LISTS :

Agenda :

- Intro to list
- Indexing
- Updating a list
- Iteration in a list
- Questn on list

★ Back to school days :

i) Same register for all students
ii) Different registers for different students

Advantages :

→ All data at one place
→ Less space required for storing data
→ Easy to look

→ Easy to perform operations

★ **Sachin's data :**

→ Sachin played 463 matches

runs1 = 90
runs 2 = 100
.
.
.
runs 463 = 200

avg = $\frac{\text{run1} + \cdots + \text{runs 463}}{463}$

⇒ **Data Structure :**

- Lists
- Tuples
- Dictionaries
- Sets

⇒ Heterogenous : Can store different Datatypes
⇒ Ordered : Data is stored in a sequence

⇒ Defining a list :

```
l = [ ]
```

use square brackets.

★ Indexing :

⇒ runs = [100 (0), 99 (1), 0 (2), 99 (3), 200 (4), 99 (5), 50 (6)]

indexing is numbering of sequence of data
it starts from 0

⇒ len(runs) = 7

⇒ len → N - 1

Accessing a data :

→ runs [index] : o p is element at index

⇒ runs = [100 (0), 99 (1), 0 (2), 99 (3), 200 (4), 99 (5), 50 (6)]

⇒ runs[0] = 100

⇒ runs[1] = 99

⇒ runs[7] = 30

★ Negative Indexing :

⇒ runs = [100, 99, 0, 99, 200, 99, 30]

positive indexes: 0 1 2 3 4 5 6

negative indexes: -7 -6 -5 -4 -3 -2 -1

⇒ -ve indexing of 1st element (- len(runs))

⇒ 0 ⟶ - len(list)