

Implementation Manual for Music Maker

Music Maker as a Java program that allows the user to create, save, and load songs with multiple instruments. The program implements GUI through the use of JavaFX.

Main Classes:

MusicMaker (Main Application):

- The main entry to the program that manages the GUI.
- Allows the user to change instruments and edit their notes.

Song:

- Contains the BPM (beats per minute) and calls each instrument to play notes at each 1/4th beat.
- Includes the functions for saving and loading songs.

Instrument:

- Represents an individual instrument within the song.
- Plays .wav files contained in the instruments folder dependent on the location and pitches of each notes.
- Maintains note data (pitches and playtimes) and saves/loads this data using .txt files.

Audio Files are located within the instruments/ folder. Each instrument has a folder that contains 24 separate .wav files, each with a different pitch ranging from two octaves.

Song Data is saved in the songs/ folder. Within this folder, each song is saved in an additional folder named after the song's name and contain txt files that contain the song BPM and instrument note placements.

How to Run the Program:

To run this program, ensure you have Java Development Kit (version 8 or higher) installed to your computer as well as a compatible Java IDE. Additionally, you must be able to run JavaFX on your device.

Open the project in a Java IDE and ensure that your file directories are correct in the launch.json and settings.json files.

Finally, compile and run MusicMaker.java to start making your own music!

For information on how to use the program, read the User Manual.