Lab 9 – 20 pts

1) Take a screenshot of the outputs AND the python script of the exercise and name the files as "yourname_cs110_lab9" and submit to Canvas.
2) Save the editor/python file as yourname_cs110_lab9.py and submit it to Canvas.
    a. Make sure to save it with the .py extension.

[10 pts] Task 1

Define two local lambda functions in calculate_square_and_cube(n).

Expected Function Signature in Code:

calculate_square_and_cube(n) -> tuple

1. Inside calculate_square_and_cube, define two lambda functions:
2. One lambda function to calculate the square of n.
3. Another lambda function to calculate the cube of n.
4. Return a tuple containing both the square and the cube.
5. Outside the function, ask the user to input a number.
6. Call calculate_square_and_cube with the user's input and print the results.

[10 pts] Task 2

Create a recursive function to calculate the sum of all positive integers up to a user-input number.

Expected Function Signature in Code:

sum_up_to(n) -> int

- Inside sum_up_to, use recursion to add all integers from n down to 1.
- Use the base case n <= 0 to return 0.
- Otherwise, return n + sum_up_to(n - 1).
- Outside the function, ask the user to input a positive integer.
- Call sum_up_to with the user's input and print the result, which is the sum of all positive integers up to that number.