

Homework #4

Due: 10/24/2020, 9:00 pm

Create a new Python script file and name it *yourlastname_homework4.py*, where *yourlastname* is your last name. Save your file in your homework folder on your computer (a folder that you can easily find). I should be able to run your complete code without errors. When finished, upload your file on Google Classroom using Homework 4 assignment link.

Questions/Tasks:

- For this homework, please, avoid using the IF statements even if you know how to do that.
- Use f-strings approach when printing your output

Task 1

Ask the user of your code (the person who runs your program) to enter two numbers between 0 and 10 (let's call them A and B). Implement proper error handling with the while loop and ask for user input until a correct input is entered (see class notes if you forgot how to do it). Hint: the input value must be a string that can be converted to a float.

Task 2

Calculate and display $A * B$, using f-strings. The output should look like this, for example: "The product of 3 and 8 is 24" (if A is 3, and B is 8).

Task 3

Examine if A is greater than B. Once again use f-strings. The output should look like this, for example: "3 > 8 is False" (the True or False should be a Boolean value based on the comparison).

Task 4

Using the while loop, and f-strings print the square and cube of all numbers between 1 and 10 (included). Your output should look like this:
"The square of 1 is 1. The cube of 1 is 1."
"The square of 2 is 4. The cube of 2 is 8."
And so on all the way to 10.

Task 5

Ask the user for their favorite month of the year, favorite number, and favorite animal. Create a passcode that is a concatenation of the three strings, for example "may4cat" (hint: try adding your strings together). Using the while loop, ask the user to enter the correct passcode. The user should be allowed to proceed only when the correct passcode is entered.

Task 6

Similar to task 1, ask the user to enter two integers. This time, however, also ask the user to calculate the product of the two integers. The user has three attempts to give a correct answer. If the correct answer is not given the program terminates providing a correct answer to the user. Program requirements:

- Do not use IF statements.
- Implement error handling for all user input (initial numbers and the product).
- Use the while loop for getting the correct initial input.
- Use the while loop for getting the correct solution (also remember the maximum of three attempts).