# Homework 6

You must complete this assignment *without searching online*. You can use our class recordings, the textbook up to the current chapter, the Jupyter notebooks, conversations with your colleagues and me, and the approved resources; that’s all. This assignment should be completed with only the techniques we’ve covered in class so far. If you get code from anywhere besides your own brain, you need to cite the source in a comment.

Also, as always, **be sure to follow the style guide**, including turning in a plan with your code. Seriously, **don’t forget to plan *before* you code!**

1) Write a number guessing game! (Use at least two functions. More is fine; counting main(), I used four.)

Your program should generate a pseudorandom number in the range from 1 through 100 and ask the user to guess what the number is. If they guess too high, the program should display “Too high, try again.” If they guess too low, the program should display “Too low, try again.” If they guess the correct number, the application should congratulate them, tell them how many guesses it took, and ask if they want to play again. If they want to play again, the program should generate a new random number and let them play again. (I’m going to stop pointing this out and expect you to *do this automatically*, but I’ll say it explicitly this one last time: don’t accept invalid numbers as input. For now you can assume the user will enter a number, though.)

**Example output:** (user input in green)

Let's play a game.

I'm thinking of a number between 1 and 100. Try to guess it!

Please guess a number between 1 and 100: 0

That was not a valid guess.

Please guess a number between 1 and 100: 50

Your guess was high. Keep going!

Please guess a number between 1 and 100: 25

Your guess was high. Keep going!

Please guess a number between 1 and 100: 15

Your guess was high. Keep going!

Please guess a number between 1 and 100: 7

Your guess was high. Keep going!

Please guess a number between 1 and 100: 105

That was not a valid guess.

Please guess a number between 1 and 100: 107

That was not a valid guess.

Please guess a number between 1 and 100: 4

Your guess was high. Keep going!

Please guess a number between 1 and 100: 2

Your guess was low. Keep going!

Please guess a number between 1 and 100: 3

You won! It took you 7 guesses.

That was fun! Shall we play again? yes/no: no

Testing note: it should play again if they say “yes.”

2) Read chapter 5 for next week. Bring your questions to class.