

SIT384 Cyber security analytics

Pass Task 3.1P: Process data from file

Task description:

You are given a student result data file (result.csv). It has columns:

ID: student id

Ass1 ~ Ass4: assignment scores (out of 100); weight of ass1, ass2, ass3 and ass4 is 5%, 15%, 5%, and 15%, respectively.

Exam: examination score (out of 120); weight is 60%.

Total: weighted total score (total = 5%*(ass1+ass3) + 15%*(ass2+ass4) + 60%*exam)

ID	Ass1	Ass2	Ass3	Ass4	Exam	Total
1	89.1	50	85	88.9	65	66
2	95.1	82.5	90.5	94.5	52	63
3	74.3	54.4	63	63.9	31	42
4	89.8	81.3	82	90.4	37	53
5	91.3	98.8	92.5	95.9	79	77
...

(The above data is for demonstration purposes only. Please download the full version of result.csv.)

Total score has been provided in the .csv. There is no need for you to re-calculate it.

Read students' result data from file result.csv, calculate and print:

- Average of ass1, ass2, ass3, ass4, exam and total column, respectively.
- Min of ass1, ass2, ass3, ass4, exam and total column, respectively.
- Max of ass1, ass2, ass3, ass4, exam and total column, respectively.
- The student info with the highest total (ID, ass1, ass2, ass3, ass4, exam and total column)

(Sample output as shown in the following figure is for demonstration purposes only.)

```
In [13]: runfile('C:/tmp/units/2020/SIT384-
units/2020/SIT384-2020-1/portfolio/week3')
ass1 average: 79.08241758241758
ass1 min: 50.0
ass1 max: 99.1

ass2 average: 72.01978021978024
ass2 min: 43.8
ass2 max: 100.0

ass3 average: 71.76373626373626
ass3 min: 0.0
ass3 max: 98.0

ass4 average: 83.70549450549453
ass4 min: 0.0
ass4 max: 100.0

exam average: 57.24175824175824
exam min: 0
exam max: 106
```

```
total average: 59.05494505494506
total min: 14
total max: 91
```

```
student with highest total:
```

	Ass1	Ass2	Ass3	Ass4	Exam	Total
ID						
84	93.6	100.0	96.0	100.0	106	91

```
In [14]: |
```

Submission:

Submit the following files to OnTrack:

1. Your program source code (e.g. task3-1.py)
2. A screen shot of your program running

Check the following things before submitting:

1. Add proper comments to your code