

CS118 Homework Exercises

User I/O

A question posed after “For your benefit” is not required to be answered in your submission – it is there for you to consider as you learn this new material. Feel free to experiment with the code to determine the answer to the question!

Once you have completed all seven programs, place them all in a ZIP file and submit the ZIP file using the Blackboard submission link.

1. Write a Python program that will collect from the user his/her name and store it in the variable `name`. Display the variable's value using `print()` with the `%s` placeholder.
2. Write a Python program that will collect from the user his/her street address (as a string) – containing a house number and a street name - and store it in the variable `address`. Display the variable's value using `print()` with the `%s` placeholder.
3. Write a Python program that will collect a city (stored in the variable `city`) and state (stored in the variable `state`). Display both on a single line - separating them by a comma - using a single `print()` command and `%s` placeholders.
4. Write a Python program that combines the data collection of #2 and #3 and extends it so that the program also collects a zipcode (as an integer) and stores it in the variable `zipcode` – don't forget to use the `int()` function. Using a **single** `print()` command with appropriate placeholders and escape sequences, create a three-line output of the name, address, city, state, and zipcode (just like you would address an envelope).
5. Write a Python program that collects an age (as an integer) and stores it in the variable `age` – don't forget to use the `int()` function. Display the value of multiplying the age variable by six - this can be done by multiplying the `age` variable and storing it back into the same variable, or by multiplying the `age` variable when using it in the `print()` statement.
6. Make a copy of program #5 and modify it so that the user provides an income (as a floating point value – what typecast function will you need?) and that value is stored in the variable `income`. Still displaying the value multiplied by six, modify the `print()` statement to show the value two decimal places. *For your benefit: When the user enters numeric values, should s/he type in symbols such as dollar signs or commas (e.g. \$10,000.32)? How can you help the user enter the number correctly?*
7. Make a copy of program #6 and modify it so that the value is displayed to a width of 15 characters. Be sure to keep the output with two decimal places. *For your benefit: determine what happens if the user-provided name is shorter or longer than 10 characters. Also, what happens to the display of the `income` value if a large income (say, 10000000000) is entered?*