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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 2 Question 8

Due on 2020-12-01, 22:00 IST

Question 8

Write a Python function `maxaverage(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 average score (average = total across all scores for that player divided by number of entries) 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, `maxaverage([('Kohli',73),('Ashwin',33),('Kohli',7),('Pujara',122),('Ashwin',90)])` should return `['Pujara']` because the average score of Kohli is 40 (80 divided by 2), of Ashwin is 61.5 (123 divided by 2) and of Pujara is 122 (122 divided by 1), of which 122 is the highest.

Sample Test Cases

Input		Output
Test Case 1	<code>maxaverage([('Kohli',73),('Ashwin',33),('Kohli',7),('Pujara',142),('Ashwin',90)])</code>	<code>['Pujara']</code>
Test Case 2	<code>maxaverage([('Kohli',73),('Ashwin',33),('Kohli',7),('Pujara',100),('Pujara',25),('Pujara',35),('Ashwin',109)])</code>	<code>['Ashwin']</code>

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 ()

Test Case 3	maxaverage([('Kohli',73)])	['Kohli']
Test Case 4	maxaverage([('Kohli',73),('Ashwin',33),('Kohli',69),('Pujara',102),('Pujara',40),('Ashwin',109)])	['Ashwin', 'Kohli', 'Pujara']
Test Case 5	maxaverage([('Kohli',73),('Ashwin',33),('Kohli',7),('Pujara',122),('Ashwin',90)])	['Pujara']
Test Case 6	maxaverage([('Kohli',73),('Ashwin',33),('Kohli',7),('Pujara',22),('Ashwin',47)])	['Ashwin', '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
()**

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

☐ Instructions
(unit?
unit=128&lesson=129)

☐ Online Test 2
Question 1

(/noc20_cs26/progassignment?
name=130)

☐ Online Test 2
Question 2
(/noc20_cs26/progassignment?
name=133)

☐ Online Test 2
Question 3
(/noc20_cs26/progassignment?
name=135)

☐ Online Test 2
Question 4
(/noc20_cs26/progassignment?
name=141)

☐ Online Test 2
Question 5
(/noc20_cs26/progassignment?
name=142)

☐ Online Test 2
Question 6
(/noc20_cs26/progassignment?
name=143)

☐ Online Test 2
Question 7
(/noc20_cs26/progassignment?
name=145)

☐ Online Test 2
Question 8
(/noc20_cs26/progassignment?
name=146)

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

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

