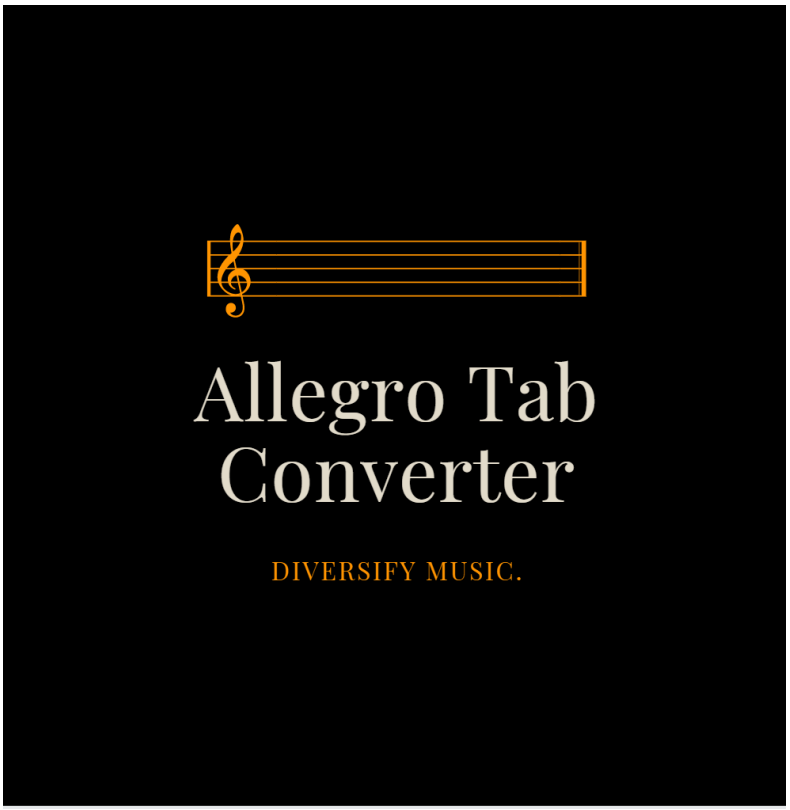

ALLEGRO TAB CONVERTER

CREATED BY:

Mohammed Fulwala

Shawn Verma

Junhyeong Park

Rafael Dolores

Yashraj Rathore

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INTRODUCTION

WHAT IS ALLEGRO TAB CONVERTER?

The Allegro Tab Converter is a software that allows the user to input a .txt or a simple text containing a guitar, bass, or drum tablature for a song (eg. Capricho Arabe by Francisco Tarrega) and produces a .musicxml file. This file can be used for sharing sheet music files between applications, and for archiving sheet music files for use in the future. You can count on MusicXML files being readable and usable by a wide range of music notation applications, now and in the future. MusicXML complements the native file formats used by Finale and other programs, which are designed for rapid, interactive use. Just as MP3 files have become synonymous with sharing recorded music, MusicXML files have become the standard for sharing interactive sheet music. With MusicXML you can create music in one program and share your results – back and forth – with people using other programs. Currently, it is only accessible via desktop computers.

RECOMMENDED SYSTEM REQUIREMENTS

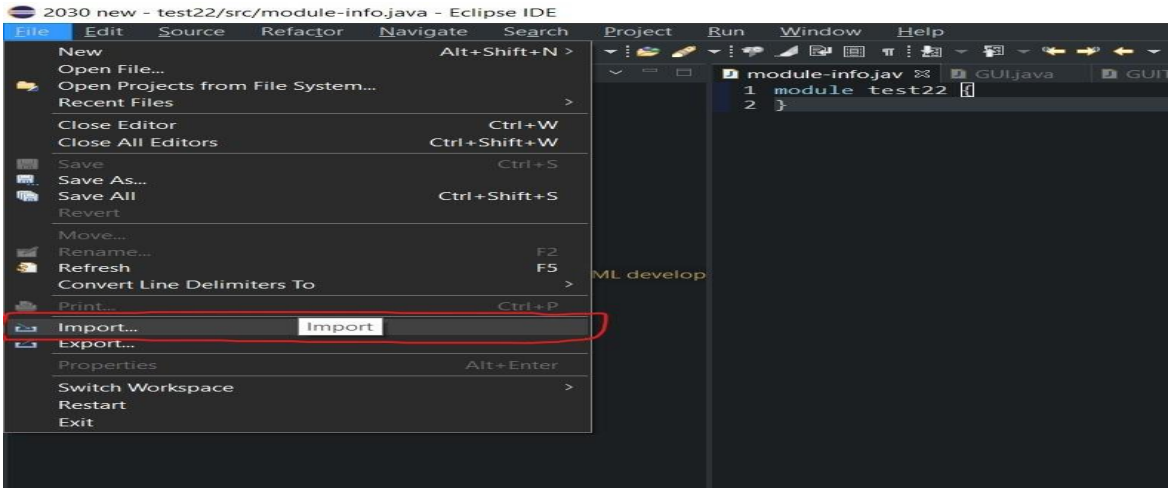
1. Windows
    - *Java SE-13 or higher*
    - *Windows Vista or higher*
2. *MAC OS X*
    - *Intel-based Mac running Mac OS X 10.8.3+, 10.9+*
    - *Administrator privileges for installation*
    - *64 bit-browser*

INSTRUCTIONS ON USING ATC

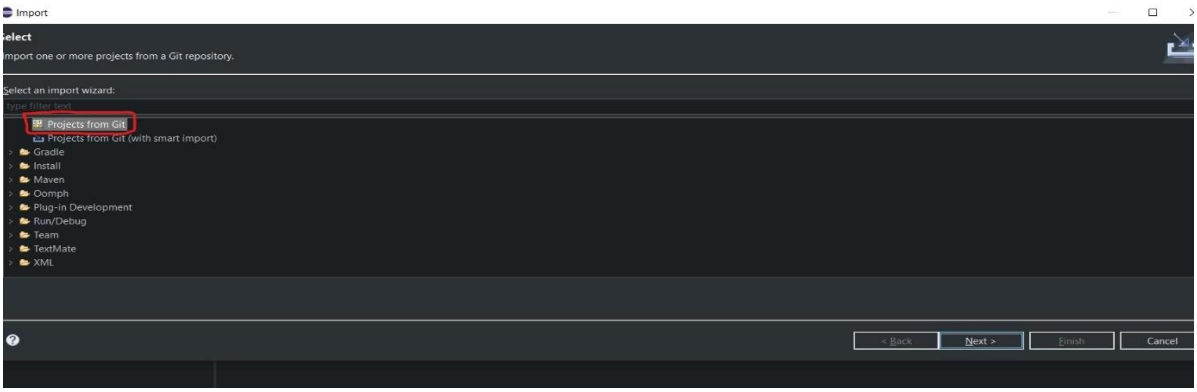
IMPORTING THE PROJECT

The ATC project will function on your system using eclipse. To ensure that the project is being imported correctly follow these instructions.

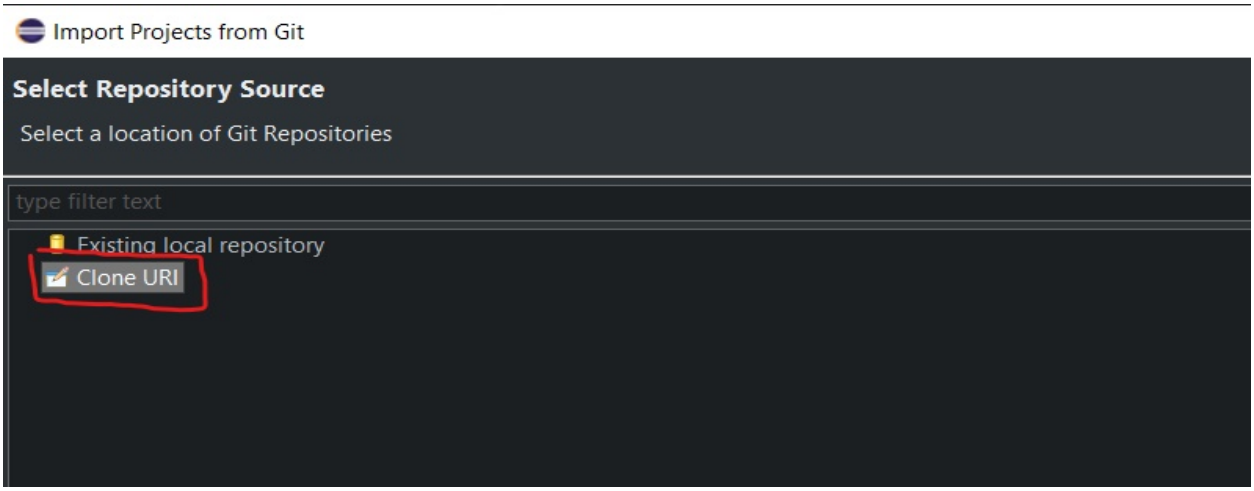
1. Download Eclipse. The latest version of eclipse is provided here https://www.eclipse.org/downloads/.
2. Once eclipse is installed, open the application, and find a suitable workspace to work in.
3. Now click file, then import in the top left corner.



