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NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Programming, Data Structures And **Algorithms Using Python (course)**



Course outline

How does an **NPTEL** online course work? ()

Week 1: Introduction ()

Week 1 Quiz ()

Week 2: Basics of Python ()

Week 2 Quiz

Week 2 **Programming Assignment** ()

Week 3: Lists. inductive

Online Test 1 Question 8

Due on 2020-12-01, 12:00 IST

Question 8

Write a Python function maxaggregate(1) that takes a list of pairs of the form (name, score) as argument, where name is a string and score is an integer. Each pair is to be interpreted as the score of the named player. For instance, an input of the form [('Kohli',73),('Ashwin',33),('Kohli',7),('Pujara',122), ('Ashwin',90)] represents two scores of 73 and 7 for Kohli, two scores of 33 and 90 for Ashwin and one score of 122 for Pujara. Your function should compute the players who have the highest aggregate score (aggegrate = total, so add up all scores for that name) and return the list of names of these players as a list, sorted in alphabetical order. If there is a single player, the list will contain a single name.

For instance, maxaggregate([('Kohli',73),('Ashwin',33),('Kohli',7), ('Pujara',122),('Ashwin',90)]) should return ['Ashwin'] because the aggregate score of Kolhi is 80, of Ashwin is 123 and of Pujara is 122, of which 123 is the highest.

Sample Test Cases

I	nput	Output
Test Case 1	<pre>maxaggregate([('Kohli',73),('Ashwin',33),</pre>	['Pujara']
Test Case 2	<pre>maxaggregate([('Kohli',73),('Ashwin',33), ('Kohli',7),('Pujara',142),('Ashwin',109)])</pre>	['Ashwin', 'Pujara']
Test Case 3	maxaggregate([('Kohli',73)])	['Kohli']

```
function
definitions,
sorting ()
```

Week 3 Programming Assignment ()

Week 4:
Sorting,
Tuples,
Dictionaries,
Passing
Functions,
List
Comprehension
()

Week 4 Quiz ()

Week 4 Programming Assignment ()

Week 5: Exception handling, input/output, file handling, string processing ()

Week 5 Programming Assignment ()

Week 6: Backtracking, scope, data structures; stacks, queues and heaps ()

Week 6 Quiz ()

```
['Ashwin',
Test
       maxaggregate([('Kohli',73),('Ashwin',33),
                                                              'Kohli',
Case 4
       ('Kohli',69),('Pujara',142),('Ashwin',109)])
                                                              'Pujara']
Test
       maxaggregate([('Kohli',73),('Ashwin',33),
                                                              ['Ashwin']
Case 5
      ('Kohli',7),('Pujara',122),('Ashwin',90)])
Test
       maxaggregate([('Kohli',73),('Ashwin',33),
                                                              ['Ashwin',
Case 6 ('Kohli',7),('Pujara',22),('Ashwin',47)])
                                                              'Kohli']
```

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Week 7: Classes, objects and user defined datatypes ()

Week 7 Quiz ()

Week 8: Dynamic programming, wrap-up ()

Week 8 Programming Assignment ()

Text
Transcripts ()

Books ()

Download Videos ()

Online Programming Test -Sample ()

Online Programming Test 1, 01 Dec 2020, 10:00-12:00 ()

Instructions (unit? unit=126&lesson=127)

- Online Test 1
 Question 1
 (/noc20_cs26/progassignment?
 name=131)
- Online Test 1
 Question 2
 (/noc20_cs26/progassignment?
 name=132)

- Online Test 1 Question 3 (/noc20_cs26/progassignment? name=134)
- Online Test 1 Question 4 (/noc20_cs26/progassignment? name=136)
- Online Test 1 Question 5 (/noc20_cs26/progassignment? name=137)
- Online Test 1 Question 6 (/noc20 cs26/progassignment? name=138)
- Online Test 1 Question 7 (/noc20_cs26/progassignment? name=139)
- Online Test 1 **Question 8** (/noc20_cs26/progassignment? name=140)

Online **Programming** Test 2, 01 Dec 2020, 20:00-22:00 ()

Online **Programming** Test 1, 09 Mar 2021, 10:00-12:00 ()

Online **Programming** Test 2, 09 Mar 2021, 20:00-22:00

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