4th data type tuple :-

Tuple:- Tuple is a sequence, iterable , immutable ,ordered, data type in python. Tuple is define by using ( ) symbol.

In [1]:

```
a=('c','c++','java','python')
```

In [ ]:

```

```

In [2]:

```
print(type(a))
```

```
<class 'tuple'>
```

In [3]:

```
print(a[3])
```

```
python
```

In [4]:

```
print(a[1:4])
```

```
('c++', 'java', 'python')
```

In [5]:

```
print(len(a))
```

```
4
```

In [6]:

```
print(max(a))
```

```
python
```

In [7]:

```
print(min(a))
```

```
c
```

In [ ]:

```

```

string formating 2nd data type

In [10]:

```
a=32
b=21
c=a+b
print('the sum of %d & %d is %d'%(a,b,c))  ## the sum of 32 & 21 is 53
```

```
the sum of 32 & 21 is 53
```

In [11]:

```
print('the sum of {} and {} is {}'.format(a,b,c) )  ## the sum of 32 and 21 is 5
3
print('the sum of{0} and {1} is {2}'.format(a,b,c) )  ##  the sum of32 and 21 is
53
```

```
the sum of 32 and 21 is 53
the sum of32 and 21 is 53
```

5th data type dictionary:-

In [19]:

```
d =  { 'name':'hrkhan' ,'age':20  , 'class':'python','mobile':[8768566541 , 6596
549684596 ] , 1 : "adnan"   }
```

In [23]:

```
print(d["mobile"][1])
```

```
6596549684596
```

In [24]:

```
a = {'name':['hr','khan',3,4,5],'age':20,'class':'python','mobile':8768566541}
```

In [25]:

```
print(a)
```

```
{'name': ['hr', 'khan', 3, 4, 5], 'age': 20, 'class': 'python', 'mob
ile': 8768566541}
```

In [26]:

```
print(a.items())
```

```
dict_items([('name', ['hr', 'khan', 3, 4, 5]), ('age', 20), ('clas
s', 'python'), ('mobile', 8768566541)])
```

In [27]:

```
print(a.keys())
```

```
dict_keys(['name', 'age', 'class', 'mobile'])
```

In [30]:

```
print(a.values())
```

```
dict_values([['hr', 'khan', 3, 4, 5], 20, 'python', 8768566541])
```

In [33]:

```
b={1:'hello',2:'bye' }
```

In [34]:

```
b["name"] = "adnan"
```

In [36]:

```
b[1] = "hello everyone"
```

In [38]:

```
b.pop(2)
```

Out[38]:

```
'bye'
```

6th Data Type sets :-

Set:-

- Set is a unique , individual sequencial, mutable , iterable , data type in python.
- Set does not support duplicate item. it does not support indexing & slicing.

In [42]:

```
a = {1 , 2, 3,4  , 4, 5 }
```

In [43]:

```
print(type(a))
```

```
<class 'set'>
```

In [51]:

```
print(a)
```

```
{1, 2, 3, 4, 5}
```

In [54]:

```
a = [ 1,  2 ,  3 ,  4 ,  5 ,  5  , 3 , 4 ]
a = list(set(a))
```

In [55]:

```
print(a)
```

```
[1, 2, 3, 4, 5]
```

In [56]:

```
a = { "a " , "assd" , "fff" , "deew" , "eEeeeë"}
```

In [57]:

```
print(a)
```

```
{'fff', 'a ', 'deew', 'eEeeeë', 'assd'}
```

In [58]:

```
a.add("adnan")
```

In [59]:

```
print(a)
```

```
{'fff', 'a ', 'adnan', 'deew', 'eEeeeë', 'assd'}
```

In [62]:

```
a.pop()
```

Out[62]:

```
'a '
```

In [63]:

```
a.remove("adnan")
```

In [64]:

```
print(a)
```

```
{'deew', 'eEeeeë', 'assd'}
```

Data types conversion : -

- int( ) convert data type in integer value.
- float( ) convert data type in float value.
- complex( ) convert data type in complex no.
- str( ) convert data type in string.
- list( ) convert data type in list.
- tuple( ) convert data type in tuple.
- dict( ) convert data type in dictionary.
- set( ) convert data type in set .
- frozenset( ) convert data type in frozenset.

Conditional statement:-

- if statement
- elif statement
- else statement

In [71]:

```
num = int(input())
if (num > 0):
    print("+ve number " )
elif (num< 0 ):
    print("-ve number")
else:
    print("number is 0")
```

```
number is 0
```

In [72]:

```
a=int(input("enter the 1st no:-" ))
b=int(input("enter the 2nd no:- "))
c=int(input("enter the 3rd no:- "))

if a>b and a>c:
        print("a is greatest: ")
elif b>c:
     print("b is greatest")
elif c>b:
    print("c is greatest")
else:
     print("all r same ")
```

```
all r same
```

In [ ]:

In [ ]:

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In [ ]:

In [ ]:

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In [ ]:

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