Wiki - Practice exercise for interactive applications

Solve each of the practice exercises below. Each problem includes two CodeSkulptor links; one for a template that you should use as a starting point for your solution and our solution to the exercise.

1. Given the program template below, write a Python function print_goodbye() that defines a local variable message whose value is "Goodbye" and prints the value of this local variable to the console. Note that the existing global variable message retains its original value "Hello" after the call to print_goodbye() completes.

   Print goodbye template
   Print goodbye solution

2. Given the program template below, write a Python function set_goodbye() that updates a global variable message with the value "Goodbye" and prints the value of this global variable to the console. Note that the existing global variable message has its original value "Hello" modified to "Goodbye" during the call to set_goodbye().

   Set goodbye template
   Set goodbye solution

3. **Challenge:** Given the program template below, implement four functions that manipulate a global variable count as follows:

   - The function reset() sets the value of count to be zero,
   - The function increment() adds one to count,
   - The function decrement() subtracts one from count,
   - The function print_count() that prints the value of count to the console.

   Count operations template
   Count operations solution

4. Complete the program template below so that the resulting CodeSkulptor program opens a frame of size 100×200 with the title "My first frame". You will need to add only two extra lines of code.

   Two extra lines template
   Two extra lines solution

5. Given the program template below, modify the program to create a CodeSkulptor frame that opens a 200×100 pixel frame with the title "My second frame". Remember to use the Docs to determine the correct syntax for the necessary SimpleGUI calls.

   Open frame template
   Open frame solution