Music Notation Platform

Overview

One of the main ways to compose music in the modern day is by using a music notation application.
Many music notation apps, however, have certain limiting factors, such as:

- accessibility
- affordability
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This platform aims to be an easily-accessible music notation software that is simple to use and completely free - no matter what.

Features and Requirements

1. Score Management

- Create a new score

- Set:

  - Title

  - Time signature (default: 4/4)

  - Key signature (default: C major)

  - Tempo (BPM)

-Save and load scores from persistent storage

2. Notation Data Model

The system shall internally represent:

- Score
- Staff
- Measures
- Notes:
  - Pitch (A–G)
  - Octave
  - Duration (whole, half, quarter, eighth)
  - Accidental (sharp, flat, natural)
- Rests

3. Note Entry & Editing

- Add notes by clicking on the staff

- Select note duration before placement

- Add rests

- Delete notes or rests

- Move notes vertically to change pitch

- Automatically advance cursor within measures

4. Measure & Timing Logic

Enforce time signature rules per measure

Prevent overfilling a measure

Automatically create new measures when needed

Display bar lines between measures

5. Rendering Engine

Render notation using SVG

Display:

Staff lines

Clef

Notes

Rests

Bar lines

Maintain consistent horizontal spacing

Re-render dynamically on edits

6. Playback

Play score from beginning

Correct pitch and rhythm playback

Tempo-based timing

Visual playback cursor

7. Import / Export

Export score to MIDI or MusicXML

Export must reflect current notation state accurately

8. Undo / Redo

Support undo and redo of:

Note addition

Deletion

Pitch changes

Implemented using a command or history-based system

Milestones

Sprint 1-1: Score managmement

Sprint 1-2: Notation Data Model

Sprint 1-3: Note entry and Undo/Redo

Sprint 1-4: Measure/Time/Tempo logic

Sprint 2-1: Finish Measure/Time/Tempo Logic and begin Rendering Setup

Sprint 2-2: Finish Rendering Setup and begin Playback Logic

Sprint 2-3: Finalize Playback (Push The Limits!)

Sprint 2-4: Import/Export

Sprint 2-5: Flex Week - Finalize EVERYTHING

All of this information will be in the docs folder on the Github Repository and on the Project Page.

Questions?

Thank You