Piano Training Simulator

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The *Piano Training Simulator* will eventually allow a person of any skill level to enhance their abilities on the ol' key slapper. This first scenario describes what happens when a user selects a song to begin training and what will appear on the screen.

A key feature of the training simulator is that the song data is read in from a MIDI file, allowing for ease of song-addition and user customization. The training simulator will utilize a vivid GUI allowing users to see how well they are playing songs in real-time, and ultimately bringing the user experience to life.

Scenario

The player starts the application by opening a command line in the root folder and typing: mvn compile exec:java -> in the command line.

Upon loading, the user will be presented with the option to select a song. The simulator should display a list of songs to the user and give the option to drag-and-drop a song file in MIDI format. All songs in the list should also be in MIDI format.

After a song is selected, the screen should change to a vacant area with a piano at the bottom half of the window, and a display at the top half of the window in which notes appear inline with the notes on the piano on the bottom half. Sheet music will be displayed as well, if available for that song.

The simulator will allow the user to start/stop the process at any time. Upon initial start, a countdown will begin, allowing the user time to prepare before the song begins. After the countdown is over, the simulator will begin sliding a 2D-graphic of each note down to the corresponding piano key, starting at the top of the screen. When the graphical note hits the piano key, it will disappear. This process continues for all notes until the song is over.