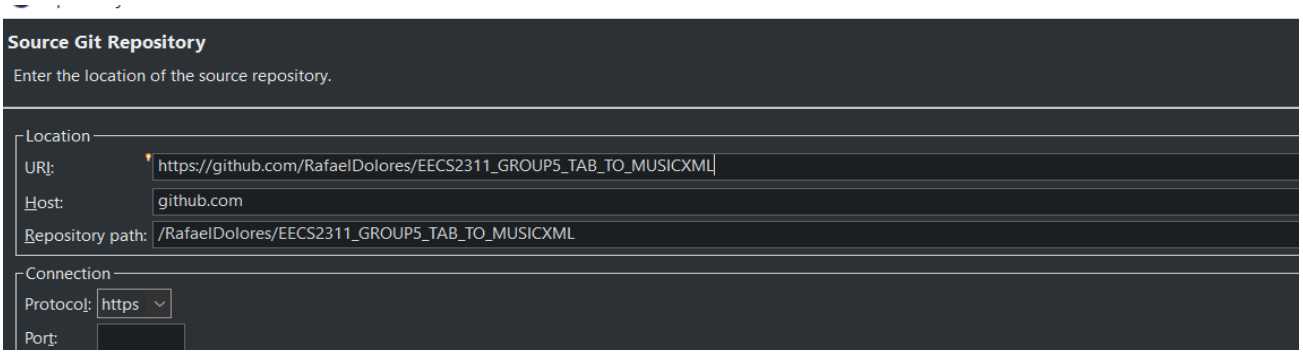
4. A window will pop with the different import options. Select “Projects from Git”.



5. Now click on “Clone URI”

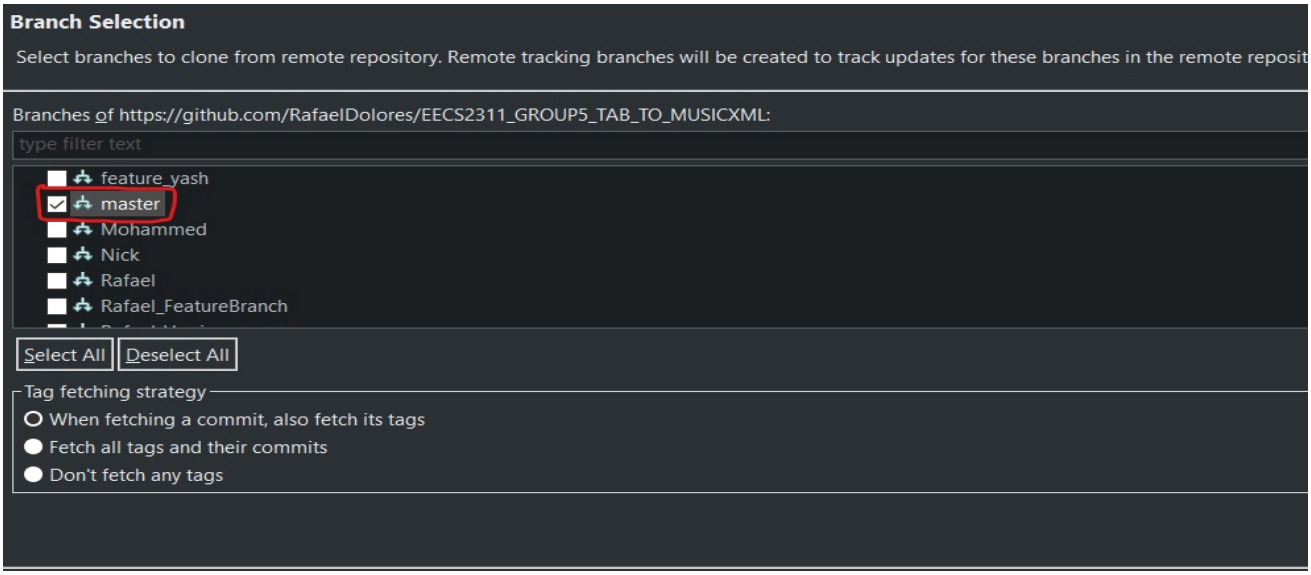


6. After this, the source git repository will be brought up. In the URI section paste in the following link https://github.com/RafaelDolores/EECS2311_GROUP5_TAB_TO_MUSICXML.

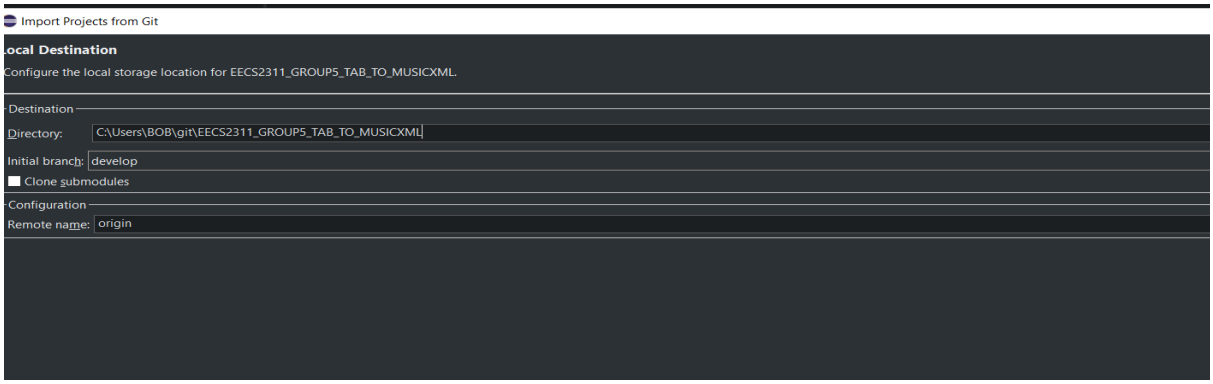


7. Now at the bottom, for Authentication enter in your GitHub Username and password. Clicking the “Store in Secure Store” will ensure eclipse will save your credentials for future use.

8. Once you click next, the different branches will appear on screen. For this project to work the **master** branch must be imported.



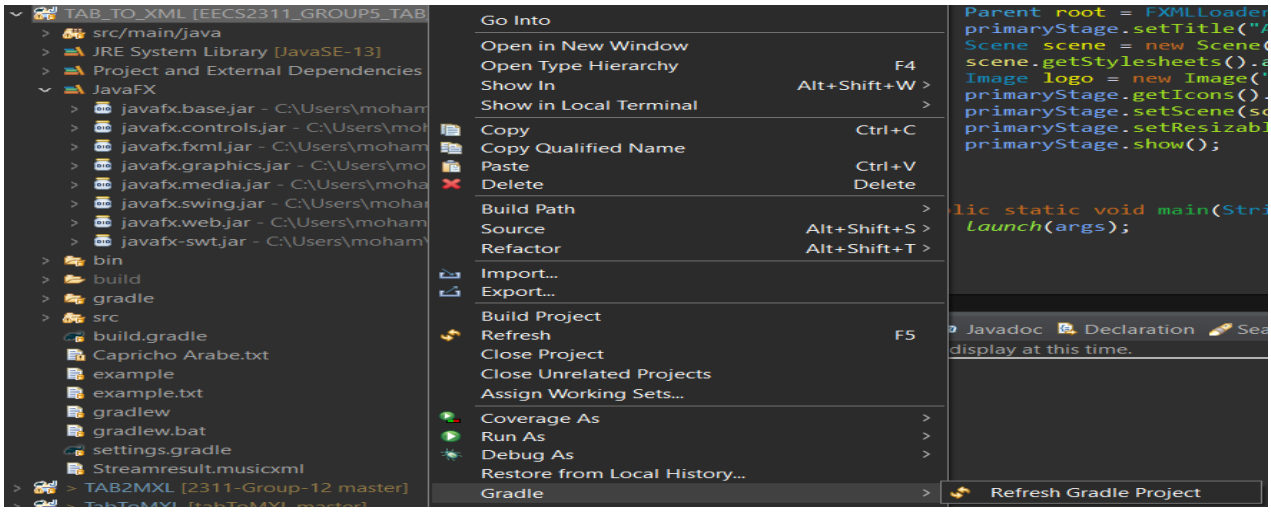
9. Once that is done, click next and now you must select a suitable directory to save this project.



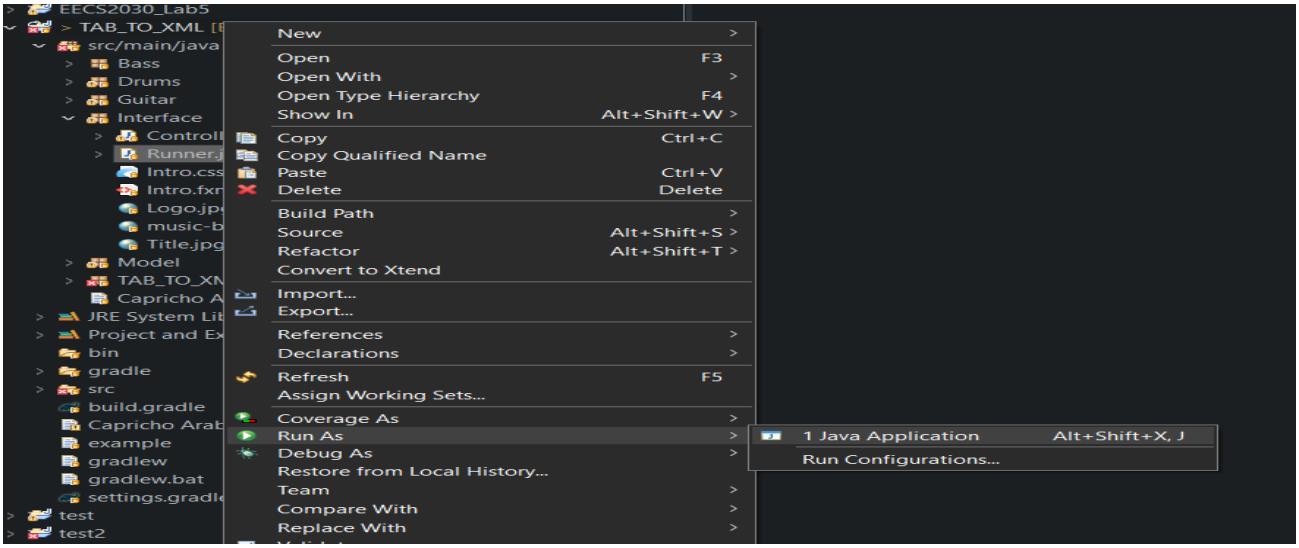
10. After this is completed, click next and then finish. The project is successfully imported.

RUNNING THE APPLICATION AS A JAVA APPLICATION

1. To run the project open “**TAB_TO_XML”**, then click on **“Gradle”** and then **“Refresh Gradle”**.

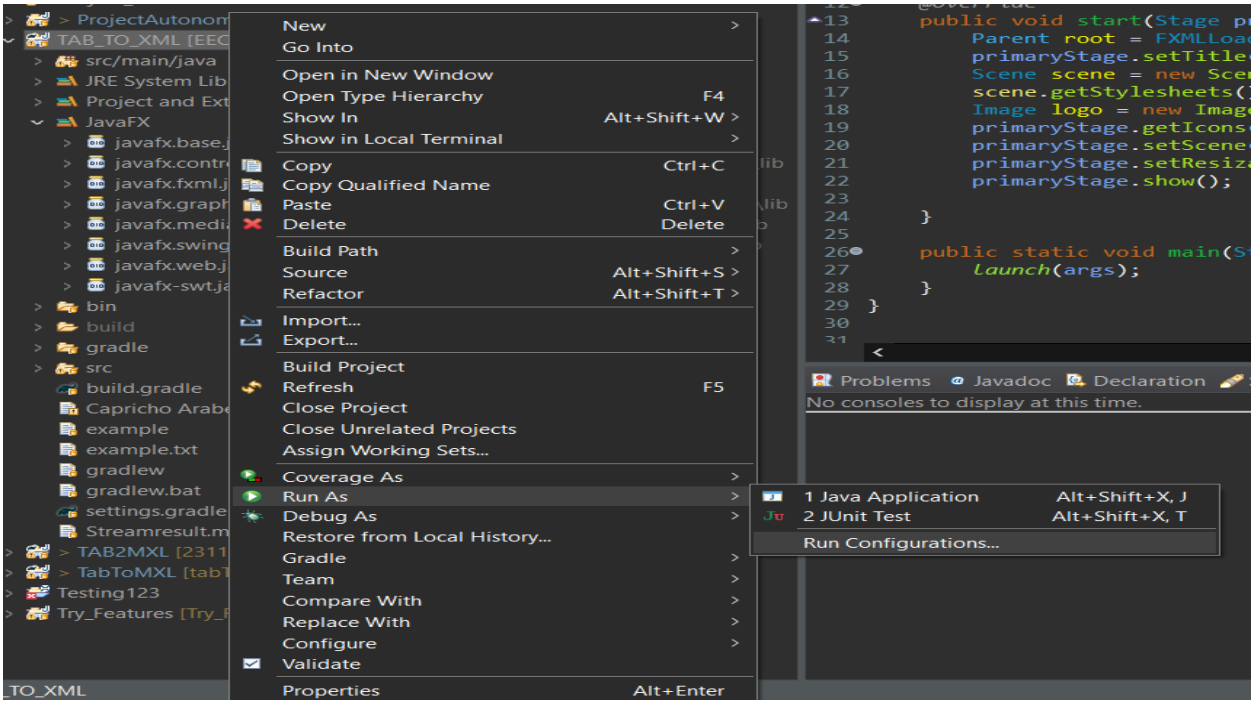


2. After you do that, open the package called **“Interface”** and right click on **“Runner.java”**. Then click **“Run as Java Application”,** and you will be able to run the application.

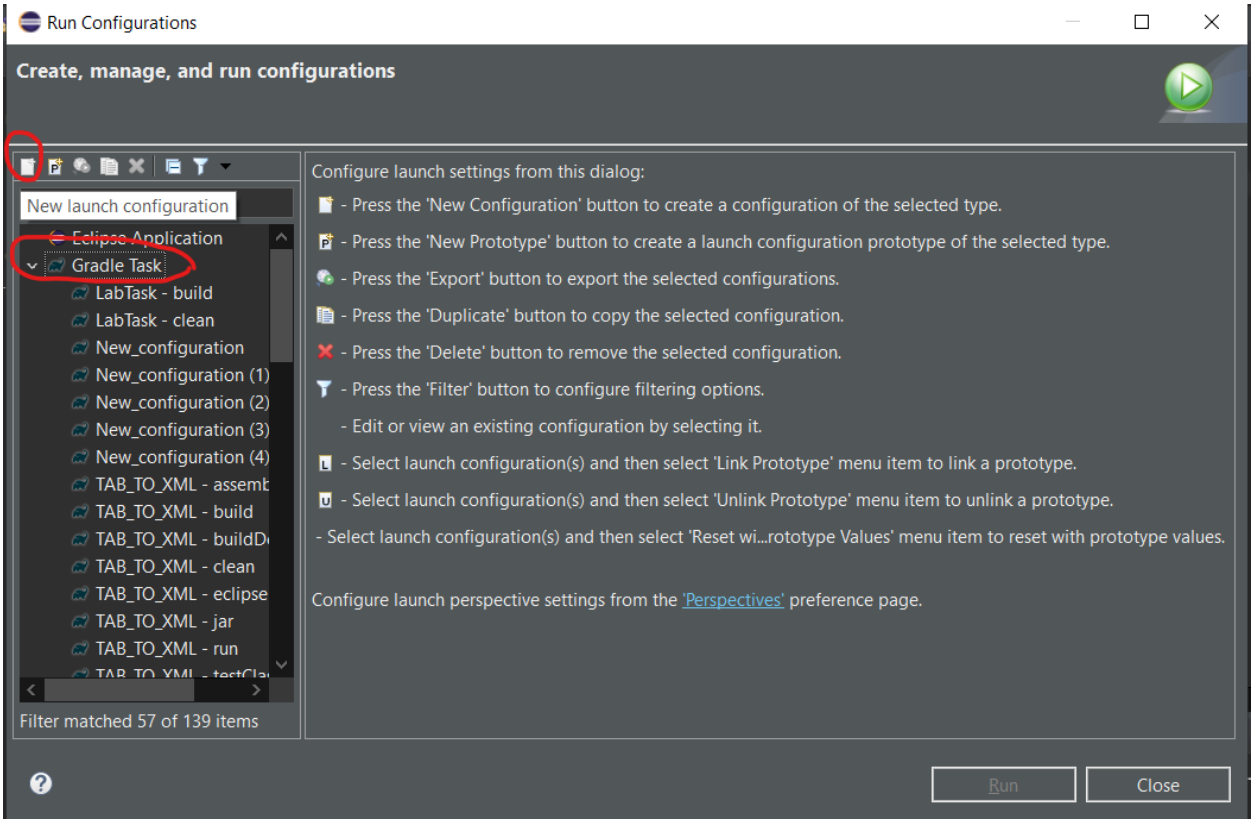


RUNNING THE APPLICATION AS A GRADLE PROJECT

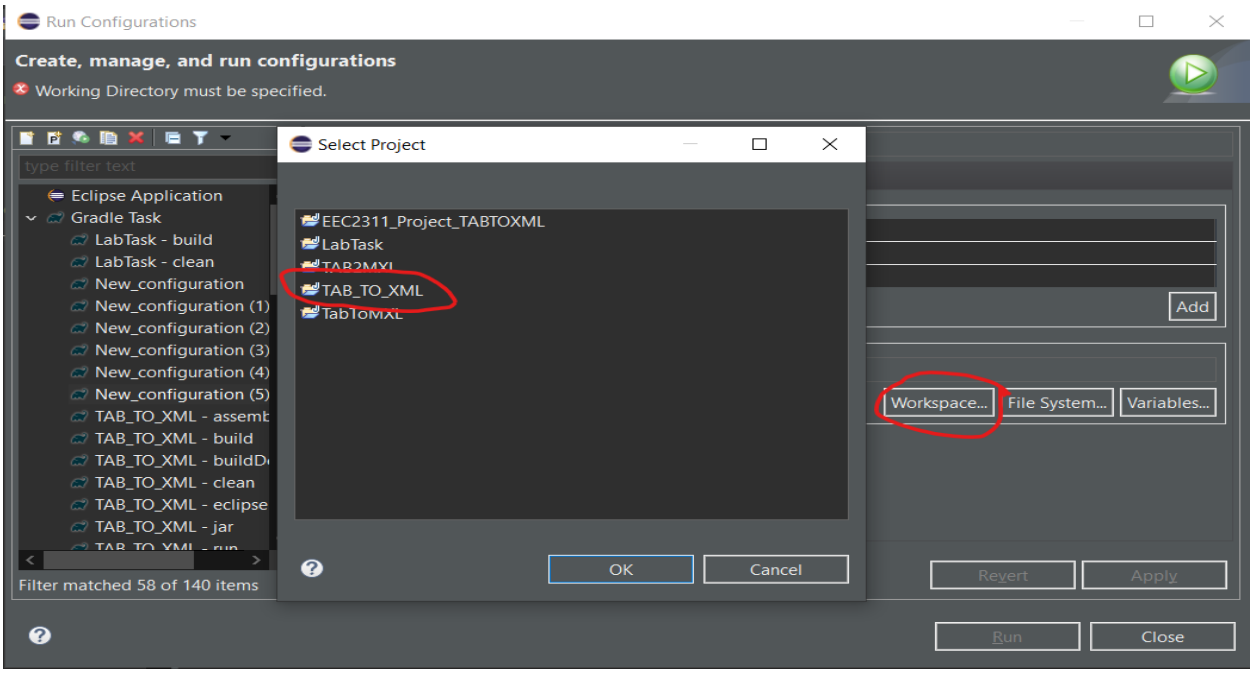
1. To run the project as a Gradle Project, you must first refresh Gradle as mentioned in the section above.
2. After that, you must right click on the project, hover on **"Run As.."** and click on **"Run Configurations"**.



