Scanspose

Transpose your sheet music for free. Save your time & money.

Hari Koornala, Max Grisanti, Kruthi Gundu, MA Academy of Math and Science
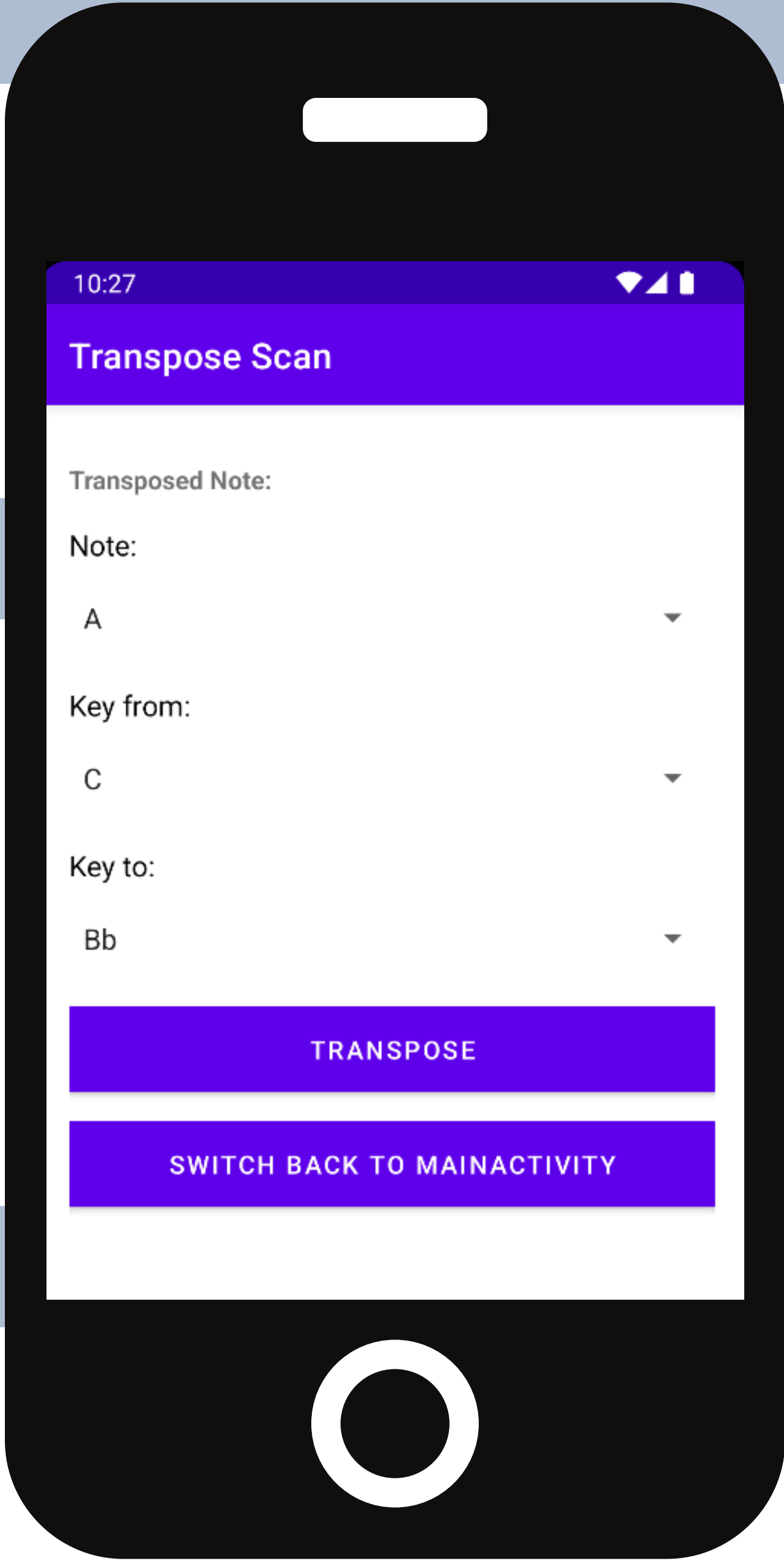Advisor: Mrs. Angela Taricco

Key Features

- Users can take a photo of their sheet music and choose the current key and the target key of the music
- The app will transpose all the music notes in the image file and output a new image file with the transposed music.
- Users can utilize the QuickTranspose feature to convert single notes from one key of choice to another.

