

# List Part 1



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# Agenda

- **List**
- **How to create list object?**
- **Built in methods**
- **How to access list element?**
- **Concept of Negative index**
- **How to add element in the list?**
- **Packing and Unpacking**
- **How to delete element in the list?**
- **How to edit an element of the list**



# list

## ❖ What is list ?

- **list is a class**
- **list is an iterable sequence**
- **list is mutable(changeable)**
- **list is growable**
- **list can store heterogeneous data**
- **list elements are indexed**

# How to create list object?

```
l1 = [] # create Empty object of list
```

```
l2 = [10,20,30,40,50]
```

```
l3 = list() # create Empty object of list
```

# Built in methods

- 1. len()** → returns length of specified iterable
- 2. min()** → returns min value element
- 3. max()** → returns max value element
- 4. sum()** → returns sum of elements
- 5. sorted()** → returns a sorted list of elements



# How to access list element?

```
12 = [10, 20, 30, 40, 50]
```

```
14 = [50, 84, 10, 46, 90, 20, 15]
```

```
15 = ['Hello', 'Tasin', 'Coder', "Hi", 12, 54]
```

```
print(12[2])
```

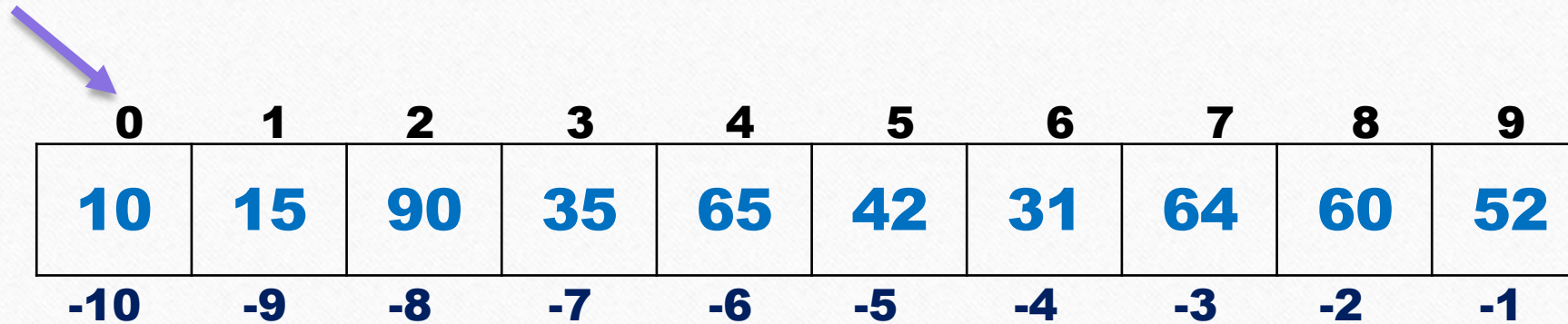
```
print(12, 14, 15, sep='\n')
```

```
for _ in 15:
```

```
    print(_)
```

# Concept of Negative index

**Positive**



The diagram illustrates the concept of negative indices in an array. It shows a horizontal row of 10 boxes, each containing a positive value. Above each box is a positive index from 0 to 9. Below each box is a corresponding negative index from -10 to -1. A purple arrow points from the word 'Positive' to the index 0. Another purple arrow points from the word 'Negative' to the index -6.

0	1	2	3	4	5	6	7	8	9
10	15	90	35	65	42	31	64	60	52
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1

**Negative**

# How to add element in the list?

- There are two standard ways to add elements in the list

I. **append()**

II. **insert()**

**Attributes**

```
graph LR; A[Attributes] --> B[append()]; A --> C[insert()];
```

- Class is a group of variables and functions
- Functions are called attributes



# Packing and Unpacking

- **Unpacking :-** Number of variables in the left hand side must be same as the number of elements in the list.

# How to delete element in the list?

# **How to edit an element of the list**