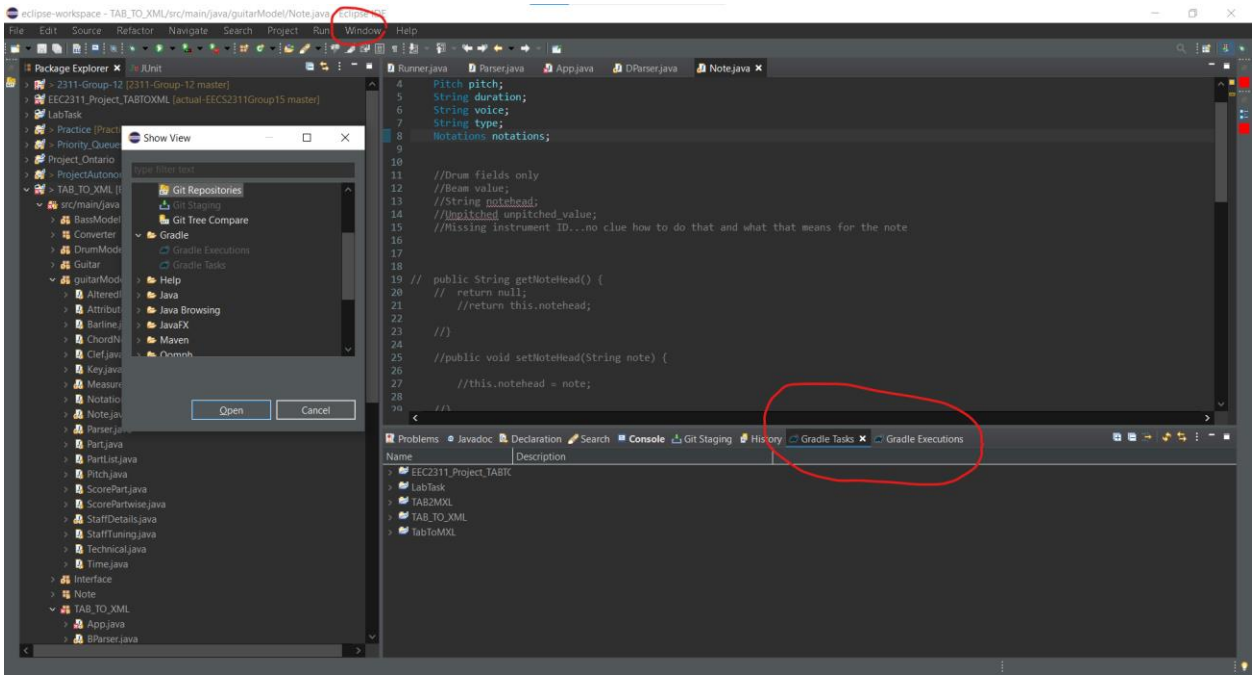
3. A new window will open. Scroll all the way to the top and select **"Gradle Tasks"** and make a new launch configuration.



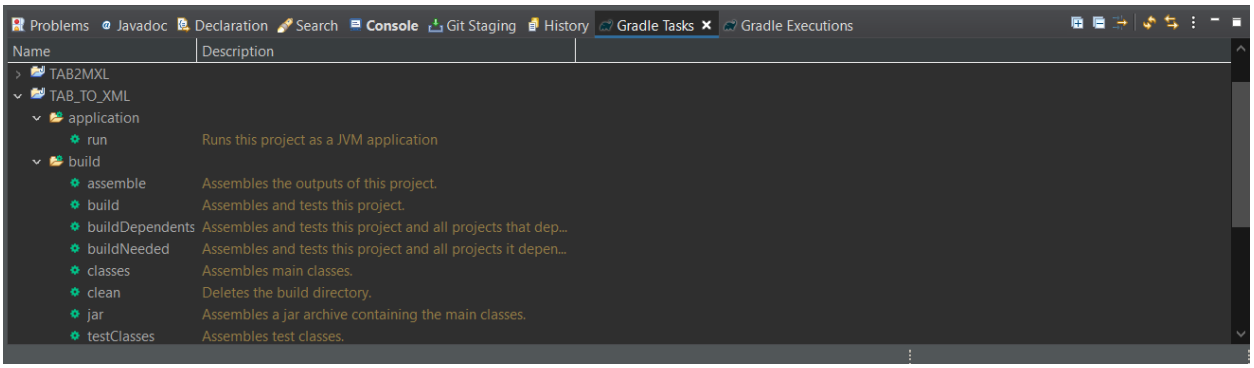
4. Once you make a new configuration, click on workspace, and choose this project, that is, **TAB_TO_XML**.



5. Once you run, the Gradle Execution tab should open up and there should be a Gradle Tasks tab at the bottom where the console is generally located. If in any case you do not see Gradle Tasks or Gradle Execution, then you can click on Window → Show View → Other → Gradle → Gradle Tasks/Gradle Execution on Eclipse.



6. Once you get Gradle Tasks onto your screen, just drop down “applications”, and click on run. If that does not work for some reason, then you can drop down “build” and build the project first before running.



RUNNING THE APPLICATION MANUALLY (LAST RESORT)

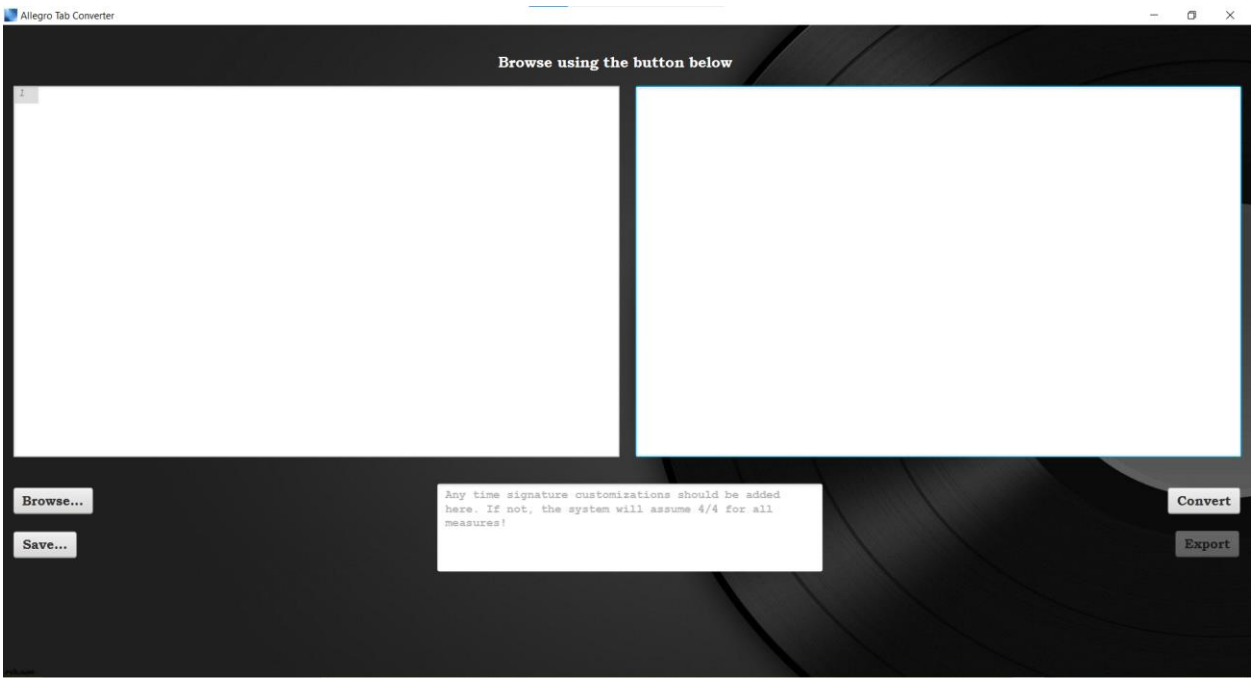
If you get the warning “Error: JavaFX runtime components are missing” after trying the above-mentioned steps, then you must import JavaFX separately. Follow these steps to resolve this problem.

1) Download Javafx and extract it in a location.
2) In Eclipse go to Window, preferences, Java, Build path, User Library.
3) Click New and then enter “javafx”.
4) Now click on it and then click on add external jars.
5) Now open the javafx folder and click on bins.
6) Now highlight all the jar files except the zip file at the bottom.
7) Click apply. Now right click on the project and go to build path and then configure build path.
8) Click on class path and then click add library.
9) Click on user library and then select javafx.
10) Apply the following.
11) The last step is to click on “run configuration” from the run drop down list.
12) You will then see “Arguments” and after clicking this “VM Arguments” at the bottom.In that field type in the path to the javafx folder.
13) As an example **--module-path "C:\Users\moham\Downloads\javafx-sdk-15.0.1\lib" --add-modules javafx.controls,javafx.fxml**.
14) Click apply. Now the problem should be solved.

