Homework 1

1. Download the Python file Homework1-Exercises.py
2. For code answers write your lines of code under each instructional comment.
3. Save the editor as yourname\_cs110\_hw1.py and submit it to Canvas.
4. For each exercise take a screenshot of the output and name the file “yourname\_cs110\_hw1\_task1" and " yourname\_cs110\_hw1\_task2”, etc. then submit it to Canvas.
5. For the written answers, write them on this page and submit this as: “yourname\_cs110\_hw1\_written”

Exercises

1)

Print the number 10 and the string "10".

Use the type() function to check the type of both.

**What are the different types of 10 and "10"?**

Answer:

2)

Add two integers 5 and 10, and print the result.

Concatenate two strings '5' and '10', and print the result.

**What is the difference between adding integers and concatenating strings?**

Answer:

3)

Convert the string '100' into an integer and add 50 to it.

Convert the integer 200 into a string and concatenate it with ' is the same as 2x100.'.

**What happens if you try to convert the string 'hello' to an integer?**

Answer:

4)

Assign the value 25 to a variable called age.

Print the value of age.

Reassign age to a new value of 'twenty-five' (a string).

Print the new value and check its type.

**How does Python handle changes in variable types?**

Answer:

5)

Assign values to three variables a, b, and c in a single line using tuple assignment.

Print them in a single line, separated by commas.

Print them with custom formatting using the format() method, where a is left-aligned in 10 spaces and b and c are right-aligned in 10 spaces.

**How does tuple assignment work?**  
Answer:

6)

Prompt the user to enter their name.

Use \n to print a greeting on two lines.

Additionally, use \t to print their name indented with a tab.

**How do control codes like \n and \t change the output formatting?**

Answer:

7)

Write a program that asks the user to input two numbers. Add these numbers together and print the result. Make sure to convert the input from strings to integers.

**What happens if the user enters a decimal number instead of an integer?**

Answer: