**CS 120 Web Programming  
Project 2: Wordle**

## Tasks

Create the game of Wordle

## Objectives

Create an interactive game using JTML/CSS/JavaScript taking into account programming elements and UI/UX.

## Requirements

## Implement the game of Wordle *similar to* the NY Times version. In the game, the user gets 6 tries to guess a 5 letter word. Each guess must be a 5 letter word.

*IMPORTANT: see the attached video for a model of how your implementation should appear. You are welcome to add enhancements as long as you meet the requirements.*

## After each guess report the following to the user using a visual cue such as changing the background to indicate the status of each letter.

## Letters that are not in the word (usually grey)

## Letters that are in the correct place. (usually green)

## Letters that are in the word but are in the wrong position. (usually gold)

* Get the *guess* from the user using an input text field and a button.
* Get the answer randomly from a “dictionary” (array) of 5 letter words *that you create* (you must have at least 30 words).
* Display a used letter board indicating letters used. The used letter board must include a visual indicator of whether the used letter was correct/in the wrong place/ or not in the word
* Display the answer for each game in the console (to assist with debugging)
* If the user guesses the answer display a button that will restart the game when clicked.
* If the user uses up all 6 guesses without guessing the word, show the answer word in a popup and show the button to restart the game.
* *The game should be responsive down to 600px*
* You must include the following constructs as a minimum:
* An array
* An arrow function
* An event handler
* .map or .forEach
* A JavaScript object

**Example response**:  
Answer: PRIDE  
Guess: DOPED  
the D is in the wrong place  
the O is not in the word  
the P is in the wrong place  
the E is in the wrong place  
the second D is not in the word

*We will be looking for a creative implementation, not merely getting it to work.*You MAY NOT look up how to code the game online – that will be considered cheating.

## Add an API

Incorporate an API – you only need to do ONE of the following:

* Use an API to get a 5 letter word for the answer in real time when the game starts
* Use an API to check if a 5 letter guess word is a valid word

Note: find a free API. You may need to try more than one to get it to work as you want.

## Optional Extra credit (5 poits):

* Display the average guesses needed for the user on that device over multiple browser sessions (hint- use a cookie)

## Rubric:

Deliverables 10 points

Works and meets all requirements 60 points

Excellent user interface 15 points

Code quality 15 points

**Hints!**

The following are suggestions for the development process of creating your Wordle website as well as how to break this problem down. These are suggestions- not requirements.

1. Create the board first.
   1. Create a function to do one word and then loop to call it six times.
   2. Use a <div> for each of the cells
   3. You may add the div’s with document.write
   4. Add a class to the <div> to be able to style each letter. Add a second class to identify the position of the letter. Elements can have two or more classes separated by a space
2. Add the guess input box and button to submit the guess. Attach an event handler to the button that reads the word entered, validates that the word is 5 letters (display an error if it is not) and displays the word in an alert.
3. Change the event handler to place the word in the letter boxes for the first word
4. Set a variable to indicate the “current” word – ie, it should move down to the next word after a word is entered. Update the event handler to be able to fill in all 6 words. After the 6th word, display “game over” in an alert.
5. Hard code a word to be a guess – update the event handler display in an alert the status or each letter: correct/wrong place/not in word
6. Update the event handler to shade letters based on their status – suggestion: add a class to a letter to color it as correct/wrong place
7. Update the event handler to report a win or after 6 words, to display the answer word
8. Get the answer word using the API.

*That will complete all game play requirements – now you can add the additional enhancements.*