

```
In [1]: list1=[1,2,3,['a','b','c']]
        o1=list1[3]
        o1[1]
```

Out[1]: 'b'

```
In [2]: list1[3][1]
```

Out[2]: 'b'

```
In [3]: list2=[['Apple','Banana']]
        len(list2)
```

Out[3]: 1

```
In [6]: print(list2[0][0])
        print(list2[0][1])
```

Apple  
Banana

```
In [8]: list3=['a','b',[1,20]]
        list3[2][1]
```

Out[8]: 20

```
In [13]: list4=['hyd',['A','B',[1,20]]]
        list4[1][2][1]
```

Out[13]: 20

```
In [14]: list6=[[['bus']]]
        list6[0][0][0]
```

Out[14]: 'bus'

```
In [18]: list7=[[[[[[[['cherry',['Apple']]]]]]]]]
        list7[0][0][0][0][0][0][0][1][0]
```

Out[18]: 'Apple'

```
In [24]: ► l1=['Hyd','Mumbai','Bhopal','Chennai']
#print the elements which are having len of charcaters >5
#idea:Iterate through List
#print each element
#apply the condition
#if the condition is staisfied then print the out put

for i in l1:
#    print(i) --- here we are printing all the cities hence we will put c
    if len(i)>5:
        print(i)
```

Mumbai  
Bhopal  
Chennai

```
In [25]: ► l1=['Hyd','Mumbai','Bhopal','Chennai']  
dir('de')
```

```
Out[25]: ['__add__',
          '__class__',
          '__contains__',
          '__delattr__',
          '__dir__',
          '__doc__',
          '__eq__',
          '__format__',
          '__ge__',
          '__getattribute__',
          '__getitem__',
          '__getnewargs__',
          '__gt__',
          '__hash__',
          '__init__',
          '__init_subclass__',
          '__iter__',
          '__le__',
          '__len__',
          '__lt__',
          '__mod__',
          '__mul__',
          '__ne__',
          '__new__',
          '__reduce__',
          '__reduce_ex__',
          '__repr__',
          '__rmod__',
          '__rmul__',
          '__setattr__',
          '__sizeof__',
          '__str__',
          '__subclasshook__',
          'capitalize',
          'casefold',
          'center',
          'count',
          'encode',
          'endswith',
          'expandtabs',
          'find',
          'format',
          'format_map',
          'index',
          'isalnum',
          'isalpha',
          'isascii',
          'isdecimal',
          'isdigit',
          'isidentifier',
          'islower',
          'isnumeric',
          'isprintable',
          'isspace',
          'istitle',
          'isupper',
          'join',
```

```
'ljust',  
'lower',  
'lstrip',  
'maketrans',  
'partition',  
'removeprefix',  
'removesuffix',  
'replace',  
'rfind',  
'rindex',  
'rjust',  
'rpartition',  
'rsplit',  
'rstrip',  
'split',  
'splitlines',  
'startswith',  
'strip',  
'swapcase',  
'title',  
'translate',  
'upper',  
'zfill']
```

```
In [28]: #print upper cases  
for i in l1:  
    print(i.upper())  
#     if len(i)>5:  
#         print(i)
```

```
HYD  
MUMBAI  
BHOPAL  
CHENNAI
```

```
In [29]: #print lower cases  
for i in l1:  
    print(i.lower())
```

```
hyd  
mumbai  
bhopal  
chennai
```

```
In [32]: l1=['Hyd','Mum#bai','Bho#pal','Chennai']  
#retrive the elements which are not having hash #  
for i in l1:  
    if '#' not in i:  
        print(i)
```

```
Hyd  
Chennai
```

```
In [42]: ▶ str1='Hello my name is Python'
#identify the max len word
#min len of word
#odea: apply split operation: lsit of words
#max min
max(str1.split()),min(str1.split())

#this is waste its givening values based on ascii
```

Out[42]: ('name', 'Hello')

```
In [43]: ▶ l1=str1.split()
max(l1,key=len), min(l1,key=len)
```

Out[43]: ('Python', 'my')

### *iterable*

- if you are able to print char or elements using for loop
- list, string, tuple, dic

```
In [53]: ▶ qns=['Who is the pm of India?',
               'What is the capital of india?',
               'No. of states in india?',
               'Who is the captain of ICT']
ans=['modi','delhi',29,'Rohit sharma']

#you need to iterate through qns list
#qn1='who is pm of india'
#ans=input('Enter your answer')

for i in qns:
#     qns.split()
    print(i.split())

['Who', 'is', 'the', 'pm', 'of', 'India?']
['What', 'is', 'the', 'capital', 'of', 'india?']
['No.', 'of', 'states', 'in', 'india?']
['Who', 'is', 'the', 'captain', 'of', 'ICT']
```

In [ ]: ▶

In [ ]: ▶

