Tayler Keyboard (description): A digital keyboard you can play that produces my voice for each note. Serves as a tool for musical creation and fun. The keyboard allows users to press a button to switch the vowel (ay, ee, ah, oh, oo). The keyboard is controlled with the computer keyboard or clicking the keys on screen. I will need to record myself singing the different vowels and either pitch or record 2 octaves. Then design a keyboard that links these audios to the keys and have a key that either cycles through the different vowels or separate keys for each vowel. I will need to figure out how to set up audio files to play through javascript and how to design a playable keyboard on the user interface. I will also need to figure out how to link keys to multiple outputs based on another key being clicked to be able to use different vowels using the same keys.

Use case: To use the Tayler Keyboard, a user will sit down at their computer and pull up the website. They will be greeted with a 2 octave keyboard which will have clickable keys and also have the letter of the keyboard the key corresponds to on it. There will be a sidebar somewhere telling the user to click or type and explaining the different vowels. The user will be able to click or type to make sounds with the keys, including polyphony. The user will also be able to switch the keyboard to another vowel setting by pressing the corresponding key for that (probably 1,2,3,4,5 which will also have their own buttons on the on-screen keyboard). The user will have fun playing around with the different sounds they can make and once they create something they enjoy, they'll be able to record the audio by pressing a button on screen that creates a new audio file that the user can choose where to save.

Requirements:

- *User:* a computer (mobile compatibility would be fun but I'm not sure how hard that would be), speakers or headphones. Either keyboard or mouse is needed to operate the instrument.
- *Programmer*: Audio playback, WebAudio API, means of user recording and saving, audio files for the different notes and vowels, functional keyboard that works with clicks and corresponding keybinds, intuitive UI (with explanations where needed).

Constraints: probably only compatible on laptop and computer, not phone. Not compatible with other MIDI keyboards or devices other than computer keyboard and mouse.

Timeline:

3/25: Have recordings/pitched one vowel across two octaves.
3/31: A simple prototype of the keyboard with one vowel set that plays correct notes when buttons on a computer keyboard are clicked.
4/7: Clean up any functional issues, add keyboard visual that can be clicked.
4/14: Clean up keyboard screen design, add in other vowels, way to record.
4/21: Test and debug.
4/28: Publish site.