1. *create tuple conver the tuple into list.reverse back list into tuple*

a=(1,3,5,6,8,9)  
b=list(a)  
print("tuple to list:",b)  
rev=b[::-1]  
c=tuple(rev)  
print(c)

**output**

tuple to list: [1, 3, 5, 6, 8, 9]

(9, 8, 6, 5, 3, 1)

1. *delete the tuple*

a=(1,2,3,4,5)  
bkp=a  
del a  
a=bkp  
print(a)

**output**

(1, 2, 3, 4, 5)

|  |  |  |  |
| --- | --- | --- | --- |
| **List** | **Tuple** | **Set** | **Dictionary** |
| It is ordered | It is ordered | It is unordered | It is unordered |
| It is mutable | It is immutable | It is mutable | It is mutable |
| Allows duplicates | Allows duplicates | Does not allow duplicates | No duplicate keys |
| Used to defined square brackets | Used to defined parentheses | Used to defined curly braces | Used to defined curly braces |
| **EX:** my\_list = [1, 2, 3, 4, 4] | **EX:** my\_tuple = (1, 2, 3, 4, 4) | **EX:** my\_set = {1, 2, 3, 4} | **EX:** my\_dict = {"name": "Alice", "age": 30} |

1. *create a 5 sets*a={1,2.34,"madhuri",True}  
   b={2,3.65,"mounika",False}  
   c={7,3.21,"malathi",True}  
   d={8,6.52,"Hridayansh",False}  
   e={4,2.12,"geethu",True}
2. *creat a set perform union,intersection,difference***#union**'''a={1,2.34,"madhuri",True}  
   b={2,3.65,"mounika",False,True}  
   res=a|b  
   print("union operation:",res)

**output**

union operation: {False, 1, 2.34, 'mounika', 'madhuri', 2, 3.65}

**#intersection**  
a={1,2.34,"madhuri",True}  
b={2,3.65,"mounika",False,True}  
res=a&b  
print("intersection operation:",res)

**output**

intersection operation: {1}

**#difference**  
a={1,2.34,"madhuri",True}  
b={2,3.65,"mounika",False,True}  
res=a-b  
print("difference operation",res)

**output**

difference operation {2.34, 'madhuri'}

1. *write program to print even number*for i in range(10):  
    if i %2==0:  
    print("Even numbers:",i)

**output**

Even numbers: 2

Even numbers: 4

Even numbers: 6

Even numbers: 8

1. *write a program to print odd number*for i in range(10):  
    if i%2!=0:  
    print("odd numbers:",i)

***output***

odd numbers: 3

odd numbers: 5

odd numbers: 7

odd numbers: 9

1. *check the given number is odd or even*

num=int(input("enter a number:"))  
if num%2==0:  
 print("It is even:",num)  
else:  
 print("It is odd:",num)

**output**

enter a number:5

It is odd: 5

1. *write a python program capital letters in list,tuple,set*

***#*List**list\_item=["Puropale Creation And It Solutions"]  
list\_item1=[]  
for i in list\_item:  
 for j in i:  
 if j.istitle():  
 list\_item1.append(j)  
print(list\_item1)

**output**

['P', 'C', 'A', 'I', 'S']

**Tuple**tuple\_item=("Puropale Creation And It Solutions")  
tuple\_item1=[]  
for i in tuple\_item:  
  
 if i.istitle():  
 tuple\_item1.append(i)  
print(tuple\_item1)

**output**

['P', 'C', 'A', 'I', 'S']

1. *Take two list and print common elements in list*a=[1,2,4,7,8]  
   b=[2,4,6,9,0]  
   c=[]  
   for i in a:  
    for j in b:  
    if i==j:  
    c.append(i)  
   print(c)

**output**

[2, 4]

1. *Take two sets and print common elements in set*a={1,2,4,6,8,9}  
   b={2,1,5,8,0}  
   c=set()  
   for i in a:  
    for j in b:  
    if i==j:  
    c.add(i)  
   print(c)

***output***

{8, 1, 2}

1. *Take two dictionary and print common elements in dictionary*

a={'a':1,'b':2,'c':4,'d':3}  
b={'a':2,'b':3,'c':4,'d':5}  
c=set()  
for i in a.values():  
   
 for j in b.values():  
   
 if i==j:  
 c.add(i)  
print(c)

**output**

{2, 3, 4}

1. *Take two list and print unique elements in list*a=[1,2,4,7,8]  
   b=[2,4,6,9,0]  
   c=[]  
   for i in a:  
    if i in b:  
    c.append(i)  
   print(c)

**output**

[2, 4]

1. *Take two tuple and print unique elements in tuple*a=(1,2,4,6,8,9)  
   b=(2,1,5,8,0)  
   c=[]  
   for i in a:  
    if i in b:  
    c.append(i)  
   c=tuple(c)  
   print(c)

***output***

(1, 2, 8)

1. *Take two dictionary and print unique elements in dictionary*a={'a':1,'b':2,'c':4,'d':3}  
   b={'a':2,'b':3,'c':4,'d':5}  
   c=set()  
   for i in a.values():  
    if i not in b.values():  
    c.add(i)  
   for i in b.values():  
    if i not in a.values():  
    c.add(i)  
   print(c)

**output**

{1, 5}