

In []:

In []:

In []:

List

In []:

In [4]: l=[]
l

Out[4]: []

In [67]: l1=list()
l1

Out[67]: []

In [66]: type(l)

Out[66]: list

In [65]: len(l)

Out[65]: 8

In [64]: len(l1)

Out[64]: 6

In []:

List Function

In [61]: l

Out[61]: [20, 30, 40, 50, 20, 30, 40, 50]

In [16]: l.append(10)

In [62]: l

Out[62]: [20, 30, 40, 50, 20, 30, 40, 50]

In [63]: l.remove(10,10)

```

-----
TypeError                                Traceback (most recent call last)
Cell In[63], line 1
----> 1 l.remove(10,10)

TypeError: list.remove() takes exactly one argument (2 given)

```

In [60]: l

Out[60]: [20, 30, 40, 50, 20, 30, 40, 50]

In [59]: l.remove(10)

```

-----
ValueError                                Traceback (most recent call last)
Cell In[59], line 1
----> 1 l.remove(10)

ValueError: list.remove(x): x not in list

```

In []:

In [58]: l

Out[58]: [20, 30, 40, 50, 20, 30, 40, 50]

In [55]: l.append(20)
l.append(30)

```
l.append(40)
l.append(50)
l
```

Out[55]: [20, 30, 40, 50, 20, 30, 40, 50]

In [56]: len(l)

Out[56]: 8

In [57]: l1

Out[57]: [True, (1+2j), 2.3, True, '10', (1+2j)]

```
In [52]: l1.append(2.3)
l1.append(True)
l1.append('10')
l1.append(1+2j)
l1
```

Out[52]: [True, (1+2j), 2.3, True, '10', (1+2j)]

In [15]: l1

Out[15]: [2.3, True, '10', (1+2j)]

In [16]: l

Out[16]: [20, 30, 40, 50]

```
In [17]: l1.append(2.3)
l1
```

Out[17]: [2.3, True, '10', (1+2j), 2.3]

In [18]: l2

```
-----
NameError                                Traceback (most recent call last)
Cell In[18], line 1
----> 1 l2

NameError: name 'l2' is not defined
```

In [19]: l2=l1.copy()

In [20]: l2

Out[20]: [2.3, True, '10', (1+2j), 2.3]

In [21]: l1

Out[21]: [2.3, True, '10', (1+2j), 2.3]

In [22]: l1==l2

Out[22]: True

In [23]: l

Out[23]: [20, 30, 40, 50]

In [24]: l==l2

Out[24]: False

In [25]: l2==l1

Out[25]: True

In [26]: l2

Out[26]: [2.3, True, '10', (1+2j), 2.3]

In []: l2.clear()

In [27]: l2

Out[27]: [2.3, True, '10', (1+2j), 2.3]

In []: len(l2)

In [28]: l2.append(50)
l2.append(8.9)
l2.append('hi')
l2.append(False)
l2.append(1+2j)
l2

Out[28]: [2.3, True, '10', (1+2j), 2.3, 50, 8.9, 'hi', False, (1+2j)]

In [50]: print(l)
print(l1)
print(l2)

[20, 30, 40, 50]
[True, (1+2j)]
[2.3, True, '10', (1+2j), 2.3, 50, 8.9, 'hi', False, (1+2j)]

In []:

In [51]: l

Out[51]: [20, 30, 40, 50]

In [29]: l[:]

Out[29]: [20, 30, 40, 50]

In [30]: l[3]

Out[30]: 50

In []: l1

In [31]: l1[2:]

Out[31]: ['10', (1+2j), 2.3]

In []: l1[:4]

In []:

In []: l2

In [32]: l2[:5]

Out[32]: [2.3, True, '10', (1+2j), 2.3]

In []: l2[:-2]

In [33]: l2[-4:]

Out[33]: [8.9, 'hi', False, (1+2j)]

In []:

In [34]: l

Out[34]: [20, 30, 40, 50]

In []: l[:-2]

In [35]: l[-4:-2]

Out[35]: [20, 30]

In []:

In [36]: l1

Out[36]: [2.3, True, '10', (1+2j), 2.3]

