

```
In [1]: a=[1,2,3,'acting']  
print(type(a))  
print(len(a))
```

```
<class 'list'>  
4
```

```
In [2]: print(a[2])
```

```
3
```

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

```
acting
```

```
In [4]: b=[1.5,'vijay',5,'*']  
print(type(b))  
print(len(a))
```

```
<class 'list'>  
4
```

```
In [5]: print(a[0])
```

```
1
```

```
In [6]: print(b[0])
```

```
1.5
```

```
In [7]: print(b[3])
```

```
*
```

```
In [8]: c=[]  
print(type(c))
```

```
<class 'list'>
```

```
In [9]: c.append(6)  
print(c)
```

```
[6]
```

```
In [10]: c.append('vicky',9)  
print(c)
```

```
-----  
TypeError                                Traceback (most recent call last)  
~\AppData\Local\Temp\ipykernel_5052\4228760211.py in <module>  
----> 1 c.append('vicky',9)  
      2 print(c)  
  
TypeError: list.append() takes exactly one argument (2 given)
```

```
In [20]: c=['vicky',90]  
a=c  
print(a)
```

```
['vicky', 90]
```

```
In [12]: c.append(78)  
print(c)
```

```
['vicky', 90, 78]
```

```
In [13]: print(len(c)[2])
```

```
-----
TypeError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_5052\2573366952.py in <module>
----> 1 print(len(c)[2])

TypeError: 'int' object is not subscriptable
```

```
In [14]: print(len(c),[2])
```

```
3 [2]
```

```
In [15]: print(len(c),c[2])
```

```
3 78
```

```
In [16]: print(len(c)[2])
```

```
-----
TypeError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_5052\2573366952.py in <module>
----> 1 print(len(c)[2])

TypeError: 'int' object is not subscriptable
```

```
In [17]: c.append('=')
print(c)
```

```
['vicky', 90, 78, '=']
```

```
In [18]: c.append(=)
print(c)
```

```
File "C:\Users\DGVC\AppData\Local\Temp\ipykernel_5052\4136784967.py", line 1
    c.append(=)
             ^
SyntaxError: invalid syntax
```

```
In [19]: print(type(c))
print(len(c))
```

```
<class 'list'>
4
```

```
In [22]: poplist=[]
print(len(poplist))
poplist.append(2)
poplist.append('comali')
poplist.append(True)
print(type(poplist))
print(len(poplist))
print(poplist)
print(poplist[2])
print(len(poplist[1]))
```

```
0
<class 'list'>
3
[2, 'comali', True]
True
6
```

```
In [32]: d =[45,'ak']
o=d
```

```
print(o)
```

```
[45, 'ak']
```

```
In [35]: c=poplist + d  
print(c)
```

```
-----  
TypeError                                Traceback (most recent call last)  
~\AppData\Local\Temp\ipykernel_5052\3998042875.py in <module>  
----> 1 c=poplist + d  
      2 print(c)  
  
TypeError: unsupported operand type(s) for +: 'type' and 'list'
```

```
In [36]: c=a+b  
print(c)  
  
['vicky', 90, 45, 'ak']
```

```
In [37]: for i in c:  
        print(i)
```

```
vicky  
90  
45  
ak
```

```
In [38]: c.insert(1, 'welcome')  
print(c)  
  
['vicky', 'welcome', 90, 45, 'ak']
```

```
In [39]: c.pop()  
print(c)  
  
['vicky', 'welcome', 90, 45]
```

```
In [40]: c.pop(2)  
print(c)  
  
['vicky', 'welcome', 45]
```

```
In [41]: c.extend(a)  
print(c)  
  
['vicky', 'welcome', 45, 'vicky', 90]
```

```
In [42]: for i in range(5):  
        print(i)
```

```
0  
1  
2  
3  
4
```

```
In [43]: for i in range(5):  
        print(i*i)
```

```
0  
1  
4  
9  
16
```

```
In [44]: for i in a:  
        print(i)
```

```
vicky  
90
```

```
In [45]: for i in a:  
        print(i,a.index(i))
```

```
vicky 0  
90 1
```

```
In [46]: i=0  
while i<len(a):  
    print(a[i])  
    i=i+1  
print(a)
```

```
vicky  
90  
['vicky', 90]
```

```
In [47]: a=[2,'hari',True]  
print(a)
```

```
[2, 'hari', True]
```

```
In [56]: s1={'tea','boost','milk','jd'}  
print(s1)
```

```
{'milk', 'jd', 'boost', 'tea'}
```

```
In [58]: s2={'ak','jd','vj','milk'}  
print(s2)
```

```
{'ak', 'jd', 'milk', 'vj'}
```

```
In [57]: print(s1.union(s2))
```

```
{'boost', 'tea', 'ak', 'vj', 'jd', 'milk'}
```

```
In [51]:
```

```
-----  
AttributeError                                Traceback (most recent call last)  
~\AppData\Local\Temp\ipykernel_5052\3803344749.py in <module>  
----> 1 s2.append('milk')  
      2 print(s2)  
  
AttributeError: 'set' object has no attribute 'append'
```

```
In [59]: print(s1.intersection(s2))
```

```
{'jd', 'milk'}
```

```
In [55]: print(s1.difference(s2))
```

```
-----  
AttributeError                                Traceback (most recent call last)  
~\AppData\Local\Temp\ipykernel_5052\3305717712.py in <module>  
----> 1 print(s1.difference(s2))  
  
AttributeError: 'set' object has no attribute 'difference'
```

```
In [60]: print(s1.difference(s2))
```

```
{'boost', 'tea'}
```

```
In [62]: print(s2.difference(s1))
```

```
{'ak', 'vj'}
```

```
In [64]: t1=('ak','dj','dsp')
print(t1)
print(type(t1))
```

```
('ak', 'dj', 'dsp')
<class 'tuple'>
```

```
In [65]: print(t1[2])
```

```
dsp
```

```
In [66]: t2=(10)
t3=(10,)
print(type(t2))
print(type(t3))
```

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

```
In [67]: t4=tuple(("100","bala","rock"))
print(t4)
print(type(t4))
```

```
('100', 'bala', 'rock')
<class 'tuple'>
```

```
In [ ]:
```