SCC011 Art of Coding Studio 5 and 6: Student Notes (javascript)

Studio Goals

The goals of this studio are:

- Become more familiar with javascript by completing a task
- Learn how to use arrays in javascript

Main Challenge – Hangman

This is a javascript challenge, there is another document for the python challenge.

This week you are trying to create a hangman game using the hangmanTemplate.html provided (it is stored as a zip to make it easier to download, so you need to unzip after downloading).

Hangman is a game where you try to guess the name of a film one letter at a time. If the letter is right, all instances of that letter will appear on the display of the film (which starts off with a series of dashes that each represent a letter). If the guess is wrong, a line is added to a drawing of a hangman. The image below shows me close to losing a game.
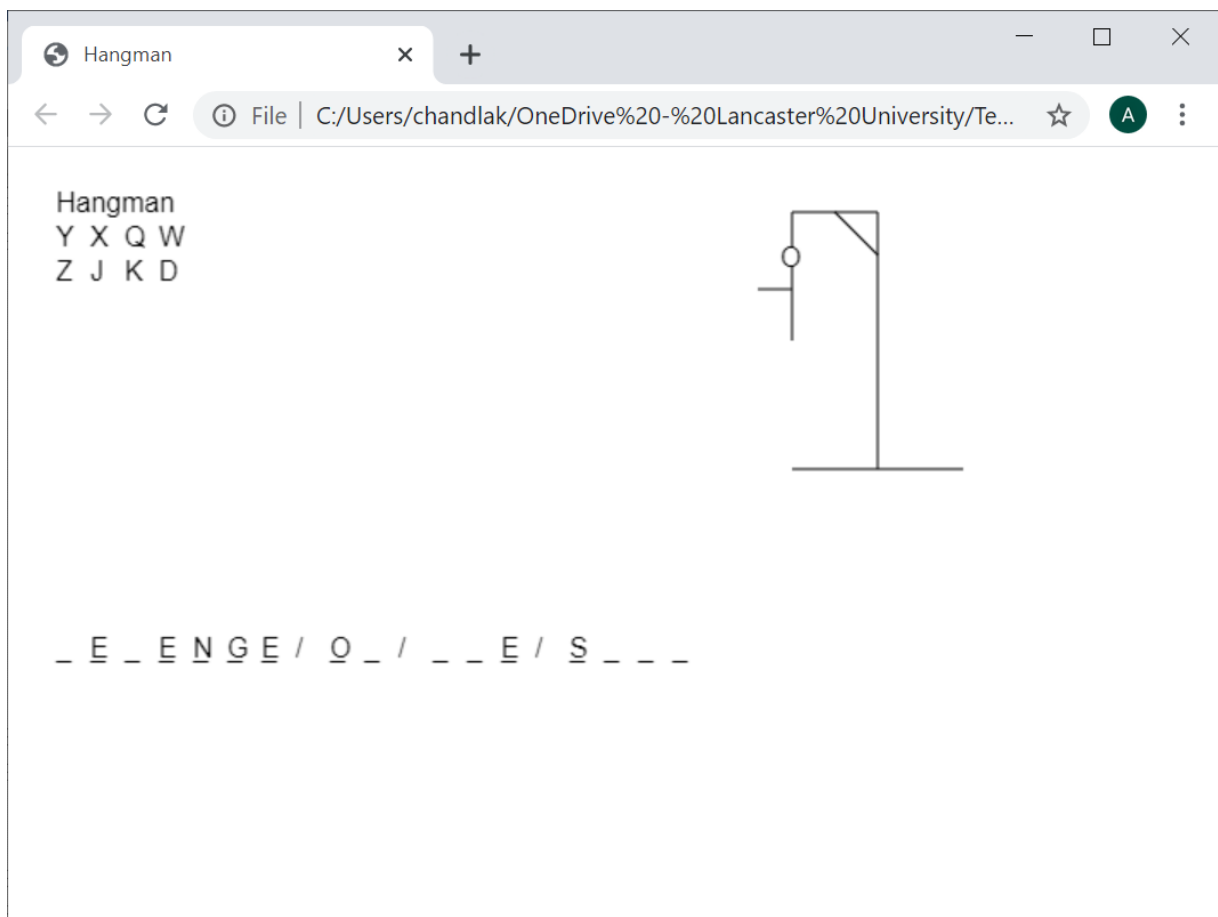
I realise, this sounds like a lot to do – don't worry, just take things a step at a time.

Step 1 – read through the template. There are a lot of comments explaining what's going on. In particular, look at how the dashes under the letters are drawn, and note the commented out version that shows you how to draw the letters. This is just like drawLine – there is a function called drawText. Pick a film, and put the name of that film into your game.

Step 2 – Look at the function keyCheck() that takes in the letters (note that it relies on CAPITAL LETTERS – it makes things simpler). This is where you must make a decision. The user will input a letter and you must do something different, depending on whether the letter is in the name of the film or not. It might be easier to start with the correct guesses.

Step 3 – If you're able to deal well with correct guesses, what happens with wrong guesses? Work out on paper what you think should happen, then have a try. It doesn't matter if your hangman starts as just a random collection of lines rather than a picture – that's just details! My hangman's head is just the letter O.

Step 4 – Detect winning and losing – remember, all of this still happens in keyCheck().

Hints

Hint 1

Firstly, it sounds like a lot – don't panic. All you're really doing is practicing using arrays. Can you get the name of your film to appear on the dashes? Can you see the letter you typed in? Can you do a test to see if the letter you typed in is in the name of the film? This will look like a for loop – because you need to step through each of the letters in the array of film letters. Inside the for loop, there needs to be an if statement. There is already an example of a for loop that steps through the letters of the array in the template, where is it?

Hint 2

If you're still struggling, why not try printing the letter you typed in? Don't worry about where on the screen it appears, just print it out. Remember, you can also use console.log to print out information about what's happening in your program. You could try getting console.log to print out the letters of your film one at a time. The letters of the film are stored in the array filmArray. Remember, this is just the same as printing lines in Spirograph.

Advanced

If you've got the basic game working, why not make it so that the film is chosen at random from a list of possible films? Then you can actually play the game yourself!

Have you used any functions in getting your game working? It might be useful to separate some of the workings into functions for tidiness.