

Assignment 1: Hangman

Write a program that plays the game of hangman with the user.

Instructions

In your game, the computer chooses a word, and the user tries to guess it. Your program should:

- Choose a random word from a short list of words
- Prompt the user to guess the next letter
- Display the blanks and correct guesses, e.g., “_ y t _ o n”
- Display the incorrect guesses and the number of remaining guesses
- Inform the player if they make a guess that they’ve already tried
- Inform the player if they make a guess that isn’t a single letter
- Tell the player they won if they get the word correct before their guesses run out
- Tell the player they lost if their guesses run out before they get the word correct

If you want to, your program may also display a stick figure that gets completed as the player uses up their guesses.

Here is an example of what playing the game could look like. Your output doesn’t have to match this exactly, but it does need to meet all the requirements above.

▼ TERMINAL

```
● (.venv) $ /Users/sjoiner/src/pyinter-2025/.venv/bin/python /Users/sjoiner/src/pyinter-2025/code/hangman.py
Let's play hangman!

- - - - -
Incorrect guesses:
You have 6 guesses left.
Guess a letter: e
Sorry, e is not in the word.

- - - - -
Incorrect guesses: e
You have 5 guesses left.
Guess a letter: o
Good guess! o is in the word.

- - - - o -
Incorrect guesses: e
You have 5 guesses left.
Guess a letter: s
Sorry, s is not in the word.

- - - - o -
Incorrect guesses: e, s
You have 4 guesses left.
Guess a letter: t
Good guess! t is in the word.

_ _ t _ o _
Incorrect guesses: e, s
You have 4 guesses left.
Guess a letter: n
Good guess! n is in the word.

_ _ t _ o n
Incorrect guesses: e, s
You have 4 guesses left.
Guess a letter: y
Good guess! y is in the word.

_ y t _ o n
Incorrect guesses: e, s
You have 4 guesses left.
Guess a letter: h
Good guess! h is in the word.

_ y t h o n
Incorrect guesses: e, s
You have 4 guesses left.
Guess a letter: p
Good guess! p is in the word.
Congratulations! You guessed the word: python
❖ (.venv) $
```

Hints

Feel free to search the internet for help remembering how to do things in Python. Remember to understand the code you use – don't just copy/paste. Here are some additional reminders that may or may not be helpful.

```
import random

n = random.randint(0, 100) # generate a random number between 0 and 99

words = ["enchilada", "taco", "quesadilla"] # create a list of words
num_words = len(words) # get the number of items in a list
words.append("chimichanga") # add an item to the end of a list

name = input("What is your name? ") # ask the user for their name
name_length = len(name) # get the length of a string
print(f"Hello, {name}!") # print a formatted string

for letter in name: # loop through each character in a string
    print(letter)

if "x" in name: # test if a character or substring is in a string
    print("Your name has an x in it!")

name = name.lower() # convert a string to lowercase
name = name + "!!!" # concatenate strings

', '.join(words) # join a list of strings into a new string with separator
```