Problem Statement and Goals
ScoreGen

Team #7, Tune Goons
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Table 1: Revision History

Date	Developer(s)	Change
Date1	Name(s)	Description of changes
Date2	Name(s)	Description of changes
...	...	...

1 Problem Statement

1.1 Problem

Musicians often improvise or develop complex pieces, but have difficulty sharing, expanding on, or documenting their progress. Manual note-taking is also time-consuming and prone to errors.

1.2 Inputs and Outputs

The product aims to take in audio from a singular musical instrument, and after processing the data, output the sheet music representative of the audio provided. The sheet music will contain the notes, note duration, and overall time signature of the piece.

1.3 Stakeholders

The product is largely aimed at helping aspiring musicians who either lack the time or the theory background to document their work in a tangible written form. It may be useful for collaborating artists who need a quick way to communicate suggestions or potential melodies.

1.4 Environment

To use this product the user simply has to download the desktop application associated with the product, and a high-quality microphone attachment to their computer

2 Goals

The ultimate goal is to develop a fast, accurate sheet music generator paired with an intuitive, user-friendly interface that requires minimal effort to learn.

3 Stretch Goals

4 Challenge Level and Extras

[State your expected challenge level (advanced, general or basic). The challenge can come through the required domain knowledge, the implementation or something else. Usually the greater the novelty of a project the greater its challenge level. You should include your rationale for the selected level. Approval of the level will be part of the discussion with the instructor for approving the project. The challenge level, with the approval (or request) of the instructor, can be modified over the course of the term. —SS]

[Teams may wish to include extras as either potential bonus grades, or to make up for a less advanced challenge level. Potential extras include usability testing, code walkthroughs, user documentation, formal proof, GenderMag personas, Design Thinking, etc. Normally the maximum number of extras will be two. Approval of the extras will be part of the discussion with the instructor for approving the project. The extras, with the approval (or request) of the instructor, can be modified over the course of the term. —SS]

Appendix — Reflection

[Not required for CAS 741 —SS]

The purpose of reflection questions is to give you a chance to assess your own learning and that of your group as a whole, and to find ways to improve in the future. Reflection is an important part of the learning process. Reflection is also an essential component of a successful software development process.

Reflections are most interesting and useful when they're honest, even if the stories they tell are imperfect. You will be marked based on your depth of thought and analysis, and not based on the content of the reflections themselves. Thus, for full marks we encourage you to answer openly and honestly and to avoid simply writing "what you think the evaluator wants to hear."

Please answer the following questions. Some questions can be answered on the team level, but where appropriate, each team member should write their own response:

1. What went well while writing this deliverable?
2. What pain points did you experience during this deliverable, and how did you resolve them?
3. How did you and your team adjust the scope of your goals to ensure they are suitable for a Capstone project (not overly ambitious but also of appropriate complexity for a senior design project)?