Group 3

Requirements Document

MusicXML Converter

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1.0 - Introduction

1.1 - Purpose

The purpose of this requirements document will be to cover all the requirements for Group 3's MusicXML converter. The MusicXML converter is an application that will allow the user to import tablature text files (including guitar, drum, and bass) and convert them to XML files.

1.2 - Scope

The software will have a very simple user interface that will be easy to navigate, convert to XML properly, give friendly error messages, and allow the user to view the tabs and saved XMLs inside the program.

1.3 - Customer Needs

The main goal of this software will be to have a tool for musicians that will allow them to get tablatures from the internet and convert them to XML files which they can later convert to Sheet Music.

2.0 - User Stories

2.1 - Story 1:

"I would love to be able to view my music tabs inside the software."

2.2 - Story 2

"I think it would be a great idea to allow the user to see the XML inside the software."

2.3 - Story 3

"Maybe instead of just being able to upload the tab into the program you can also copy and paste into it."

2.4 - Story 4

"I would love to import any type of tab into it without having to edit it to the specifications"

2.5 - Story 5

"Would the program be able to detect what type of tab it is? I think having it automatically detect what type of tab it is would be a great feature."

3.0 - Use Scenarios

3.1 - Upload/Insert tablature text files

Title: Upload/Insert tab files
Primary Actor: User
Success Scenario:

1. User selects the “Import” option in the software
2. User selects a .txt file from their system
3. Software reads the file and makes sure its the correct format
4. Software saves the file

Extensions:

2a. The software read the file and determined it was not a .txt file and throws an error Message saying the file the user is trying to enter is not the correct format

3.2 - Detect tab type

Title: Detect tab type
Primary Actor: Group 3 MusicXML converter
Success Scenario:

1. Software analyses Users Imported .txt file
2. Software determines if the .txt is a guitar, drum, or bass tablature
3. GUI will show what type of tablature is it, including guitar, drum, or bass tablature

Extensions:

2a. Software cant recognize what type of tablature it is. It will provide an error message for the user saying that it could not be recognized and will then allow the user to manually input it.

3.3 - View uploaded tablature

Title: View uploaded tab
Primary Actor: User
Success Scenario:

1. User selects a tablature that they have uploaded
2. User presses the “View” button
3. Software displays the selected tablature in the GUI window

3.4 - Convert tablatures to XML

Title: Convert tabs to XML
Primary Actor: Group 3 MusicXML converter
Success Scenario:

1. User selects a tablature that they have uploaded
2. User presses the “Convert” button
3. Software performs the necessary actions to scan the tablature and convert to XML

Extensions:

3a. Software was unable to convert the tablature properly to XML. An error message and will tell the user something went wrong and to try again.

3.5 - View converted XML

Title: View converted XML
Primary Actor: User
Success Scenario:

1. User converts the selected tab to XML
2. User navigates the GUI and finds the XML tablature
3. Software displays the converted XML in the GUI window

3.6 - Save converted XML

Title: Save converted XML
Primary Actor: Group 3 MusicXML converter
Success Scenarios:

1. User converts the selected tablature to XML
2. User presses the “Save” button
3. Software opens a new window and prompts the user for a location and name for the MusicXML file.
4. Software saves the MusicXML file onto the users selected location.
5.

3.7 - Use case for Musicians

Title: Tab to XML
Primary Actor: Musicians wanting to change tab text files to XML files
Success Scenario:

1. The Musician should be able to upload a text file.
2. The System identifies which type of tab the text file is.
3. System analyzes the tab and converts it to XML.
4. System notifies the user that it is finished converting.
5. Musician exports the XML file.

Extensions:

2a. If the text file is not a proper tab, it will ask the user to upload a proper file.

Precondition:

The Musician must have a tab text file that they want to convert to a XML file

4.0 - Requirements

4.1 - Functional Requirements

The system must...

- Have the ability to decipher between drum, guitar and bass tabs interchangeably
- Accept users implemented text document
- Automatically detect if the file imported is a tab.
- Convert a proper text file into a musicXML file.
- Export the musicXML file onto your computer in the folder of your choice.
- Be able to reject tablatures if they are unsupported

4.2 - Non-Functional Requirements

The system should ...

- Be expected to be automatic but can also be user specified
- Have a user friendly Interface (simple and easy to use design)
- Not have any issues loading up and closing
- Should be able to run on most unbasic computing systems (e.g. Windows, Mac OS, Linux)