GETTING STARTED WITH ALLEGRO TAB CONVERTER

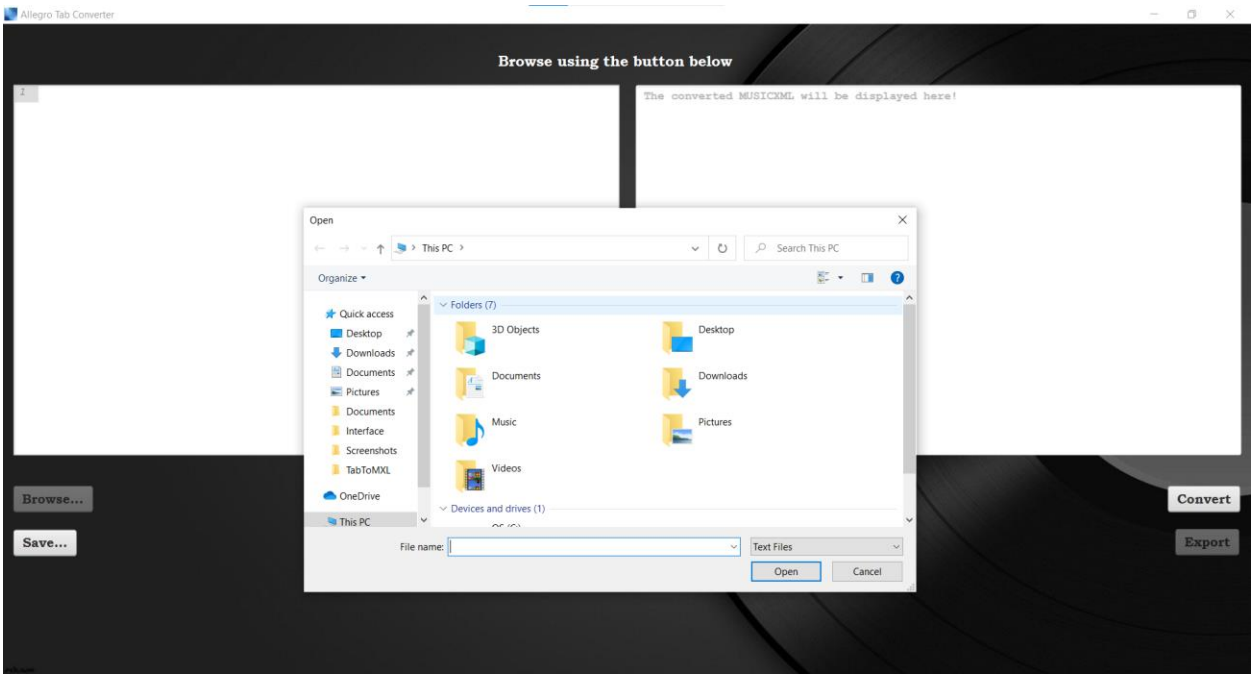
THE APPLICATION

This desktop application is user friendly and very simple to use. It consists of four buttons, each having a specific function. Please note that the application does not store any data provided, and it cannot access any file other than the one provided by you. Using it will not corrupt any file in your system. It also does not contain any element that might affect your eyesight. The application currently supports guitar, bass guitar and drum tablatures.

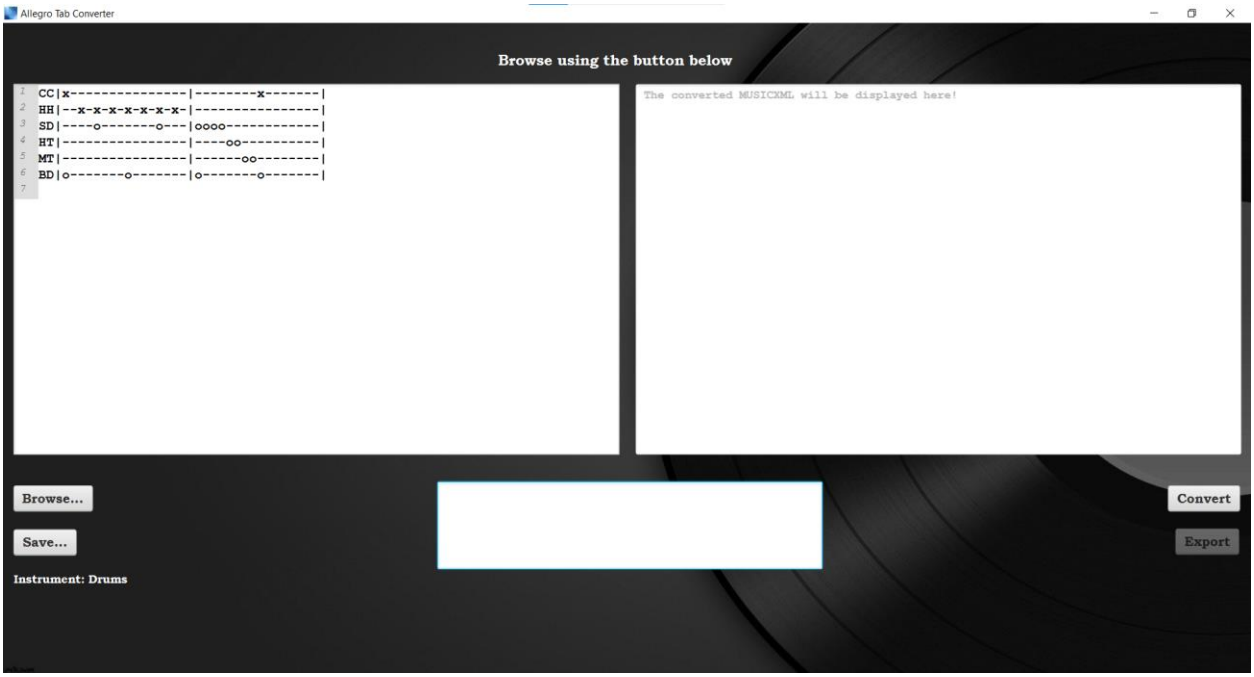


THE BROWSE AND SAVE BUTTON

The **Browse** button allows the user to browse through their file explorer and choose a file that they wish to convert to a MXL file. If you do not have a file that contains a tablature, but you have access to the tablature on a website, then the application allows you to paste that tablature onto the textbox directly without having to browse for a file.



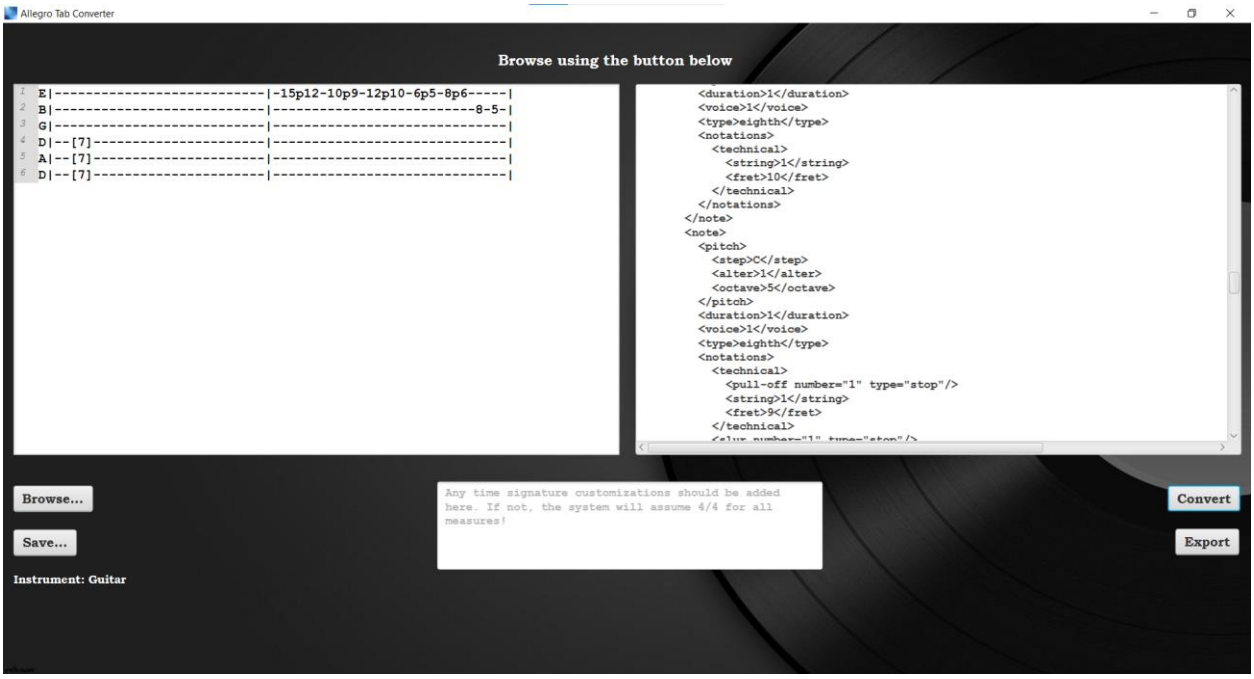
Once you choose a file, the application should display the contents of that file on the left text box. The application should also be able to detect the instrument once the user browses a file. If the user does not browse for a file, then the instrument is detected once the convert button is pressed.



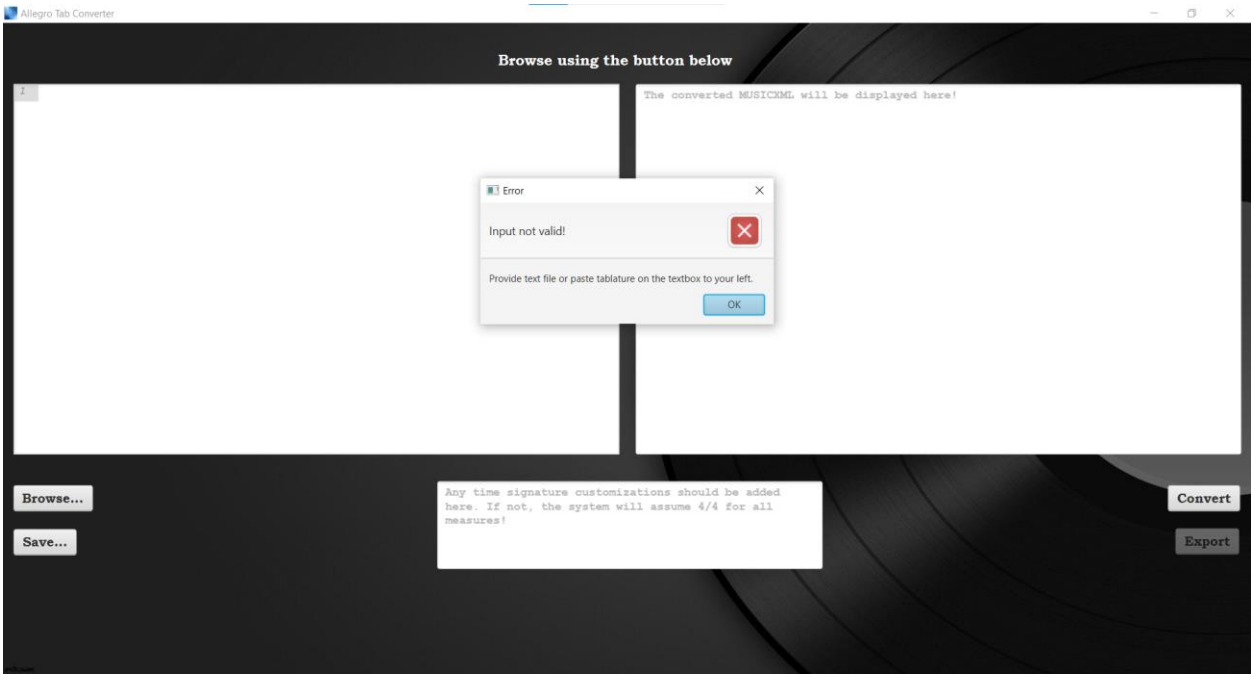
The user can edit the tablature that was browsed/pasted through this textbox. Afterwards, if they wish to save those edits, they can use the **Save** button to do so. If the user browsed for a file, the save button will save the edits on that file. However, if you would like to save edits without browsing, the user will ask you to save the file somewhere on your device, and then will proceed to save any edits hereafter on that file. *Note that the save button will be enabled once you browse for a file. If the user does not browse for a file, the Save button will remain disabled until the Convert button is pressed at least once.*

THE CONVERT BUTTON

The Convert button converts the given information browsed from your computer to an XML format which is displayed on the right text area of the application.

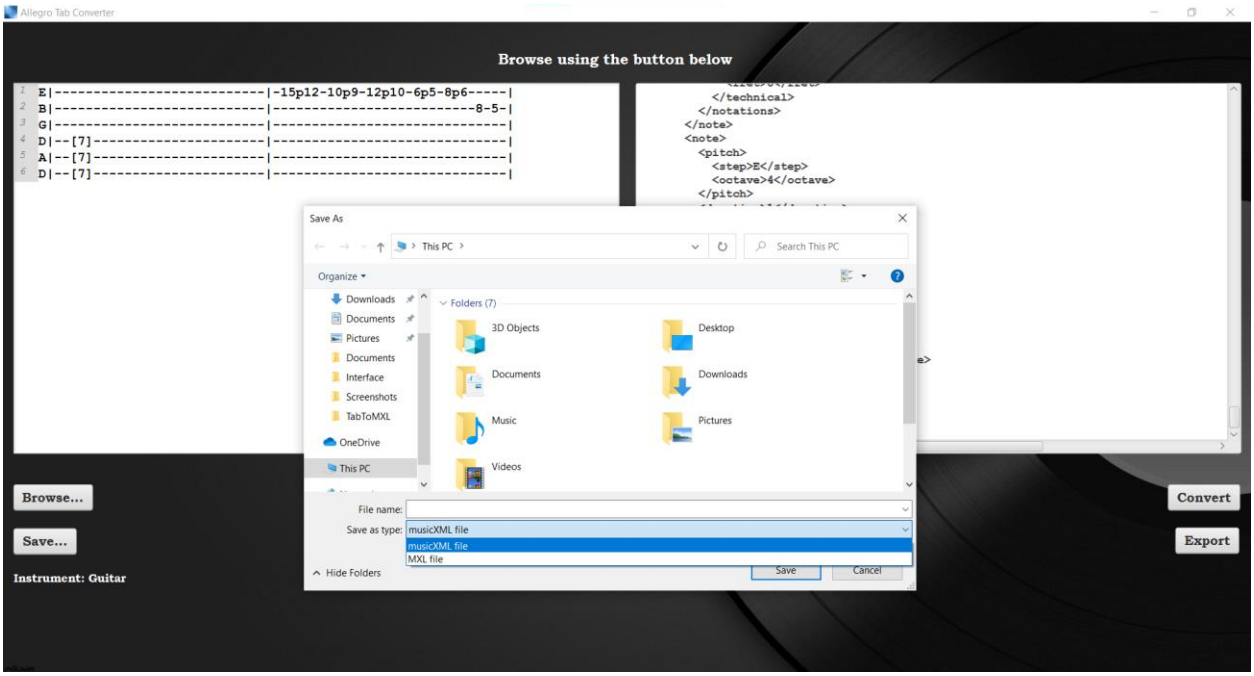


If you attempt to convert a file without browsing for one, the application will give you an error alert.

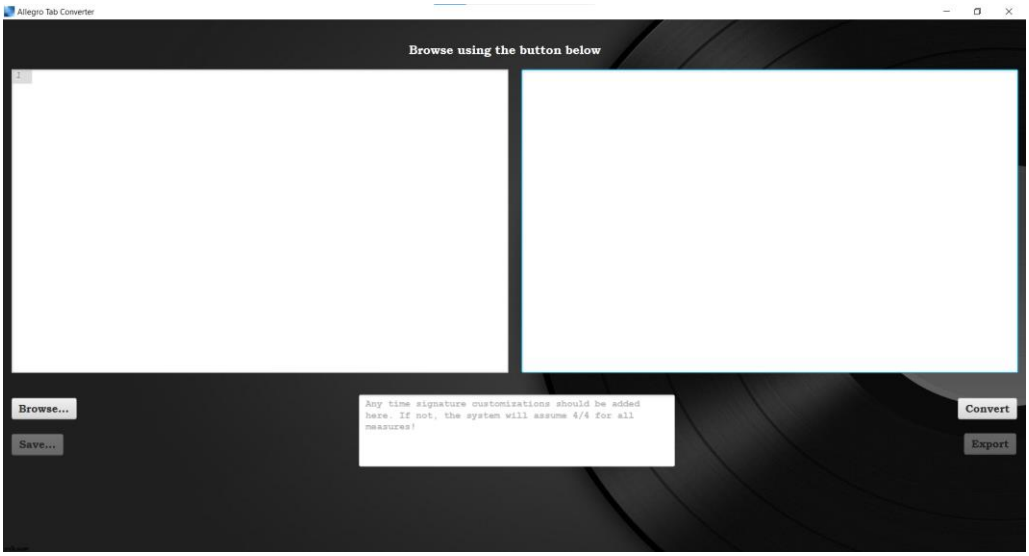


THE EXPORT BUTTON

This button allows the user to store the converted XML file on to their system. The file can be saved in either a musicXML file format, or a MXL file format.

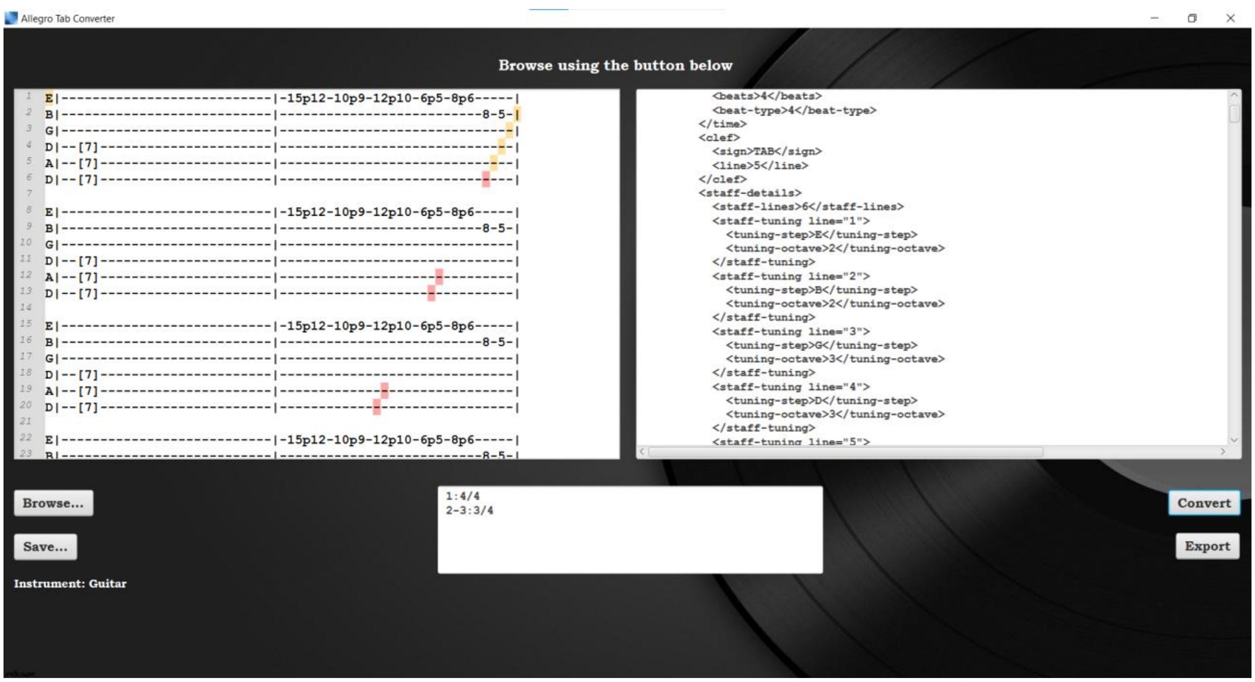


This button is initially disabled, and it will be enabled once the file has been converted.



THE CUSTOMIZATION TEXTBOX

This is referring to the textbox at the centre. On this textbox, the user is allowed to customize the tablature to any time signature it desires. The user can input a time signature for one measure, or a range of measures, as shown below. For one measure, the format is **measure:time-signature.** For a range of measures, the format is **start measure-end measure:time-signature.**



ERROR-HIGHLIGHTING SYSTEM

This system detects an error that occurs in the tablature that might affect the conversion of the system. The red highlight of the error detection system means that the length of the tablature is not correct, or the symbols are not implemented correctly. Some example cases for correct and incorrect implementations for the tablature symbols are shown below:

Correct Tablature	**Incorrect Tablature**
Length (Red Highlight): E|----------0-----|-0--------------| G|---------0---0---|-0--------------| B|-------1-------1-|-1--------------| D|-----2----------|-2--------------| A|---2------------|-2--------------| E|-0--------------|-0--------------|	Length (Red Highlight): E|----------0-----|-0-----------| G|---------0---0---|-0--------------| B|-------1-------1-|-1------------| D|-----2----------|-2----------------| A|---2------------|-2-----------| E|-0--------------|-0-------------|
Hammer-Ons (Red Highlight): E|----------0-----|-0--------------| G|---------0---0---|-0--------------| B|-------1h5-----1-|-1--------------| D|-----2----------|-2--------------| A|---2------------|-2--------------| E|-0--------------|-0--------------|	Hammer-Ons (Red Highlight): E|----------0-----|-0--------------| G|---------0h--0---|-h0-------------| B|-------1-------1-|-1--------------| D|-----2----------|-2--------------| A|---2------------|-2--------------| E|-0--------------|-0--------------|
Pull-Offs (Red Highlight): E|----------0-----|-0--------------| G|---------0---0---|-0--------------| B|-------1p6-----1-|-1--------------| D|-----2----------|-2--------------| A|---2------------|-2--------------| E|-0--------------|-0--------------|	Pull-Offs (Red Highlight): E|----------0-----|-0--------------| G|---------0p--0---|-0--------------| B|-------1-------1-|-p1-------------| D|-----2----------|-2--------------| A|---2------------|-2--------------| E|-0--------------|-0--------------|
Slides (Red Highlight): E|----------0-----|-0--------------| G|---------s0--0---|-0--------------| B|-------1-------1-|-1--------------| D|-----2----------|-2--------------| A|---2------------|-2--------------| E|-0--------------|-0--------------|	Slides (Red Highlight): E|----------0-----|-0--------------| G|---------s0s-0---|-0s-------------| B|-------1-------1-|-1--------------| D|-----2----------|-2--------------| A|---2------------|-2--------------| E|-0--------------|-0--------------|

Grace Notes (Red Highlight):	Grace Notes (Red Highlight):

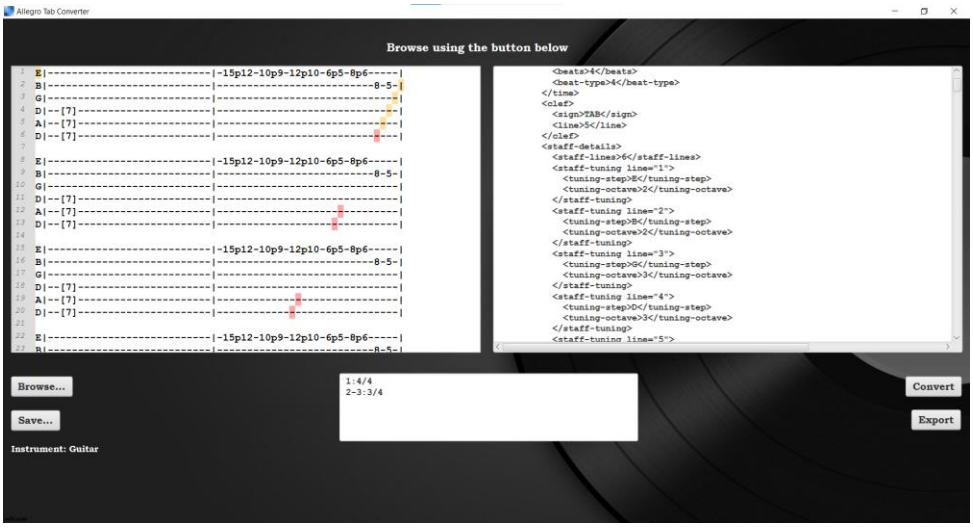
`|----------0-----|-0--------------|`
`|---------0---0---|-0--------------|`
`|-------g1------1-|-1--------------|`
`|-----2----------|-2--------------|`
`|---2------------|-2--------------|`
`|-0--------------|-0--------------|`
	`|----------0-----|-0--------------|`
	`|---------0---0---|-0--------------|`
	`|-------1-------1-|-1--------------|`
	`|-----2----------|-2--------------|`
	`|---2------------|-2--------------|`
	`|-0--------------|-0--------------|`

Harmonics (Red Highlight):	Harmonics (Red Highlight):

`|----------0-----|-0--------------|`
`|---------0---0---|-0--------------|`
`|-------[1]-----1-|-1--------------|`
`|-----2----------|-2--------------|`
`|---2------------|-2--------------|`
`|-0--------------|-0--------------|`
	`|----------0-----|-0--------------|`
	`|---------0---0---|-0--------------|`
	`|-------[1------1-|-[1-------------|`
	`|-----2----------|-2----[]--------|`
	`|---2------------|-2--------------|`
	`|-0--------------|-0--------------|`

This system shows a Yellow Highlight if unsupported symbols are used, for example, v (vibrato).

This detection system is partially implemented, which is why sometimes, it will show errors that do not exist in the tablature. The Allegro Tab Converter team works around the clock to provide for the users, and to ensure they have an amazing experience with the application. The next version of this software should include the error highlighting system.



LIMITATIONS

GUITAR AND BASS TABLATURE

Our system does not support the following symbols:

Symbols
b (Bend)
PM---- (Palm Muting)
~~/v (Vibrato)
X (Muted hits)
T (Tapping)

This system does not recognize the above symbols and will ignore them at the time of conversion. No XML tags will be formed for them.

DRUM TAB

Our system does not support the symbol ‘g’, which stands for a ghost hit. No XML tag will be formed for this symbol

EXAMPLE TABS AND OUTPUTS

SIMPLE GUITAR TAB

Input:

```
E|--1s5-------5-------------5-6h8p6-5-6-8-|-5-------5-------------5-6h8p6-5-6-8-|
B|--------6-------6-------8---------------|-----6-------6-------8---------------|
G|--------------------------------------- |--------------------------------------|
D|--------7-------7-----------------------|-----7-------7-----------------------|
A|------------8-------7-----------0-------|---------8-------7-----------0-------|
D|----0-----------------------------------|-0-----------------------------------|
```

Output:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE score-partwise PUBLIC "-//Recordare//DTD MusicXML 3.1 Partwise//EN"
"http://www.musicxml.org/dtds/partwise.dtd">
<score-partwise version="3.1">
  <part-list>
    <score-part id="P1">
      <part-name>Classical Guitar</part-name>
    </score-part>
  </part-list>
  <part id="P1">
    <measure number="1">
      <attributes>
        <divisions>3</divisions>
        <key>
          <fifths>0</fifths>
        </key>
        <time>
          <beats>4</beats>
          <beat-type>4</beat-type>
```

```
        </time>
        <clef>
          <sign>TAB</sign>
          <line>5</line>
        </clef>
        <staff-details>
          <staff-lines>6</staff-lines>
          <staff-tuning line="1">
            <tuning-step>E</tuning-step>
            <tuning-octave>2</tuning-octave>
          </staff-tuning>
          <staff-tuning line="2">
            <tuning-step>B</tuning-step>
            <tuning-octave>2</tuning-octave>
          </staff-tuning>
          <staff-tuning line="3">
            <tuning-step>G</tuning-step>
            <tuning-octave>3</tuning-octave>
          </staff-tuning>
          <staff-tuning line="4">
            <tuning-step>D</tuning-step>
            <tuning-octave>3</tuning-octave>
          </staff-tuning>
          <staff-tuning line="5">
            <tuning-step>A</tuning-step>
            <tuning-octave>3</tuning-octave>
          </staff-tuning>
          <staff-tuning line="6">
            <tuning-step>D</tuning-step>
            <tuning-octave>4</tuning-octave>
          </staff-tuning>
```

```
        </staff-details>
      </attributes>
      <note>
        <pitch>
          <step>A</step>
          <octave>2</octave>
        </pitch>
        <duration>8</duration>
        <voice>1</voice>
        <type>whole</type>
        <notations>
          <technical>
            <harmonic>
              <natural/>
            </harmonic>
            <string>6</string>
            <fret>7</fret>
          </technical>
        </notations>
      </note>
      <note>
        <chord/>
        <pitch>
          <step>E</step>
          <octave>3</octave>
        </pitch>
        <duration>8</duration>
        <voice>1</voice>
        <type>whole</type>
        <notations>
          <technical>
```

