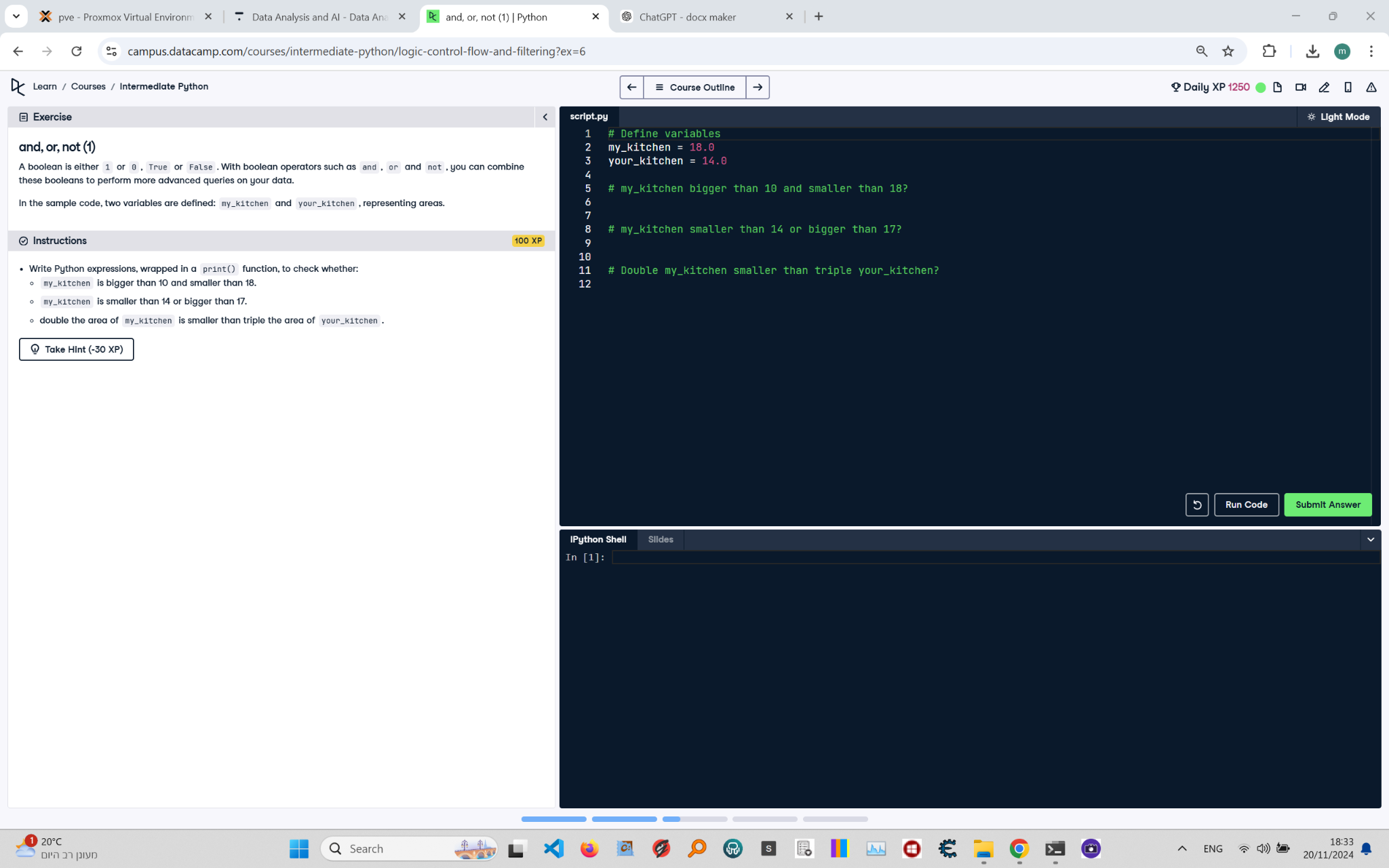
# Boolean Operators in Python: and, or, not



\*\*Question:\*\*

Write Python expressions, wrapped in a `print()` function, to check whether:  
1. `my\_kitchen` is bigger than 10 and smaller than 18.  
2. `my\_kitchen` is smaller than 14 or bigger than 17.  
3. Double the area of `my\_kitchen` is smaller than triple the area of `your\_kitchen`.

\*\*Answer:\*\*

Here is the Python code that solves the problem:

# Define variables  
my\_kitchen = 18.0  
your\_kitchen = 14.0  
  
# my\_kitchen bigger than 10 and smaller than 18  
print(my\_kitchen > 10 and my\_kitchen < 18)  
  
# my\_kitchen smaller than 14 or bigger than 17  
print(my\_kitchen < 14 or my\_kitchen > 17)  
  
# Double my\_kitchen smaller than triple your\_kitchen  
print((my\_kitchen \* 2) < (your\_kitchen \* 3))

\*\*Explanation of the Code:\*\*

1. \*\*Define variables\*\*: `my\_kitchen` and `your\_kitchen` represent the areas of two kitchens.  
2. \*\*Logical AND operation\*\*: The first print statement uses `and` to check if `my\_kitchen` is greater than 10 and less than 18, returning `True` only if both conditions are satisfied.  
3. \*\*Logical OR operation\*\*: The second print statement uses `or` to check if `my\_kitchen` is less than 14 or greater than 17, returning `True` if at least one of the conditions is satisfied.  
4. \*\*Arithmetic and comparison operation\*\*: The third print statement multiplies `my\_kitchen` by 2 and `your\_kitchen` by 3, then compares them to check if the double of `my\_kitchen` is smaller than the triple of `your\_kitchen`, returning the result as `True` or `False`.