Problem

- Different instruments play in different keys, which require notes to be transposed before music can shared.
- Sheet music is not always available in the instrument of choice, therefore, it must be transposed from the available to instrument.
- Transposing is a common process, yet tedious and time consuming to perform manually.
- Current products are very expensive and can require periodic subscriptions as well. They also contain many options and inputs which can be overwhelming for users.
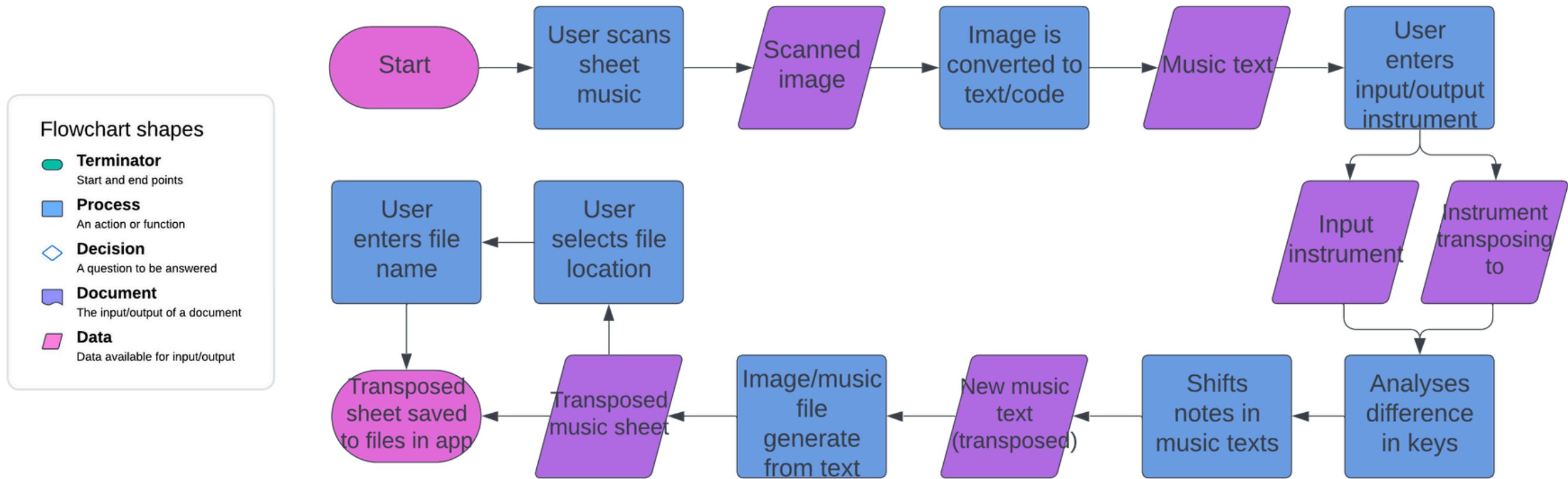
Target Audience

- Musicians, music students, music teachers, ensemble directors who frequently transpose music
- Anyone new to learning and playing music or anyone self-learning music who do not have a thorough understanding of music theory yet.

Algorithm

- CameraX Jetpack Library is used to capture the sheet music as an image.
- Opensource Optical Music Recognition (OMR) software Audiveris is used to scan the music image file and output a MusicXML file with the notes.
- The MusicXML file is converted to an XML file and the notes are transposed.
- The XML file is again converted to an image file and outputted to the user.
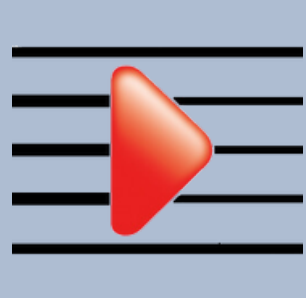
Architecture

Competitors

- InsTranspose
- ScanScore
- MuseScore

Future Work

- Music Composition & File Editing UI
- Play music Files
- File Viewer
- File Input & Output Format Flexibility