

Ch 4: Lists and Tuples.

List is a datatype that can store other datatypes.

elements = ['He', "Ar", None, True, 36]

stru NoneType parl int

elements[0] >> He len(elements) >> 5

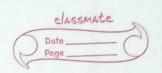
elements[0] = "Zn" => Now elements[0] is Zn not He.

list ("Python") = ['P', 'y', 't', 'h', 'o', 'n']

lists can also be sliced:print (elements [0:3]) => [zn', 'Ar', None]

some list functions:l = [43,34,21,92,11]

- i. l. sort () = [11,21,34,43,92] => list is arranged in ascending order.
- ii. l. reverse () = [11, 92, 21, 34, 43] => A list gets reversed
- iii · l. sort (reverse = True) => [92,43,34,21,11] => descending order.
- iv · len(l) ⇒ 5 (length of list)
- v. max (l) = 92 => Returns the max value from list.
- vi. min (l) = 11 => Returns the min value from list.



vii. l. append (6) = [43,34,21,92,11,6] => 6 is added to the end.

viii°· l· insert (3, 111) = [43, 34, 21, 111, 92, 11] ⇒ 111 value gets added to 3rd index

ix. l. remove (11) = [43,34,21,92] => 11 gets removed from list

* bopop () -> removes last element =

xi. lindex (43) = 0 -> (index of any element)

[more functions on internet]

Tuples-A tuple is a datatype in Python which can't be changed.

tp = (2, 4, 6) -> (class 'tuple')

tp[0] = 7 = Everor (This is the property of tuple) $tv = e = () \Rightarrow \text{empty tuple}$ $tp2 = (1,) \Rightarrow \text{tuple with single element}$

tp3=1,2,3 (class'tuple'> (no evror)

tuple() constructor

tu = tuple ("info") → takes one parameter print (tu) = ('i', 'n', 'f', 'o')



tv = (2,3,5,2,2,2) -> any number of elements can be added-even multiple times!

Mostly used methods:-

$$a = (2, 7, 7, 7, 3)$$

- i) a · count (7) = 3 => counts if number of times 7 comes.
- ii) a index (3) = 4 =) returns the index of 3.

Write a hython program that takes the age of 5 heaple as input and displays the oldest age & youngest age.

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