PYTHON DICTIONARY

1. Create dictionary and print it

2. Print the Length of the dictionary

3. Do all the operations conducted in the sessions(access the items, add item, remove item)

Creating a dictionary for phone numbers and printing it

```
In [3]: Dictionary={"joe":9895130163,"tom":9495670893,"rob":9447406277}
        print(Dictionary)

        {'joe': 9895130163, 'tom': 9495670893, 'rob': 9447406277}
```

To get the length of dictionary

```
In [4]: Dictionary={"joe":9895130163,"tom":9495670893,"rob":9447406277}
        print(len(Dictionary))

        3
```

To add another data

```
In [7]: Dictionary={"joe":9895130163,"tom":9495670893,"rob":9447406277}
        Dictionary["sam"]=9440635156
        print(Dictionary)

        {'joe': 9895130163, 'tom': 9495670893, 'rob': 9447406277, 'sam': 9440635156}
```

To delete a data

```
In [8]: del Dictionary["joe"]
        print(Dictionary)

        {'tom': 9495670893, 'rob': 9447406277, 'sam': 9440635156}
```

To check a name in dictionary

```
In [10]: "tom" in Dictionary

Out[10]: True
```

PYTHON LIST

1.To print the second item in the 'Grocery 'list and print it

```
In [1]: Grocery=['bread', 'pasta','veggies','fruits','rice','wheat','sugar','pulses']
        print(Grocery[1])
```

```
pasta
```

2. To change an item tea to cofee in the list 'Items'

```
In [8]: Items =['sugar','milkpowder','tea']
        print('Items=',Items)
        Items[2]='cofee'
        print('New_items=',Items)
```

```
Items= ['sugar', 'milkpowder', 'tea']
New_items= ['sugar', 'milkpowder', 'cofee']
```

3.Use the append method to add "orange" to the fruits list.

```
In [9]: Fruits=['Apple','mango','jackfruit']
        print('Fruits=',Fruits)
        Fruits.append('orange')
        print('appended Fruits list=',Fruits)
```

```
Fruits= ['Apple', 'mango', 'jackfruit']
appended Fruits list= ['Apple', 'mango', 'jackfruit', 'orange']
```

4.Use the insert method to add "lemon" as the second item in the fruits list.

```
In [3]: Fruits=['Apple','mango','jackfruit']
        print('Fruits=',Fruits)
        Fruits.insert(1,'Lemon')
        print('Fruits with new fruit inserted =',Fruits)
```

```
Fruits= ['Apple', 'mango', 'jackfruit']
Fruits with new fruit inserted = ['Apple', 'Lemon', 'mango', 'jackfruit']
```

5.Use the remove method to remove "eggs" from the 'grocery' list.

```
In [4]: grocery=["milk","meat","Pulses","eggs","vegetables"]
        grocery.pop(3)
        print("Grocery list after deletion=",grocery)
```

```
Grocery list after deletion= ['milk', 'meat', 'Pulses', 'vegetables']
```

6.Use negative indexing to print the last item in the list.

```
In [7]: grocery=["milk","meat","Pulses","eggs"]
        print("last item=",grocery[-1])
```

```
last item= eggs
```

7.Use a range of indexes to print the third, fourth, and fifth item in the list.

```
In [12]: list1=['bread', 'pasta','veggies','fruits','rice','wheat','sugar','pulses']
         print("The third,fourth and fifth term of list1 are:",list1[2:5])
```

```
The third,fourth and fifth term of list1 are: ['veggies', 'fruits', 'rice']
```

8.Use the correct syntax to print the number of items in the list

In [30]:
```
Constructor=['bread', 'pasta','veggies','fruits','rice','wheat','sugar','pulses']
print('List is given by=',Constructor)
```

```
List is given by= ['bread', 'pasta', 'veggies', 'fruits', 'rice', 'wheat', 'sugar', 'pulses']
```

9.Create two list, do the slicing ,concatenating and repetition of the lists.

