Chapter 4
Lists and Tuples

Python Lists are containers to store a set of value of any datatype.

int() bool()

friends = ["Apple", "Akash", "Twinkle", 7, False]

str()

can store value of any datatype

Lists Indexing

A Lists can be indexed just like a string.

L1 = [7, 9, "Abhi"]

L1[0] => 7
L1[1] => 9
L1[70] => Error
L1[0:2] => [7,9] => List slicing

List Methods

Consider the following list:

L1 = [1, 8, 7, 2, 21, 15]

1. L1.sort() : updates the list to [1,2,7,8,15,21]
2. L1.reverse(): updates the list to [15,21,2,7,8,1]
3. L1.append(8): adds 8 at the end of the list
4. L1.insert(3,8): This will add 8 at 3 index.

5. L1.pop(2): Will delete element at index 2 and return its value

6. L1.remove(21): will remove 21 from the list.

Tuples in Python

A tuples is an immutable data type in python.
↓
cannot change

```
a = ()   # Empty tuple
a = (1,)  # Tuple with only one element needs a comma.
a = (1,7,2) # Tuple with more than one element.
```

Once defined a tuple elements cant be altered or manipulated.

Tuple methods

consider the following tuple:

```
a = (1,7,2)
```

1. a.count(1): a.count(1) will return number of times 1 occurs in a.

2. a.index(1): a.index(1) will return the index of first occurence of 1 in a.

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Chapter 4
Practice Set

Q.1 Write a program to store seven fruits in a list entered by the user.

Q.2 Write a program to accept marks of 6 students and display them in a stored manner.

Q.3 Check that a tuple cannot be changed in python.

Q.4 Write a program to sum a list with 4 numbers.

Q.5 Write a program to count the number of zeros in the following tuple:

a = (7, 0, 8, 0, 0, 9)