Python Lab 1.1: Variables and Types

Recall that Python supports multiple "data types" among them strings, floats and integers. It is important to note that the data type of a variable matters!

Consider the program in `lab1_1.py` in the text editor at top-right. At first glance, it looks like it

1. prompts the user for two inputs, `x` and `y`,
2. adds `x` and `y`, storing the sum in `z`, and
3. prints `z`.

But let's look more closely.

Execute your program by typing: `python lab1_1.py` in the terminal window at bottom-right, followed by Enter.

- When prompted for `x`, input `1`, followed by Enter.
- When prompted for `y`, again input `1`, followed by Enter.

How curious!

- Python thinks that 1+1=11

{% next %}

Not what you expected!

Contrary to what this program thinks, 1 plus 1 does not equal 11! The sum should, of course, equal 2.

Modify `lab1_1.py` in the text editor at top-right in such a way that the program correctly outputs the sum of `x` and `y`.

{% spoiler "Hint 1" %}

Try to convert your x and y inputs into a numeric data type.

{% endspoiler %}

If you need extra help ... {% spoiler "Hint 2" %}

Consider using the float function, so your program can add floating point numbers as well as integers!

{% endspoiler %}

{% next %}

If you want extra help... here is the solution:

{% spoiler "Solution" %}

```
z = float(x) + float(y)
```

{% endspoiler %}

Execute your program

Provide the value 1 for x, and 1 for y

Remember in order to execute your code you type in the terminal:

```
python lab1_1.py
```

Make sure that the output is 2.0!

{% next %}

Check Your Code

Execute the below to evaluate the correctness of your code using `check50`, but be sure to test it yourself before that...

```
check50 mkotsovoulou/ods6001a/main/labs/lab1_1
```

Execute the below to evaluate the style of your code using `style50`.

```
style50 lab1_1.py
```

{% next %}

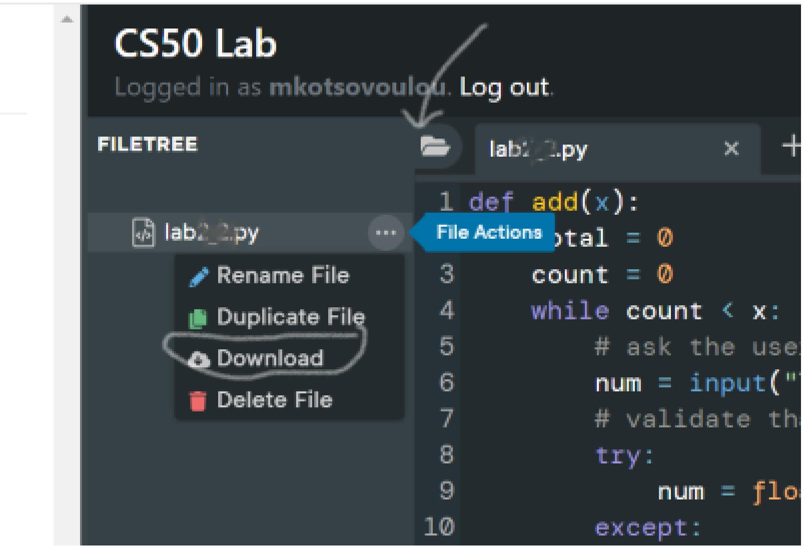
Submit your code

Execute the command below, logging in with your `GitHub username` and `Personal Access Token` when prompted. For security, you'll see asterisks (`*`) instead of the actual characters in your token.

If you do not have generated a Personal Access ToKen follow the instructions: https://docs.github.com/en/authentication/keeping-your-account-and-data-secure/creating-a-personal-access-token

```
submit50 mkotsovoulou/ods6001a/main/labs/lab1_1
```

You can re-submit your solution as many times as you want. When you are happy with your solution, download the code and upload it to Canvas.



```
def add(x):
    otal = 0
    count = 0
    while count < x:
        # ask the use
        num = input("
        # validate th
        try:
            num = flo
        except:
```

Done!

🎉