



# CSE22: Introduction to Programming

## Lab 5

### 1 Introduction

In this lab you will improve upon your Hangman game by lifting some of the restrictions that existed before.

### 2 Tasks

- The change required is that every time a user visits your Game tab, they should be given a different word (potentially). To achieve this, create a list of words on your backend. The list can be as long as you want, but it should be more than 3 elements. Also, each word should be a different length, and some of the words should have repeated letters.
- When the user visits your page, make a request to the backend to get one of the words. When the backend receives this request, it should generate a random number between 0 and the size of the word list (minus 1) and return the word at that index. The frontend should then visualize the appropriate number of dashes for the word.
- When the user submits a guess, your backend function that handles this should work correctly even if there are repeated occurrences of the letter in the word. The frontend should visualize the attempted letter correctly. That is to say, if the letter appears in the word, display it in every position where it appears. If it does not appear in the word, then add it to a list incorrect attempts that is displayed on the page.

### 3 Additional Tasks

- These tasks are not required but would be useful enrichment exercises for those of you who want to get more experience.
- Display nice messages on the frontend when a person has lost or won, and not with alerts. Do something that looks good on the interface.
- Instead of having a single text field with a button for the user to guess the letters, make 26 buttons on your interface, one for each letter of the alphabet.
- To make the interface even better, when the user clicks on a button to guess a letter, disable that button, so the user can not press it again. That way the user is not penalized twice for guessing the same incorrect letter.
- Finally, please feel free to add whatever other features you want to make the app your own. Looking forward to seeing what you will do

## 4 Deadline

This lab assignment is out of 100 points and it will count as your midterm for this class. The due date is Monday October 26, 2020 at 11:59 pm.