

## PROGRAMMING CHALLENGES

Here are some challenges to build on and improve the Hangman game you created in this chapter.

### #1: MORE WORDS

Add your own words to the words array. Remember to enter words in all lowercase.

### #2: CAPITAL LETTERS

If a player guesses a capital letter, it won't match a lowercase letter in the secret word. To address this potential problem, convert the player's guess to lowercase. (Hint: You can use the `toLowerCase` method to convert a string to lowercase.)

### #3: LIMITING GUESSES

Our Hangman game gives a player unlimited guesses. Add a variable to track the number of guesses and end the game if the player runs out of guesses. (Hint: Check this variable in the same `while` loop that checks whether `remainingLetters > 0`. As we did in Chapter 2, you can use `&&` to check whether two Boolean conditions are true.)

### #4: FIXING A BUG

There's a bug in the game: if you keep guessing the same correct letter, `remainingLetters` will keep decrementing. Can you fix it? (Hint: You could add another condition to check whether a value in `answerArray` is still an underscore. If it's not an underscore, then that letter must have been guessed already.)