

1.Create List

```
In [1]: #1.1 by brackets
```

```
In [2]: list1 = [1,2,3,4]
```

```
In [3]: print(list1)  
[1, 2, 3, 4]
```

```
In [4]: list2 = [1,2.5,3+5j,"ahmed"]
```

```
In [5]: print(list2)  
[1, 2.5, (3+5j), 'ahmed']
```

```
In [6]: #1.2 By Constructor
```

```
In [7]: list3 = list((1,2,3,"hello world"))
```

```
In [8]: print(list3)  
[1, 2, 3, 'hello world']
```

2.add Item

```
In [10]: list4 = [1,2,3,5]
```

```
In [11]: #1.add new item in last position
```

```
In [12]: list4.append(6)
```

```
In [13]: print(list4)  
[1, 2, 3, 5, 6]
```

```
In [14]: #2.add new item in index position
```

```
In [15]: list4.insert(3,4)
```

```
In [16]: print(list4)  
[1, 2, 3, 4, 5, 6]
```

```
In [17]: #3.add iterable
```

```
In [18]: list5 = [7,8,9,10]
```

```
In [19]: list4.extend(list5)
```

```
In [20]: print(list4)
```

```
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

3.remove item

```
In [21]: #3.1 remove first item which match this value
```

```
In [22]: list6 = [ 1,2,3,4,1,2,3,4]
```

```
In [23]: list6.remove(1)
```

```
In [24]: print(list6)
```

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

```
In [25]: #3.2 remove item in certain index
```

```
In [26]: list6.pop(3)
```

```
Out[26]: 1
```

```
In [27]: print(list6)
```

```
[2, 3, 4, 2, 3, 4]
```

4.information and access

```
In [ ]: #1.access
```

```
In [28]: x = list6[0]
```

```
In [29]: y = list6[1]
```

```
In [30]: z = x + y
```

In [31]: `print(z)`

5

In [32]: `#2.update`

In [33]: `list6[2] = 100`

In [34]: `print(list6)`

[2, 3, 100, 2, 3, 4]

In [37]: *#3.write in index out of range*

In [36]: `list6[6] = 1000`

```
-----  
IndexError                                Traceback (most recent call last)  
<ipython-input-36-7a0975245270> in <module>()  
----> 1 list6[6] = 1000  
  
IndexError: list assignment index out of range
```

In [38]: *#4.get size or length of the list*

In [39]: `print(len(list6))`

6

In [40]: *#5. number of copies of this value*

In [42]: `list6.count(3)`

Out[42]: 2

In []:

General Functions

In [43]: `listWithDifferentTypes = [1,2,3,4,5,"ahmed","khalifa","zzz"]`

In [44]: `listOfString = ["ahmed","khalifa","zzz"]`

In [45]: `listOfNumber = [1,2,3,4,5]`

In []:

In []:

In []:

In []:

In []: