

Zelle 3e Chapter 2 Coding Assignment

General Instructions

My expectations for your work on coding assignment exercises will grow as we progress through the course. In addition to applying any new programming techniques that have been covered in the current chapter, I will be expecting you to follow all of the good programming practices that we have adopted in the preceding weeks. Here is a quick summary of good practices that we have covered so far:

- Include a single-line comment with name of program file.
- Include a single-line comment that describes the intent of the program.
- Place your highest-level code in a function named `main`.
- Include a final line of code in the program that executes the `main` function.
- Follow all PEP-8 Python coding style guidelines enforced by the PyCharm Editor. For example, place two blank lines between the code making up a function and the code surrounding that function.
- Choose names for your variables that are properly descriptive.
- Model your solution after the code that I demonstrate in the tutorial videos.
- Remember to test your program thoroughly before submitting your work.

Exercise 1

Create a program named `simple_sentence_builder`. This program will prompt the user for the five words that make up the sentence using the following prompt scheme:

```
Please enter the first word:  
Please enter the second word:  
...  
Please enter the fifth word:
```

As output, create a single-line printed sentence. Make sure that the sentence ends with a period ("."). Make sure that there is one space between adjacent words. Don't worry about proper capitalization of words within the sentence. Trust the user to enter the words already properly capitalized. Be sure that there are no line breaks within the sentence when printed. A sample output from this program will look like this:

```
Your brother has red hair.
```

Exercise 2

Create a program named `color_list_printer`. Simulate user input of a series of strings by creating a list structure in your Python program that holds a list of strings with this exact list of color names:

- Green
- Blue
- Orange
- Purple
- Red
- Sky-blue-pink

As output, print the list title “COLOR LIST” on a line by itself. Then skip a line. Then, print each color string in the list on a separate line.

Exercise 3

Create a program named `inches_to_centimeters`. The program should prompt the user for the measurement in inches:

Please enter the measurement in inches:

The program should convert inches to centimeters. See conversion factor details below.

As output, the program should print a single line with the result of the conversion. Sample output should look like this:

Measurement in centimeters: 5.08

Don't worry about controlling the number of decimal places in the output. We will learn that skill in a future chapter.

When testing, be sure to test your work against calculations made separately on a calculator. For the purposes of this program, assume that 1 inch equals 2.54 centimeters.

Tools

Use PyCharm to create and test all Python programs.

Submission Method

Follow the process that I demonstrated in the tutorial video on submitting your work. This involves:

- Locating the properly named directory associated with your project in the file system.
- Compressing that directory into a single .ZIP file using a utility program.
- Submitting the properly named zip file to the submission activity for this assignment.

File and Directory Naming

Please name your Python program files as instructed in each exercise. Please use the following naming scheme for naming your PyCharm project:

```
surname_givenname_exercises_zelle_3e_chapter_02
```

If this were my own project, I would name my PyCharm project as follows:

```
trainor_kevin_exercises_zelle_3e_chapter_02
```

Use a zip utility to create one zip file that contain the PyCharm project directory. The zip file should be named according to the following scheme:

```
surname_givenname_exercises_zelle_3e_chapter_02.zip
```

If this were my own project, I would name the zip file as follows:

```
trainor_kevin_exercises_zelle_3e_chapter_02.zip
```

Due By

Please submit this assignment by the date and time shown in the Weekly Schedule.

Last Revised

2021-01-18