

Game Challenge

Hangman

In this exercise we implement a simple version of the game Hangman. In this game, a word is given by the program that the player has to guess, letter by letter. The player guesses one letter at a time until the entire word has been guessed. Each time the player guesses incorrectly, the 'hangman' loses a limb (head, body, 2 legs, and 2 arms). After losing all six limbs, the player loses, if (s)he manages to guess the word before losing all limbs, (s)he wins.

Adapted from [practicepython.org](https://www.practicepython.org/).

Try to solve each challenge without looking at the hints, but feel free to use whatever else information source. If you feel a bit stuck look at the hint. If you are still stuck, do not hesitate to reach out to one of the trainers. After finishing one of the challenges, you might find it useful to also reach out to one of the trainers to discuss it.

If you cannot finish it all, that does not matter. If you want to you can finish it at home. If you need help or have your answers checked, you can reach out to us at an time later.

Enjoy the challenges!**Challenge 1**

Read in a text file containing a word on each line. The output should be a list of the words. You can use [SOWPODS dictionary](#) as a sample file.

Challenge 2

Pick a random word from that list and store it in a variable. For now, print it out (if you want to actually play later, you might want to remove that print statement ;).

Hint 2.1

Use the Python library `random`.

Challenge 3

Read in a letter from the user. Make sure, that you only accept a single, uppercase letter at a time and store it.

Challenge 4

Keep track of all the user's guesses. Also reject inputs, that have been made before.

Challenge 5

Figure out, if the guessed letters shows up in the previously randomly chosen word and generate a success or failure message. Then print the word, but with all not-guessed letters replaced by an underscore.

Hint 5.1

Investigate what `list("Hello")` does.

Hint 5.2

Investigate what `"".join(["H", "e", "l", "l", "o"])` does.

Challenge 6

End the game, when all letters have been guessed or if the user has guessed six incorrect letters.

Challenge 7 (Bonus)

Generate a nice output illustrating the Hangman losing a limb for each incorrect guess :)