In []: l1[:-4]

```
In [37]: l1[:2]

Out[37]: [2.3, True]

In [ ]:

In [38]: l2

Out[38]: [2.3, True, '10', (1+2j), 2.3, 50, 8.9, 'hi', False, (1+2j)]

In [ ]: l2[:4]

In [39]: l2[-2:-6]

Out[39]: []

In [ ]: l2[-1:]

In [ ]:

In [ ]: l1

In [40]: l1.count(l1)

Out[40]: 0

In [ ]: l1.count(2.3)

In [41]: l1.count(.)

Cell In[41], line 1
      l1.count(.)
            ^
SyntaxError: invalid syntax

In [ ]:

In [42]: l1

Out[42]: [2.3, True, '10', (1+2j), 2.3]

In [ ]: l1.index(True)

In [ ]:

In [44]: l1

Out[44]: [True, '10', (1+2j), 2.3]

In [45]: l1.remove(2.3)

In [46]: l1

Out[46]: [True, '10', (1+2j)]

In [ ]: l1

In [47]: l1.remove('10')

In [3]: l1

-----
NameError                                Traceback (most recent call last)
Cell In[3], line 1
----> 1 l1

NameError: name 'l1' is not defined

In [ ]:

In [ ]: l1.append([1,2,3])

In [48]: l1

Out[48]: [True, (1+2j)]

In [ ]:
```

```
In [49]: l1
l1

Out[49]: [True, (1+2j)]

In [ ]:
```

list completed

```
In [ ]:
```

```
In [12]: l1=([10,20,30,40,50,60,70])
l1

Out[12]: [10, 20, 30, 40, 50, 60, 70]

In [2]: len(l1)

Out[2]: 7

In [14]: l1.append(['hi',80,90])
l1

Out[14]: [10, 20, 30, 40, 50, 60, 70, ['hi', 80, 90]]

In [8]: l1

Out[8]: (10, 20, 30, 40, 50, 60, 70)

In [15]: l1

Out[15]: [10, 20, 30, 40, 50, 60, 70, ['hi', 80, 90]]
```

pop function

if it is used then selected value is removed

```
In [16]: l1.pop(4)

Out[16]: 50

In [18]: l1.pop(6)

Out[18]: ['hi', 80, 90]

In [ ]:
```

```
In [19]: l1

Out[19]: [10, 20, 30, 40, 60, 70]

In [ ]:
```

insert function

it used to insert element at given index it place element at back og given index

```
In [ ]:
```

```
In [20]: l1.insert(1)

-----
TypeError                                Traceback (most recent call last)
Cell In[20], line 1
----> 1 l1.insert(1)

TypeError: insert expected 2 arguments, got 1

In [22]: l1.insert(4,50)
l1
```

```
Out[22]: [10, 20, 30, 40, 50, 50, 60, 70]
```

```
In [ ]:
```

reverse function

```
In [24]: l1
```

```
Out[24]: [10, 20, 30, 40, 50, 50, 60, 70]
```

```
In [25]: l1.reverse()  
l1
```

```
Out[25]: [70, 60, 50, 50, 40, 30, 20, 10]
```

```
In [26]: l1
```

```
Out[26]: [70, 60, 50, 50, 40, 30, 20, 10]
```

```
In [ ]:
```

