

MONDAY WORKSHEET

NAME: _____

MEET YOUR COZMO!

1. Let's give it a few properties

Name: _____ var: _____
 Age: _____ var: _____
 Birthday: _____ var: _____

Is your Cozmo's eyes blue? True False
 Does your Cozmo have arms and legs? True False
 Can Cozmo learn? True False

2. Make a new Python file called `01_my_cozmo.py`. Following your own Cozmo:

a. Print out its name, age, and birthday on your Python file.
 b. When you're done, click Run > Run. What do you notice about the output?

3. Make a new Python file called `oo_python_practice.py`. On this new file:

a. Cozmo can be a great calculator too. Play around with `+`, `-`, `*`, `/`, `%` on Integers and Floats.
 b. What's different between Integer `*` Integer vs. Integer `*` Float? Try with `/` and `%`.

4. Let's practice Escape Characters on the same Python file.

a. Create a String, with a `\n` at the end. On the next line, create a second String starting with `\t`.
 b. Print out both Strings, and run your program. What is the difference between the two outputs?

CHALLENGE: Whitespace is the spaces in your code, including Tab and Space. Whitespace matters in Python, which sets this language apart from other languages. Having the wrong whitespace will crash your program! Try this: `print("Hello World!")`

Now put a few spaces before the word print in your code. What error pops up?

You will notice the importance of indentation as you write more complex code!



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CHALLENGE: Add `import this` to the top of your code and run it. It's an easter egg that displays a little poem about Python. How do you think you could do something similar?
Hint: Try replacing the `"` syntax with `'''`.

5. Open the file `01_my_cozmo.py` to practice variables, and work on the first mini-project!

RECAP: A **variable** is a container for information that can contain strings, integers, or boolean values. We **initialize** and use variables to store different types of data that you can use later in your program.

a. Go back to your customized Cozmo. Write down the variable names to its properties (name, age, birthday). Remember that they have to be clearly defined and make sense!
 b. Initialize these Cozmo variables in your Python file.
 c. Did you know that Strings can be added together? Try it out by using the `+` symbol between two strings and printing it out. What happens?

What about adding Strings and Integers? Strings and Booleans?

MINI-PROJECT: HI, MY NAME IS...

a. Let's write a short introduction about your Cozmo using your newly initialized variables! Be creative, and feel free to add Escape characters to format it.
 b. Once you've written your intro, let's start using the Cozmo SDK (Software Development Kit) and have Cozmo read out his intro to everyone! To get started, type out the code block below to your `01_my_cozmo.py`. Make sure `import cozmo` is the first line of code!

```

1 import cozmo
2
3 def cozmo_program(robot: cozmo.robot.Robot):
4     robot.say_text("<my intro>").wait_for_completed()
5
6 cozmo.run_program(cozmo_program)

```



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6. Open the file `oo_python_practice.py` to practice comparison operators.

Knowing the meaning of each comparison operator, circle the correct answers.

a. <code>500.0 > ?</code>	100	200	500	1000	20000
b. <code>16 / 9 < ?</code>	1	2	5	10	20
c. <code>"g" >= ?</code>	""	"a"	"g"	"z"	"hello"
d. <code>True == ?</code>	True	False			

Test them out by printing in your file!

CHALLENGE: TRUTH TABLES EXERCISE

A	B	A and B	A or B	not A	not B	not (A and B)	(not B) or (not (A and B))
T	T						
T	F						
F	T						
F	F						

MINI-PROJECT: HOW WELL DO YOU KNOW ME?

a. Now that we've learned how to use Conditional Statements with `if` and `else`, let's see if we can add some quiz questions after Cozmo's introduction to see if the listener really paid attention! Don't forget to use `variable = input("Your question here")` to store their answers.

b. Stuck? Try asking if they can recall their name, birthday day or month, or anything specific you mentioned in the intro!



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