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**Scenario**

Our project is called RandoMIDI. It is a web application that generates pseudo-random MIDI files based on user specified parameters. For example, a typical use case would look something like this:

A user visits the home page and clicks a button to begin the composition process. A form is presented with various options such as instruments, tempo, style, length, key, time signature, mode, etc. Say the user decides to choose ‘classical’ style with ‘piano’ and ‘cello’ for instruments in the key of C major. Any form elements left blank will be selected at random. The application will take this information and use it to construct a MIDI file using random elements specified in the database, but keeping to the parameters. The result is a composition that can be played in the browser.

The more interesting use case would be to see what kind of weird pieces get generated when leaving everything random, or choosing conflicting elements. We see this as an inspirational tool for musicians and composers, as well as a learning tool for anyone who loves music.

**Details of Composition Creation**

In the example above, the application would first identify the style. The database will have different motifs, rhythms, progressions, instruments, and harmonies associated with each available style. In this case, it will assemble a random chord progression in C major that roughly fits with a classical style, choose motifs that harmonize that progression, use predefined, simple rhythms repeatedly, and generate a MIDI file with the help of a MIDI processing library.