In [20]:
```
list1=['Bread', 'Pasta','Veggies','Fruits']
list2 =['Rice','Wheat','Sugar','Pulses']
print('Slicing follows:')
print('From 2 to 5 items of list1= ',list1[2:4])
print('Entireitems of list2=',list2[ : ])
print("to concatenate",list1+list2)
print("To repeat:",list1*2)
```

```
Slicing follows:
From 2 to 4 items of list1=  ['Veggies', 'Fruits']
Entireitems of list2= ['Rice', 'Wheat', 'Sugar', 'Pulses']
to concatenate ['Bread', 'Pasta', 'Veggies', 'Fruits', 'Rice', 'Wheat', 'Sugar', 'Pulses']
To repeat: ['Bread', 'Pasta', 'Veggies', 'Fruits', 'Bread', 'Pasta', 'Veggies', 'Fruits']
```

10.Check if "Rayan" is present in the name list:

In [17]:
```
Names=['Ayisha','Benita','rayaan','celista']
if 'Benita'in Names:
    print("Yes,'Benita' is in the Names")
```

```
Yes,'Benita' is in the Names
```

PYTHON OPERATORS

1.Write a program to perform Arithmetic operators in Python arithmetic

In [2]:
```
x=25
y=53
print("The sum is :",x+y)
print("The difference is:",y-x)
print("The product is:" ,x*y)
print("the quotient is:",x/y)
print("The remainderis:",y%x)
print("the square or exponentiation is:",x**y)
print("The floor division is :", x//y)
```

```
The sum is : 78
The difference is: 28
The product is: 1325
the quotient is: 0.4716981132075472
The remainderis: 3
the square or exponentiation is: 12325951644078309459558258832543534838643850548578484449535608291625976562 5
The floor division is : 0
```

2.Write a program to perform Comparison Operators in Python

```
x=50
y=36
print("To check the numbers are same:",x==y)
print("To check whether the numbers are not equal:",x!=y)
print("To check the number is greater:",x>y)
print("To check the number is smaller:",x<y)
print("To check the number is smaller than or equalto:" ,x<=y)
print("To check the number is greater than or equal to:", x>=y)
```

```
To check the numbers are same: False
To check whether the numbers are not equal: True
To check the number is greater: True
To check the number is smaller: False
To check the number is smaller than or equalto: False
To check the number is greater than or equal to: True
```

3.Write a program to perform Logical Operators in Python

In [6]:
```
x=32
print("To check both statements are true:", x>15 and x<42)
print("To reverse the result:false if the result is true:",not(x>5 and x<10))
print("To check one of the statement is true:", x>5 or x<10)
```

```
To check both statements are true: True
To reverse the result:false if the result is true: True
To check one of the statement is true: True
```

Write a program to perform Assignment Operators in Python

In [8]:
```
x=30
print("Returns the same value of x...>", x)
x=53
x+=2
print("Returns the operation x=x+2...>", x)
x=34
x-=3
print("Returns the operation x=x-3...>",x)
x=10
x/=5
print("Returns the operation x=x/5...>",x)
x=6
x*=2
print("Returns the operation x=x*2...>",x)
x=4
x**=3
print("Returns the operation x=x**3...>",x)
x=4
x//=8
print("Returns the operation x=x//8...>", x)
x=15
x&=3
print("Returns the operation x=x&3...>", x)
x=3
x^=2
print("Returns the operation x=x^2...>",x)
x=4
x>>=3
print("Returns the operation x=x>>3...>" ,x)
x=4
x<<=5
print("Returns the operation x=x<<5...>", x)
x=3
x|=4
print("Returns the operation x=x|4...>",x)
x=25
x%=5
print("Returns the operation x=x%5..>",x)
```

```
Returns the same value of x...> 30
Returns the operation x=x+2...> 55
Returns the operation x=x-3...> 31
Returns the operation x=x/5...> 2.0
Returns the operation x=x*2...> 12
Returns the operation x=x**3...> 64
Returns the operation x=x//8...> 0
Returns the operation x=x&3...> 3
Returns the operation x=x^2...> 1
Returns the operation x=x>>3...> 0
Returns the operation x=x<<5...> 128
Returns the operation x=x|4...> 7
Returns the operation x=x%5..> 0
```

5.Write a program to perform Identity Operator

In [10]:
```
x= ['apple','banana']
y=['apple','banana']
z=x
print("check whether it is true if both are same...>" ,x is z)
print("check whether it is true if both are same...>" ,x is y)
print("check whether it is true if both are not same...>" ,x is not y)
```

```
check whether it is true if both are same...> True
check whether it is true if both are same...> False
check whether it is true if both are not same...> True
```

6.Write a program to perform Membership Operator

In [3]:
```
x= ['apple','banana']
print("check banana is present:","banana" in x)
print("check kiwi is present:","kiwi" in x)
```

```
check banana is present: True
check kiwi is present: False
```