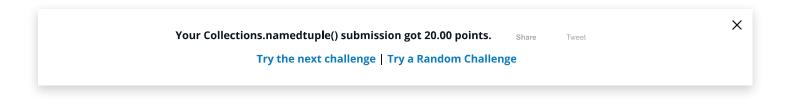
# Collections.namedtuple() ★





Editorial 🖰

collections.namedtuple()

Problem

Basically, namedtuples are easy to create, lightweight object types.

They turn tuples into convenient containers for simple tasks.

Submissions

With namedtuples, you don't have to use integer indices for accessing members of a tuple.

Leaderboard

#### Example

#### Code 01

```
>>> from collections import namedtuple
>>> Point = namedtuple('Point','x,y')
>>> pt1 = Point(1,2)
>>> pt2 = Point(3,4)
>>> dot_product = ( pt1.x * pt2.x ) +( pt1.y * pt2.y )
>>> print dot_product
11
```

# Code 02

```
>>> from collections import namedtuple
>>> Car = namedtuple('Car','Price Mileage Colour Class')
>>> xyz = Car(Price = 100000, Mileage = 30, Colour = 'Cyan', Class = 'Y')
>>> print xyz
Car(Price=100000, Mileage=30, Colour='Cyan', Class='Y')
>>> print xyz.Class
v
```

### Task

Dr. John Wesley has a spreadsheet containing a list of student's  $\emph{IDs}$ ,  $\emph{marks}$ ,  $\emph{class}$  and  $\emph{name}$ .

Your task is to help Dr. Wesley calculate the average marks of the students.

$$Average = rac{Sum \ of \ all \ marks}{Total \ Students}$$

## Note:

- 1. Columns can be in any order. IDs, marks, class and name can be written in any order in the spreadsheet.
- 2. Column names are ID, MARKS, CLASS and NAME. (The spelling and case type of these names won't change.)

#### **Input Format**

The first line contains an integer  $oldsymbol{N}$ , the total number of students.

The second line contains the names of the columns in any order.

The next  $m{N}$  lines contains the  $m{marks}$ ,  $m{IDs}$ ,  $m{name}$  and  $m{class}$ , under their respective column names.

# Constraints

```
0 < N \le 100
Output Format
Print the average marks of the list corrected to 2 decimal places.
Sample Input
TESTCASE 01
  5
                    NAME
                               CLASS
  ID
           MARKS
                     Raymond 7
  1
  2
           50
                     Steven 4
           91
                     Adrian 9
  3
           72
                     Stewart 5
  4
  5
           80
                     Peter
TESTCASE 02
  5
  MARKS
            CLASS
                      NAME
                                 ID
  92
                     Calum
  82
            5
                     Scott
                                2
  94
            2
                     Jason
                               3
            8
                     Glenn
                               4
  55
  82
                     Fergus
Sample Output
TESTCASE 01
  78.00
TESTCASE 02
  81.00
Explanation
TESTCASE 01
Average = (97 + 50 + 91 + 72 + 80)/5
Can you solve this challenge in 4 lines of code or less?
NOTE: There is no penalty for solutions that are correct but have more than 4 lines.
```

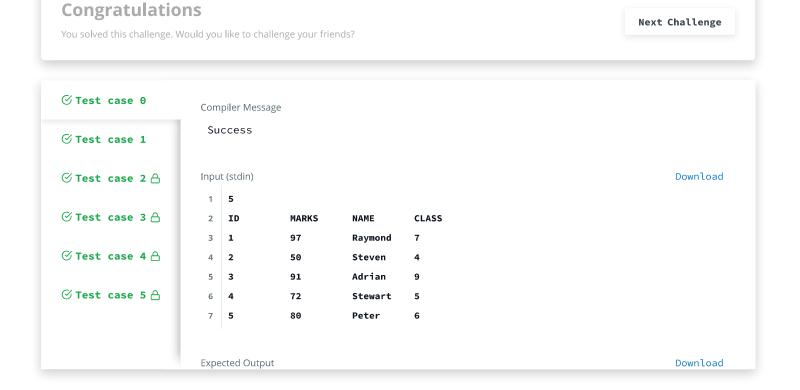
```
Change Theme
                                                                                    Python 3
1
    from collections import namedtuple
2
    import re
3
4
    if __name__ == '__main__':
5
        n = int(input())
6
7
        columns = ','.join(input().split())
8
9
        Student = namedtuple('Student', columns)
10
11
        students = []
12
```

```
13
            for _ in range(n):
 14
 15
                data = input().split()
 16
                 students.append(Student(*data))
 17
            marks = [int(getattr(s, 'MARKS')) for s in students]
 18
 19
            result = sum(marks) / len(marks)
 20
 21
            print('{:.2f}'.format(result))
 22
 23
                                                                                                                          Line: 7 Col: 40
oldsymbol{\uparrow} Upload Code as File oxedsymbol{\Box} Test against custom input
                                                                                                         Run Code
                                                                                                                          Submit Code
```

You have earned 20.00 points! 53/115 challenges solved.

46%





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