

Lab Week 2 - Basic Skills

Skills Needed to complete this Lab

- Assignment to a variable
- Convert to int and/or float
- Calculate values
- Get input with the input function
- Output results with the print function
- Use if, elif and else

Calculating Grades

This first lab will be used to calculate grades based on the weighting system for the CS101 Lab class. We won't worry about individual scores, but will ask the user for the grade from 0 - 100 for each of the weighted categories. The categories and weight are.

Category	Weight
Labs	0.7
Lab Exams	0.2
Attendance	0.1

To calculate the weighted grade, you multiply the grade for a category by the weight and the sum all of those results.

You should output the weighted grade as well as the letter grade. The letter grade breakdowns are

- [90, 100] - A
- [80, 90) - B
- [70, 80) - C
- [60, 70) - D
- [0, 60) - F

Example

```
Python 3.7.1 Shell
File Edit Shell Debug Options Window Help
RESTART: C:\Users\binghamk1-pc\Box\Course work\101L\Week 03\Solution\WeightedScoresSolution.py

**** Welcome to the LAB grade calculator! ****

Who are we calculating grades for? ==> Abe

Enter the Labs grade? ==> 90

Enter the EXAMS grade? ==> 72

Enter the Attendance grade? ==> 96

The weighted grade for Abe is 87.0
Abe has a letter grade of B

**** Thanks for using the Lab grade calculator ****
>>> |
```

Test your program with different values, and compare what the program gave with what you calculated by hand.

Adding to the program.

If the user enters a lab, exam or attendance score greater than 100 or less than zero, we want to warn them appropriately and change to an appropriate value. If they choose a lab score of 105 we want to warn them and change the lab score to 100. If they choose an exam of -2, warn the user and set it to zero. This should work for exams, attendance and lab both high and low, not just the examples given.

Example

```
Python 3.7.1 Shell
File Edit Shell Debug Options Window Help

**** Welcome to the LAB grade calculator! ****

Who are we calculating grades for? ==> Alice

Enter the Labs grade? ==> 105
The lab value should have been 100 or less. It has been changed to 100.

Enter the EXAMS grade? ==> -2
The exam value should have been zero or greater. It has been changed to zero

Enter the Attendance grade? ==> 62

The weighted grade for Alice is 76.2
Alice has a letter grade of C

**** Thanks for using the Lab grade calculator ****
>>> |
```

Grading and Turning In:

Turn in your program before the deadline.

1. Upload the screenshots of your code and the output (Make all the screenshots on word or pdf file.)
2. Upload the .py file, as other files will be ignored.