

CS118 Programming Assignment

Exam 3

First: A BIG HINT from our sponsor: If you create variables with hardcoded dummy values, you can complete the steps with more points but without the delay of developing the earlier code. Then delete the dummy variables and have the program generate the correct values for the input - thereby get the rest of the points.

Write a Python program that will:

[5 pts] Have a correct algorithm matched to code - the comments must match to code attempting to satisfy the algorithm

[1 pt] Collect a title string from the user

[1 pt] Obtain a **string** from the user which looks like a Python list of numbers (both integers and floats). An example run:

```
Please provide a Python list: [1, 2.3, 4, 5.67, 8, 9]
```

You may assume the user will provide you a list in the correct format

[10 pts] Convert that string into an actual Python list

[10 pts] Compute the average value of the list

[16 pts] Print the user-provided title string precisely centered in an 80-column shell window

[16 pts] Print the the list elements (or the user-provided list-like string) and the average in a table so that the list is indented precisely 5 spaces and that the average is always right-justified to column 70 and displayed to two decimal places. You may assume the average will never exceed 999999.99

Sample runs:

```
Title: My Python List Program Results
Please provide a Python list: [1, 2.3, 4.56, 7.8910, 11, 12.13]

                My Python List Program Results

    [1, 2.3, 4.56, 7.8910, 11, 12.13]                                6.48
```

Run #1

```
Title: Yet Another Set of Results from My Python List Program
Please provide a Python list: [15, 14, 13, 12, 11, 10, 9, 8, 7, 6]

                Yet Another Set of Results from My Python List Program

    [15, 14, 13, 12, 11, 10, 9, 8, 7, 6]                                10.50
```

Run #2