Note Harbor

Project by Brânda Vlad and Tuduran Diana

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The goal of NoteHarbor

Audio Conversion
Convert audio to sheet music.
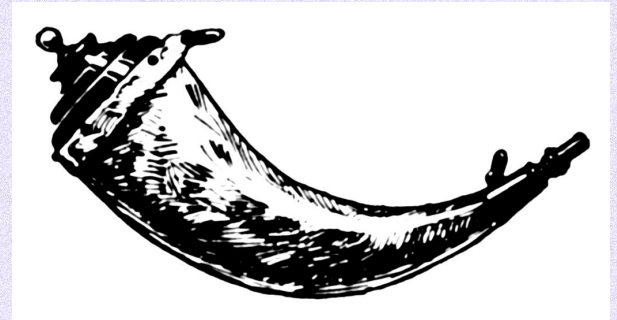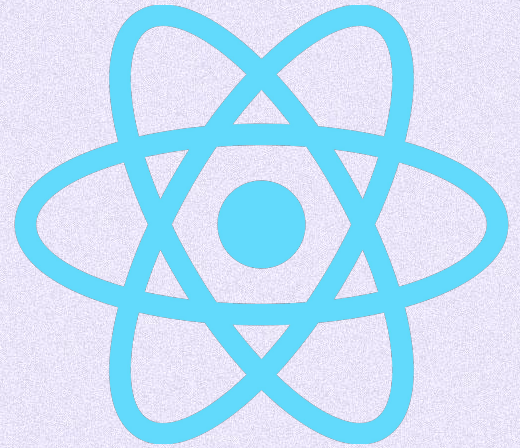
Save your scores
Log in to save your sheet music.
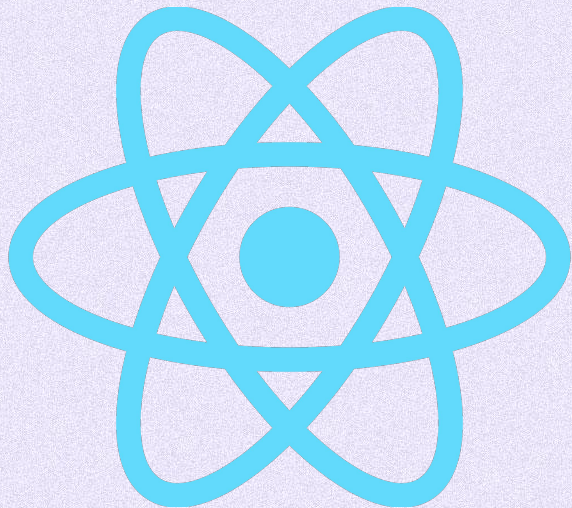
Score management
Delete unwanted scores to make room for more.

Technologies used

- ReactJS
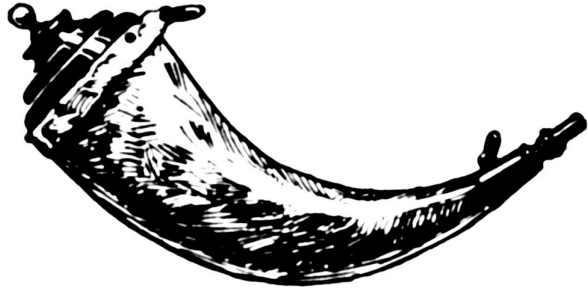- Ionic Capacitor
- Python
- Flask
- MySQL

ReactJS

- Front-end JavaScript library for building user interfaces based on components.
- Creates single-page apps that are easily rendered.
- Extensions
  - Material UI (MUI): offers a wide range of components and UI tools.
  - React Redux: used to easily store data between components
  - Axios: handles all requests towards the server

Ionic Capacitor

- Native runtime for building Web Native apps

- Useful to create cross-platform apps

- Used to build the ReactJS app for mobile use

Python - Flask

- Framework that we use in order to connect to the database

- Handles all the requests from the Front-end

Python – other modules

- <u>Basic-pitch</u>:
    - Python library for Automatic Music Transcription
    - Uses lightweight neural network developed by Spotify's Audio Intelligence Lab
    - Used to convert the audio files to MIDI
- <u>Music21</u>:
    - Parses the MIDI and converts to our format of choice
- <u>LilyPond</u>:
    - Music engraving program that helps with the conversion