sort function

```
In [27]: l3=[100,60,110,20,90,60]  
l3
```

```
Out[27]: [100, 60, 110, 20, 90, 60]
```

```
In [28]: l3.sort()  
l3
```

```
Out[28]: [20, 60, 60, 90, 100, 110]
```

```
In [29]: l3.sort(reverse=True)  
l3
```

```
Out[29]: [110, 100, 90, 60, 60, 20]
```

```
In [ ]:
```

```
In [32]: l4=[10+6j,82+42j, 42+6j]  
l4
```

```
Out[32]: [(10+6j), (82+42j), (42+6j)]
```

```
In [34]: l4.sort()
```

```
-----  
TypeError                                Traceback (most recent call last)  
Cell In[34], line 1  
----> 1 l4.sort()  
  
TypeError: '<' not supported between instances of 'complex' and 'complex'
```

```
In [ ]:
```

```
In [38]: l5=['q','z','t','i','y']
```

```
In [39]: l5
```

```
Out[39]: ['q', 'z', 't', 'i', 'y']
```

```
In [40]: l5.sort()
```

```
In [41]: l5
```

```
Out[41]: ['i', 'q', 't', 'y', 'z']
```

```
In [ ]:
```

```
In [43]: l5.sort(reverse=True)  
l5
```

```
Out[43]: ['z', 'y', 't', 'q', 'i']
```

```
In [ ]: 
```

```
In [44]: l
```

```
-----
NameError                                Traceback (most recent call last)
Cell In[44], line 1
----> 1 l

NameError: name 'l' is not defined
```

```
In [45]: l1
```

```
Out[45]: [70, 60, 50, 50, 40, 30, 20, 10]
```

```
In [46]: l2
```

```
-----
NameError                                Traceback (most recent call last)
Cell In[46], line 1
----> 1 l2

NameError: name 'l2' is not defined
```

```
In [47]: l3
```

```
Out[47]: [110, 100, 90, 60, 60, 20]
```

```
In [48]: l4
```

```
Out[48]: [(10+6j), (82+42j), (42+6j)]
```

```
In [49]: l5
```

```
Out[49]: ['z', 'y', 't', 'q', 'i']
```

```
In [50]: l1
```

```
Out[50]: [70, 60, 50, 50, 40, 30, 20, 10]
```

```
In [51]: l1.reverse()
l1
```

```
Out[51]: [10, 20, 30, 40, 50, 50, 60, 70]
```

```
In [52]: l1.append('nit')
```

```
In [53]: l1
```

```
Out[53]: [10, 20, 30, 40, 50, 50, 60, 70, 'nit']
```

```
In [54]: print(l1[8][0])
print(l1[8][1])
print(l1[8][2])
```

```
n
i
t
```

```
In [55]: l3
```

```
Out[55]: [110, 100, 90, 60, 60, 20]
```

```
In [56]: del l3
```

```
In [57]: l3
```

```
-----
NameError                                Traceback (most recent call last)
Cell In[57], line 1
----> 1 l3

NameError: name 'l3' is not defined
```

```
In [58]: l
```

```
-----
NameError                                Traceback (most recent call last)
Cell In[58], line 1
----> 1 l

NameError: name 'l' is not defined
```

```
In [59]: l1
```

```
Out[59]: [10, 20, 30, 40, 50, 50, 60, 70, 'nit']
```

```
In [60]: 70 in l1
```

```
Out[60]: True
```

```
In [62]: 500 in l1
```

```
Out[62]: False
```

```
In [66]: for i in l1:
          print(i)
```

```
10
20
30
40
50
50
60
70
nit
```

```
In [68]: for i in l4:
          print(i)
```

```
(10+6j)
(82+42j)
(42+6j)
```

```
In [70]: for i in enumerate(l1):
          print(i)
```

```
(0, 10)
(1, 20)
(2, 30)
(3, 40)
(4, 50)
(5, 50)
(6, 60)
(7, 70)
(8, 'nit')
```

```
In [ ]:

All() & Any()
```

```
In [71]: l1
```

```
Out[71]: [10, 20, 30, 40, 50, 50, 60, 70, 'nit']
```

```
In [72]: all(l1)
```

```
Out[72]: True
```

```
In [73]: any(l1)
```

```
Out[73]: True
```

```
In [74]: l1.append(0)
          l1
```

```
Out[74]: [10, 20, 30, 40, 50, 50, 60, 70, 'nit', 0]
```

```
In [75]: all(l1
             )
```

```
Out[75]: False
```

```
In [76]: any(l1)
```

```
Out[76]: True
```



```
In [77]: l1
```

```
Out[77]: [10, 20, 30, 40, 50, 50, 60, 70, 'nit', 0]
```

```
In [78]: l4
```

```
Out[78]: [(10+6j), (82+42j), (42+6j)]
```

```
In [79]: all(l4)
```

```
Out[79]: True
```

```
In [80]: any(l4)
```

```
Out[80]: True
```

```
In [ ]:
```

Loading [MathJax]/jax/output/CommonHTML/fonts/TeX/fontdata.js