```
#list creation
numbers = [1,2,3,4,5]
print(numbers)
```

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

```
#list indexing
numbers = [1,2,3,4,5]
print(numbers[0])
print(numbers[-1])
print(numbers[2])
```

```
1
5
3
```

```
#list append and insert
numbers = [1,2,3,4,5]
numbers.append(6)
print(numbers)
numbers.insert(0,18)
print(numbers)
```

```
[1, 2, 3, 4, 5, 6]
[18, 1, 2, 3, 4, 5, 6]
```

```
#list removal
numbers = [1,2,3,4,5]
numbers.remove(5)
print(numbers)

#list removal with using pop
numbers = [1,2,3,4,5]
numbers.pop(3)
print(numbers)
```

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

```
#list sorting
numbers = [18,20,45,7,16]
numbers.sort()
print(numbers)
```

```
[7, 16, 18, 20, 45]
```

```
#list reversal
books = ["the predator","the emperor", "the reaper","the annihilator"]
books.reverse()
print(books)
```

```
['the annihilator', 'the reaper', 'the emperor', 'the predator']
```

```
#sum of list elements
numbers = [20,30,40,50]
print(sum(numbers))
```

```
140
```

```
#maximum and minimum of a list
numbers = [100,85,84,95]
min_element = min(numbers)
max_element = max(numbers)
print(min_element)
print(max_element)
```

```
84
100
```

```
#count occurrences
names = ["tristan","dante", "jeremy","tristan"]
names.count("tristan")
```

```
2
```

```
#merging lists
list1 = [1,2,3,4,4]
list2 = [5,6,7,8,7,7,8,9]
merged_list = list1+list2
unique_list = list(set(merged_list))
print(unique_list)
```

```
[1, 2, 3, 4, 5, 6, 7, 8, 9]
```

```
#tuple creation and access
names = ("tristan","dante","jeremy")
print(names)
names[2]
```

```
('tristan', 'dante', 'jeremy')
'jeremy'
```

```
#tuple unpacking
names = ("sagar","sush","swap","swaruu")
bro,me,akka,anna = names
print(bro)
print(me)
print(akka)
print(anna)
```

```
books = ("the predator","the emperor", "the reaper","the annihilator")
book1,book2,*rest = books
print(book1)
print(book2)
print(rest)
```

```
numbers = (1,2,3,4,5)
a,*middle,b,c = numbers
print(a)
print(middle)
print(b)
print(c)

size = (24,(25,26),27,28)
small,(small,medium),large,extra = size
print(small)
print((small,medium))
print(large)
print(extra)
```

```
sagar
sush
swap
swaruu
the predator
the emperor
['the reaper', 'the annihilator']
1
[2, 3]
4
5
25
(25, 26)
27
28
```

```
#tuple to list , list to tuple
tournaments = ["cwc","CT","T20I","IPL","WTC"]
tournaments = tuple(tournaments)
print(tournaments)

tropes = ("enemies to lovers","mafia","marriage of convenience")
tropes = list(tropes)
print(tropes)
```

```
('cwc', 'CT', 'T20I', 'IPL', 'WTC')
['enemies to lovers', 'mafia', 'marriage of convenience']
```

```
#tuple concatenaton
awards = ("pott","orange cap","mom","mvp","purple cap","mos")
players = ("virat","kl rahul" ,"hardik pandya","shreyas iyer")
awardedplayers = awards+players
print(awardedplayers)
```

```
('pott', 'orange cap', 'mom', 'mvp', 'purple cap', 'mos', 'virat', 'kl rahul', 'hardik pandya'
```

```
#dictionary creation
favpersons = {
    "celebrity" : "virat",
    "family"    : "amma",
    "friend"    : "jahnavi"
}
print(favpersons)
```

```
{'celebrity': 'virat', 'family': 'amma', 'friend': 'jahnavi'}
```

```
#accessing dictionary values
favpersons = {
    "celebrity" : "virat",
    "family"    : "amma",
    "friend"    : "jahnavi"
}
print(favpersons["celebrity"])
```

```
virat
```

```
#adding to a dictionary
favpersons = {
    "celebrity" : "virat",
    "family"    : "amma",
```

```
    "friend"    : "jahnavi"
}
favpersons["benchmate"] = "mona"
print(favpersons)
```

```
{'celebrity': 'virat', 'family': 'amma', 'friend': 'jahnavi', 'benchmate': 'mona'}
```

```
#updating a dictionary
virat = {
    "age" : "35",
    "country" : "india"
}
virat["age"] = "36"
print(virat)
```

```
{'age': '36', 'country': 'india'}
```

```
#removing elements from a dictionary
cwc = {
    "won" : 1983,
    "lost" : 2023,
    "recent win" : 2011
}
del cwc["lost"]
print(cwc)
```

```
{'won': 1983, 'recent win': 2011}
```

```
#iterating through a dictionary
cwc = {
    "won" : 1983,
    "lost" : 2023,
    "recent win" : 2011
}
for key,value in cwc.items():
    print(key,value)
```

```
won 1983
lost 2023
recent win 2011
```

```
#merging two dictionaries
book1 = {
         "author" : "runyx",
          "name" : "the predator"
        }
book2 = {
          "price"  : 1000
         }
book1.update(book2)
print(book1)
```

```
{'author': 'runyx', 'name': 'the predator', 'price': 1000}
```

```
#to check if a key exists in dictionary
kohli = {
          "profession" : "cricketer" ,
          "age" : 36 ,
          "spouse" : "anushka sharma"
         }
if "age" in kohli:
   print("key 'age' exists in kohli")
```

```
else:
   print("key 'age' does not exist in kohli")
```

```
key 'age' exists in kohli
```

```
#set creation and operation
a = {1,2,3,4}
b = {5,6,7,8}
a|b
```

```
{1, 2, 3, 4, 5, 6, 7, 8}
```

```
a&b
```

```
set()
```

```
a-b
```

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

```
#add and remove elements from set
a = {1,2,3,4,5}
a.add(6)
a
a.remove(3)
a
```

```
{1, 2, 4, 5, 6}
```

```
#check elements in set
a = {1,2,3,4,5}
if 1 in a:
  print("1 exists in a")
else:
  print("1 does not exist in a")
```

```
1 exists in a
```

```
a = {1,2,3,4,5}
b = {1,2,4,8,9}
common_elements = a&b
print(common_elements)
```

```
{1, 2, 4}
```

```
a = [1,2,3,4,4,5,6,6]
unique_list = set(a)
print(unique_list)
```

```
{1, 2, 3, 4, 5, 6}
```

Start coding or generate with AI.