MySQL

Diagram of the table relations

- Database

- Stores all the data of the app
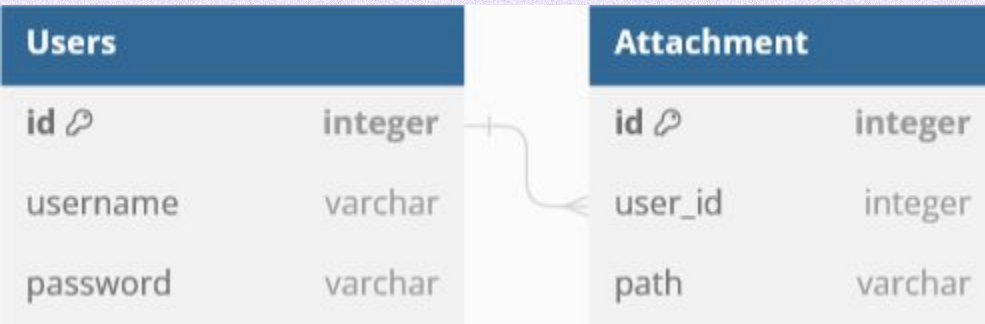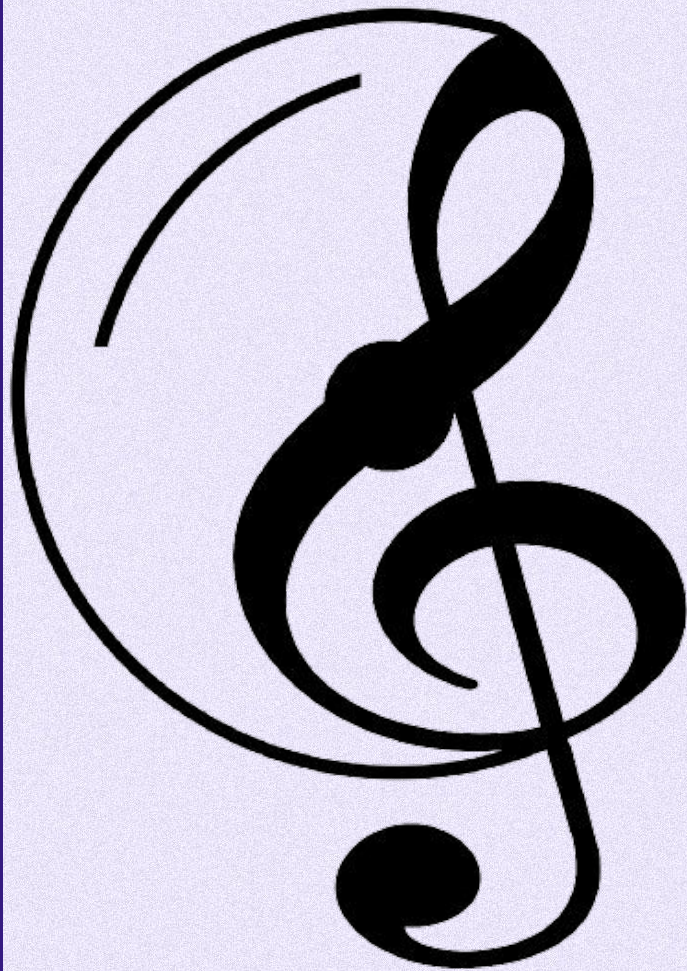
The Architecture

- 3 Layers:
  - Front-end: ReactJS app
  - Link: Flask server
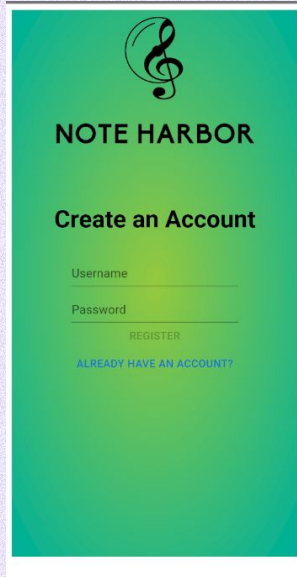 - Back-end: MySQL database

Using NoteHarbor

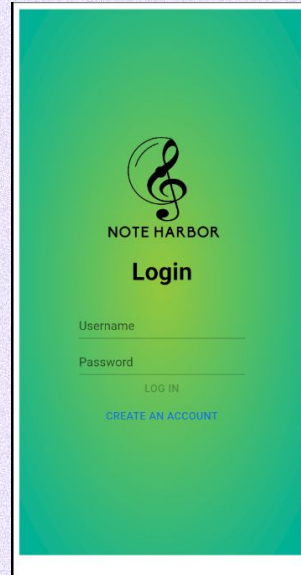- Logging in
- Downloading the sheet music
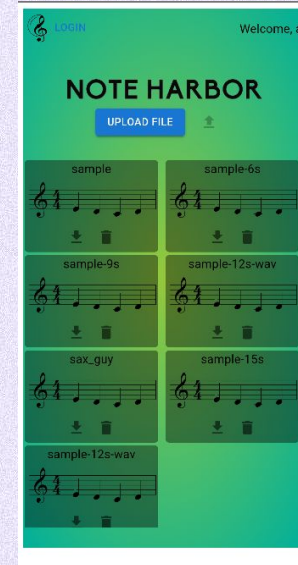
NoteHarbor

Creating an Account

A user can create an account.

Logging In

An authentication step must be done to get past scores.

The Main Page

Uploading, downloading and deleting scores.

Documentation

- [Material UI (MUI)](#)
- [React Redux](#)
- [Axios](#)

- [Basic-pitch](#)
- [Music21](#)
- [LilyPond](#)
- App repository: https://github.com/diana-tuduran/NoteHarbor