

1 List

1. List Defining

```
arr = list()

or,

arr = []

or,

arr = [1,2,3]

or,

s=input()
list_1=list(map(int, s.split()))
```

2. operations or methods

- (a) `append(x)` : Adds a single element `x` to the end of a list.

```
arr = list()

or,

arr = []

arr.append(1)
arr.append(2)
arr.append(3)

then should print arr =[1,2,3]
```

(b) `extend(L)`: Merges another list L to the end.

```
a =[1,2,3]
b = [4,5]
c=a.extend(b)
then c=[1,2,3,4,5]
```

(c) `insert(i,x)`: Inserts element x at position i.

```
a =[1,2,3]
b = [5,6]
a.extend(b)
then a=[1,2,3,5,6]
a.insert(3,4)
then a=[1,2,3,4,5,6]
```

(d) `remove(x)`: Removes the first occurrence of element x.

```
a=[1,2,3,4,5,6]
a.remove(3)
then a=[1,2,3,5,6]
```

- (e) `pop()`: Removes the last element of a list. If an argument is passed, that index item is popped out.

```
a=[1,2,3,4,5,6]
a.pop()

then a=[1,2,3,4,5]
```

- (f) `index(x)`: Returns the first index of a value in the list. Throws an error if it's not found.

```
a=[1,2,3,4,5,6]

i=a.index(3)

then i=2
```

- (g) `count(x)`: Counts the number of occurrences of an element x.

```
a=[1,2,3,2,5,2]

c=a.count(2)

then c=3
```

- (h) `sort()`: Sorts the list.

```
a=[1,2,3,2,5,2]

a.sort()

then a=[1,2,2,2,3,5]
```

(i) `reverse()`: Reverses the list.

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

```
a.reverse()
```

```
then a=[4,3,2,1]
```