In [1]:
```
print("-"*40)
print("-"*40)
print("Inventory Management System")
print("-"*40)
print("-"*40)
```

```
----------------------------------------
----------------------------------------
Inventory Management System
----------------------------------------
----------------------------------------
```

Product Details

In [2]:
```
p_dct={123451:{'p_name':'smart phone','p_category':'electronics','p_quantity
       123452:{'p_name':'potato chips','p_category':'edible','p_quantity':10
       123453:{'p_name':'notebook','p_category':'stationary','p_quantity':20
       123454:{'p_name':'Tee-Shirt','p_category':'clothes','p_quantity':15,'
       123455:{'p_name':'sandels','p_category':'footwear','p_quantity':11,'p
```

In [3]:
```
p_dct
```

Out[3]:
```
{123451: {'p_name': 'smart phone',
  'p_category': 'electronics',
  'p_quantity': 5,
  'p_price': 10000,
  'p_expiry': 'N/A'},
 123452: {'p_name': 'potato chips',
  'p_category': 'edible',
  'p_quantity': 10,
  'p_price': 10,
  'p_expiry': '2 months from manufacture'},
 123453: {'p_name': 'notebook',
  'p_category': 'stationary',
  'p_quantity': 20,
  'p_price': 100,
  'p_expiry': 'N/A'},
 123454: {'p_name': 'Tee-Shirt',
  'p_category': 'clothes',
  'p_quantity': 15,
  'p_price': 1000,
  'p_expiry': 'N/A'},
 123455: {'p_name': 'sandels',
  'p_category': 'footwear',
  'p_quantity': 11,
  'p_price': 500,
  'p_expiry': 'N/A'}}
```

In [ ]:
```
p_id=int(input("Enter the product ID: "))
print("-"*20)
print(p_dct[p_id])
```

Add New Product

In [ ]:
```
temp={}             #creating temporary dictionary
p_id=int(input("Enter the product ID: "))
p_name=str(input("Enter the product name: "))
p_category=str(input("Enter the product category: "))
p_quantity=int(input("Enter the product quantity: "))
p_price=int(input("Enter the product price: "))
p_expiry=str(input("Enter the product expiry: "))
temp['p_name']='p_name'
temp['p_category']='p_category'
temp['p_quantity']='p_quantity'
temp['p_price']='p_price'
temp['p_expiry']='p_expiry'
p_dct[p_id]=temp
```

In [ ]:
```
p_dct
```

Add New Product (Another Method)

In [4]:
```
temp={}             #creating temporary dictionary
p_id=int(input("Enter the product ID: "))
temp['p_name']=str(input("Enter the product name: "))
temp['p_category']=str(input("Enter the product category: "))
temp['p_quantity']=int(input("Enter the product quantity: "))
temp['p_price']=int(input("Enter the product price: "))
temp['p_expiry']=str(input("Enter the product expiry: "))
p_dct[p_id]=temp
```

```
Enter the product ID: 123456
Enter the product name: steel container
Enter the product category: utensils
Enter the product quantity: 4
Enter the product price: 150
Enter the product expiry: N/A
```

Display Inventory

In [5]:
```
p_dct[p_id]
```

Out[5]:
```
{'p_name': 'steel container',
 'p_category': 'utensils',
 'p_quantity': 4,
 'p_price': 150,
 'p_expiry': 'N/A'}
```

In [6]:

```
for k in p_dct.items():
    #When looping through dictionaries, the key and corresponding value can
    print(k)
    print('-'*125)
```

```
(123451, {'p_name': 'smart phone', 'p_category': 'electronics', 'p_quantit
y': 5, 'p_price': 10000, 'p_expiry': 'N/A'})
-----------------------------------------------------------------------------
-------------------------------------------------
(123452, {'p_name': 'potato chips', 'p_category': 'edible', 'p_quantity': 1
0, 'p_price': 10, 'p_expiry': '2 months from manufacture'})
-----------------------------------------------------------------------------
-------------------------------------------------
(123453, {'p_name': 'notebook', 'p_category': 'stationary', 'p_quantity': 2
0, 'p_price': 100, 'p_expiry': 'N/A'})
-----------------------------------------------------------------------------
-------------------------------------------------
(123454, {'p_name': 'Tee-Shirt', 'p_category': 'clothes', 'p_quantity': 15,
'p_price': 1000, 'p_expiry': 'N/A'})
-----------------------------------------------------------------------------
-------------------------------------------------
(123455, {'p_name': 'sandels', 'p_category': 'footwear', 'p_quantity': 11,
'p_price': 500, 'p_expiry': 'N/A'})
-----------------------------------------------------------------------------
-------------------------------------------------
(123456, {'p_name': 'steel container', 'p_category': 'utensils', 'p_quantit
y': 4, 'p_price': 150, 'p_expiry': 'N/A'})
-----------------------------------------------------------------------------
-------------------------------------------------
```

In [7]:
```
for i in p_dct:
    print(i)
    print(p_dct[i])
    print('-'*125)
```

```
123451
{'p_name': 'smart phone', 'p_category': 'electronics', 'p_quantity': 5, 'p_
price': 10000, 'p_expiry': 'N/A'}
-----------------------------------------------------------------------------
-------------------------------------------------
123452
{'p_name': 'potato chips', 'p_category': 'edible', 'p_quantity': 10, 'p_pri
ce': 10, 'p_expiry': '2 months from manufacture'}
-----------------------------------------------------------------------------
-------------------------------------------------
123453
{'p_name': 'notebook', 'p_category': 'stationary', 'p_quantity': 20, 'p_pri
ce': 100, 'p_expiry': 'N/A'}
-----------------------------------------------------------------------------
-------------------------------------------------
123454
{'p_name': 'Tee-Shirt', 'p_category': 'clothes', 'p_quantity': 15, 'p_pric
e': 1000, 'p_expiry': 'N/A'}
-----------------------------------------------------------------------------
-------------------------------------------------
123455
{'p_name': 'sandels', 'p_category': 'footwear', 'p_quantity': 11, 'p_pric
e': 500, 'p_expiry': 'N/A'}
-----------------------------------------------------------------------------
-------------------------------------------------
123456
{'p_name': 'steel container', 'p_category': 'utensils', 'p_quantity': 4, 'p
_price': 150, 'p_expiry': 'N/A'}
-----------------------------------------------------------------------------
-------------------------------------------------
```

Search For A Product

Search Using Product ID

In [8]:
```
p_id= int(input("Enter the product id of the product you want to search: "))
print('-'*125)
print(p_dct[p_id])
print('-'*125)
```

```
Enter the product id of the product you want to search: 123455
-----------------------------------------------------------------------------
-------------------------------------------------
{'p_name': 'sandels', 'p_category': 'footwear', 'p_quantity': 11, 'p_pric
e': 500, 'p_expiry': 'N/A'}
-----------------------------------------------------------------------------
-------------------------------------------------
```

Search using Product Name

In [9]:
```
p_name= str(input("Enter the name of the product you want to search: "))
print("-"*125)
for key in p_dct.keys():
    if(p_dct[key]['p_name']==p_name):
        print(key,':',p_dct[key])
print('-'*125)
```

```
Enter the name of the product you want to search: sandels
-----------------------------------------------------------------------------
-------------------------------------------------
123455 : {'p_name': 'sandels', 'p_category': 'footwear', 'p_quantity': 11,
'p_price': 500, 'p_expiry': 'N/A'}
-----------------------------------------------------------------------------
-------------------------------------------------
```

Search Using Product Category

In [10]:
```
p_category= str(input("Enter the category of the product you want to search:
print("-"*125)
for key in p_dct.keys():
    if(p_dct[key]['p_category']==p_category):
        print(key,':',p_dct[key])
print('-'*125)
```

```
Enter the category of the product you want to search: footwear
-----------------------------------------------------------------------------
-------------------------------------------------
123455 : {'p_name': 'sandels', 'p_category': 'footwear', 'p_quantity': 11,
'p_price': 500, 'p_expiry': 'N/A'}
-----------------------------------------------------------------------------
-------------------------------------------------
```

Update Product Details

In [ ]:
```
p_id=int(input("Enter the product ID of the product which needs an update of
print('-'*50)
quantity=str(input("Do you want to update quantity of product in the stock?
print('-'*50)
if quantity=='yes':
    p_quantity=int(input("Enter the updated quantity of product in the stock
    p_dct[p_id]['p_quantity']=p_quantity
    print(p_id,':',p_dct[p_id])
    print('-'*50)
#price=str(input("Do you want to update the price per unit of the product? "
    print('-'*50)

    #if quantity=='yes':
    # p_quantity=int(input("Enter the updated quantity of product in the sto
    #p_dct[p_id]['p_quantity']==p_quantity
    #print(p_id,':',p_dct[p_id])
    #print('-'*50)
price=str(input("Do you want to update the price per unit of the product? "))
if price=='yes':

    p_price=int(input("Enter the updated quantity of product in the stock: "
    p_dct[p_id]['p_price']=p_price
    print(p_id,':',p_dct[p_id])
print('-'*50)
```

```
Enter the product ID of the product which needs an update of product detail
s: 123455
--------------------------------------------------
Do you want to update quantity of product in the stock?  yes
--------------------------------------------------
Enter the updated quantity of product in the stock: 12
123455 : {'p_name': 'sandels', 'p_category': 'footwear', 'p_quantity': 12,
'p_price': 500, 'p_expiry': 'N/A'}
--------------------------------------------------
--------------------------------------------------
```

In [ ]: