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CART-253

Instrument Simulator Prototype

For my project 2, I've decided to make an instrument player program that has various instruments the user can select from. My vision for this project is to allow the user to pick some more interesting and unique instruments and allow them to have full control over the sound. For the UI, I planned on a selection screen that would allow the user to pick his desired instrument and then change the state of the game to their selection. For the instruments, I wanted to pick some more bizarre choices, such as a theremin and the xylophone. To start off with in my prototype, however, I've decided to make a functional drum set. I would like to also perhaps add in a feature that could allow the user to record a beat they use on an instrument, then constantly loop their recorded audio with other instruments to make a beat. Additionally, I could add a metronome feature to allow the users to play on tempo and perhaps also add in some prerecorded audio files of each instrument. I would like to add as many fun features as I can for this project to enhance the user experience.

There will certainly be challenges with creating this, such as the large number of audio files that will be used and the cleanliness of the user interface. I see that there might be a lot of trouble surrounding the record and loop feature of this project. Audio files on top of other audio files may pose a problem as while, especially in getting them to not constantly loop. Another challenge would be to get the theremin to work properly, as that functions with a constant frequency of playing and changing depending on the user's mouse position. I wanted to add a choir the user can control as well, which could

also pose the same problem as the theremin. I am also unsure of how I will make the

animations of each object look, especially the choir. For now, a working drum kit will be

a sufficient prototype for my artistic vision.

Sketch: