
29     car1 = []
30     n = int(input())
31     if(n<0):
32         print("Invalid Input")
33         exit()
34     for i in range(n):
35         carName=input()
36         unitPrice=int(input())
37         stock=int(input())
38         car1.append(car(carName, unitPrice, stock))
39
40     b=Store(car1)
41
42     dict1={}
43     n2=int(input())
44     if(n2<0):
45         print("Invalid Input")
46         exit()
47     for i in range(n2):
48         preqd=input() #required car name
49         pqty=int(input()) #required quantity
50         if(pqty<0):
51             print("Invalid Input")
52             exit()
53         dict1[preqd]=pqty
54     Total = 0
55     for i in dict1:
56         x=b.buyItem(i, dict1[i])
57         Total +=x
58         if x==0:
59             print(f'{i} is not available')
60
61     else:
62         print(f'Bill of the item {i} =',x,"Lakh")
63     print("Total Amount: ", Total, "Lakh\n")
64
65     print('Stock in Hand:')
66     for i in b.carInventory:
67         print(i.carName, i.qty_hand)
```

## Input –

```
Python_Core_Assignment x
D:\Python\venv\Scripts\python.exe D:/Python/Python_Core_Assignment.py
9
Nexon
10
12
Harrier
10
15
Tiago
5
20
Altroz
0
10
Safari
20
5
3
tiago
9
safari
2
harrier
1
```

## Output –

```
Bill of the item tiago = 45 Lakh
Bill of the item safari = 40 Lakh
Bill of the item harrier = 54 Lakh
Total Amount: 139 Lakh

Stock in Hand:
Nexon 12
Harrier 12
Tiago 11
Altroz 10
Safari 3

Process finished with exit code 0
```