```
            <harmonic>
              <natural/>
            </harmonic>
            <string>5</string>
            <fret>7</fret>
          </technical>
        </notations>
      </note>
      <note>
        <chord/>
        <pitch>
          <step>A</step>
          <octave>3</octave>
        </pitch>
        <duration>8</duration>
        <voice>1</voice>
        <type>whole</type>
        <notations>
          <technical>
            <harmonic>
              <natural/>
            </harmonic>
            <string>4</string>
            <fret>7</fret>
          </technical>
        </notations>
      </note>
      <barline location="right">
        <bar-style>light-heavy</bar-style>
      </barline>
    </measure>
```

```
    <measure number="2">
      <attributes>
        <divisions>3</divisions>
        <time>
          <beats>4</beats>
          <beat-type>4</beat-type>
        </time>
        <staff-details>
          <staff-lines>6</staff-lines>
          <staff-tuning line="1">
            <tuning-step>E</tuning-step>
            <tuning-octave>2</tuning-octave>
          </staff-tuning>
          <staff-tuning line="2">
            <tuning-step>B</tuning-step>
            <tuning-octave>2</tuning-octave>
          </staff-tuning>
          <staff-tuning line="3">
            <tuning-step>G</tuning-step>
            <tuning-octave>3</tuning-octave>
          </staff-tuning>
          <staff-tuning line="4">
            <tuning-step>D</tuning-step>
            <tuning-octave>3</tuning-octave>
          </staff-tuning>
          <staff-tuning line="5">
            <tuning-step>A</tuning-step>
            <tuning-octave>3</tuning-octave>
          </staff-tuning>
          <staff-tuning line="6">
            <tuning-step>D</tuning-step>
```

```
            <tuning-octave>4</tuning-octave>
          </staff-tuning>
        </staff-details>
      </attributes>
      <note>
        <pitch>
          <step>F</step>
          <octave>4</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>15</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>F</step>
          <octave>4</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
            <pull-off number="1" type="stop"/>
            <string>1</string>
```

```
            <fret>12</fret>
          </technical>
          <slur number="1" type="stop"/>
        </notations>
      </note>
      <note>
        <pitch>
          <step>F</step>
          <octave>4</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>10</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <alter>1</alter>
          <octave>5</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
```

```
            <pull-off number="1" type="stop"/>
            <string>1</string>
            <fret>9</fret>
          </technical>
          <slur number="1" type="stop"/>
        </notations>
      </note>
      <note>
        <pitch>
          <step>F</step>
          <octave>4</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>12</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>F</step>
          <octave>4</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
```

```
          <technical>
            <pull-off number="1" type="stop"/>
            <string>1</string>
            <fret>10</fret>
          </technical>
          <slur number="1" type="stop"/>
        </notations>
      </note>
      <note>
        <pitch>
          <step>A</step>
          <alter>1</alter>
          <octave>4</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
            <pull-off number="1" type="start">P</pull-off>
            <string>1</string>
            <fret>6</fret>
          </technical>
          <slur number="1" type="start"/>
        </notations>
      </note>
      <note>
        <pitch>
          <step>A</step>
          <octave>4</octave>
        </pitch>
```

```
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
            <pull-off number="1" type="stop"/>
            <string>1</string>
            <fret>5</fret>
          </technical>
          <slur number="1" type="stop"/>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <octave>5</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
            <pull-off number="1" type="start">P</pull-off>
            <string>1</string>
            <fret>8</fret>
          </technical>
          <slur number="1" type="start"/>
        </notations>
      </note>
      <note>
        <pitch>
```

```
          <step>A</step>
          <alter>1</alter>
          <octave>4</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
            <pull-off number="1" type="stop"/>
            <string>1</string>
            <fret>6</fret>
          </technical>
          <slur number="1" type="stop"/>
        </notations>
      </note>
      <note>
        <pitch>
          <step>G</step>
          <octave>4</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
            <string>2</string>
            <fret>8</fret>
          </technical>
        </notations>
      </note>
```

```
      <note>
        <pitch>
          <step>E</step>
          <octave>4</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>eighth</type>
        <notations>
          <technical>
            <string>2</string>
            <fret>5</fret>
          </technical>
        </notations>
      </note>
      <barline location="right">
        <bar-style>light-heavy</bar-style>
      </barline>
    </measure>
  </part>
</score-partwise>
```

SIMPLE DRUM TAB

Input:

```
C |x--------x--------|---------x--x-----|x--------x--------|---------x--x-----|
R |------x-----x--x--|x--x-xx-----------|---x-xx-----x-xx--|x--x-xx-----------|
SD|---------o--------|---------o--o-----|---------o--------|---------o--o-----|
FT|------------------|--------------o-o-|------------------|--------------oo--|
B |o----------------o|o----------o------|o-----------------|o----------oo-----|
```

Output:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE score-partwise PUBLIC "-//Recordare//DTD MusicXML 3.1 Partwise//EN"
"http://www.musicxml.org/dtds/partwise.dtd">
<score-partwise version="3.1">
  <part-list>
    <score-part id="P1">
      <part-name>Drumset</part-name>
      <score-instrument id="P1-I36">
        <instrument-name>Bass Drum 1</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I37">
        <instrument-name>Bass Drum 2</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I38">
        <instrument-name>Side Stick</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I39">
        <instrument-name>Snare</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I42">
        <instrument-name>Low Floor Tom</instrument-name>
      </score-instrument>
```

```
      <score-instrument id="P1-I43">
        <instrument-name>Closed Hi-Hat</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I44">
        <instrument-name>High Floor Tom</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I45">
        <instrument-name>Pedal Hi-Hat</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I46">
        <instrument-name>Low Tom</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I47">
        <instrument-name>Open Hi-Hat</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I48">
        <instrument-name>Low-Mid Tom</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I49">
        <instrument-name>Hi-Mid Tom</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I50">
        <instrument-name>Crash Cymbal 1</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I51">
        <instrument-name>High Tom</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I52">
        <instrument-name>Ride Cymbal 1</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I53">
```

```
        <instrument-name>Chinese Cymbal</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I54">
        <instrument-name>Ride Bell</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I55">
        <instrument-name>Tambourine</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I56">
        <instrument-name>Splash Cymbal</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I57">
        <instrument-name>Cowbell</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I58">
        <instrument-name>Crash Cymbal 2</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I60">
        <instrument-name>Ride Cymbal 2</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I64">
        <instrument-name>Open Hi Conga</instrument-name>
      </score-instrument>
      <score-instrument id="P1-I65">
        <instrument-name>Low Conga</instrument-name>
      </score-instrument>
    </score-part>
  </part-list>
  <part id="P1">
    <measure number="1">
      <attributes>
```

```
        <divisions>4</divisions>
        <key>
          <fifths>0</fifths>
        </key>
        <time>
          <beats>4</beats>
          <beat-type>4</beat-type>
        </time>
        <clef>
          <sign>percussion</sign>
          <line>2</line>
        </clef>
      </attributes>
      <note>
        <unpitched>
          <display-step>A</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>6</duration>
        <instrument id="P1-I50"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
```

```
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>C</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I39"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
      </note>
      <note>
        <chord/>
        <unpitched>
          <display-step>A</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I50"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
```

```
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <notehead>x</notehead>
        <beam number="1">begin</beam>
      </note>
      <backup>
        <duration>17</duration>
      </backup>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>4</display-octave>
```

```
        </unpitched>
        <duration>16</duration>
        <instrument id="P1-I36"/>
        <voice>2</voice>
        <type>whole</type>
        <stem>down</stem>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>4</display-octave>
        </unpitched>
        <duration>1</duration>
        <instrument id="P1-I36"/>
        <voice>2</voice>
        <type>16th</type>
        <stem>down</stem>
      </note>
    </measure>
    <measure number="2">
      <attributes>
        <divisions>4</divisions>
        <time>
          <beats>4</beats>
          <beat-type>4</beat-type>
        </time>
      </attributes>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
```

```
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <notehead>x</notehead>
        <beam number="1">begin</beam>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>1</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type>16th</type>
        <stem>up</stem>
```

```
        <notehead>x</notehead>
        <beam number="1">begin</beam>
        <beam number="2">begin</beam>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>C</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I39"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
      </note>
      <note>
        <chord/>
        <unpitched>
          <display-step>A</display-step>
```

```
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I50"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>C</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I39"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <beam number="1">begin</beam>
      </note>
      <note>
        <chord/>
        <unpitched>
          <display-step>A</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I50"/>
        <voice>1</voice>
        <type>eighth</type>
```

```
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>A</display-step>
          <display-octave>4</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I42"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <beam number="1">continue</beam>
      </note>
      <note>
        <unpitched>
          <display-step>A</display-step>
          <display-octave>4</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I42"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <beam number="1">end</beam>
      </note>
      <backup>
        <duration>17</duration>
      </backup>
      <note>
```

```
        <unpitched>
          <display-step>F</display-step>
          <display-octave>4</display-octave>
        </unpitched>
        <duration>11</duration>
        <instrument id="P1-I36"/>
        <voice>2</voice>
        <type></type>
        <stem>down</stem>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>4</display-octave>
        </unpitched>
        <duration>7</duration>
        <instrument id="P1-I36"/>
        <voice>2</voice>
        <type></type>
        <stem>down</stem>
      </note>
    </measure>
    <measure number="3">
      <attributes>
        <divisions>4</divisions>
        <time>
          <beats>4</beats>
          <beat-type>4</beat-type>
        </time>
      </attributes>
      <note>
```

```
        <unpitched>
          <display-step>A</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I50"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <notehead>x</notehead>
        <beam number="1">begin</beam>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>1</duration>
        <instrument id="P1-I43"/>
```

```
        <voice>1</voice>
        <type>16th</type>
        <stem>up</stem>
        <notehead>x</notehead>
        <beam number="1">begin</beam>
        <beam number="2">begin</beam>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>C</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I39"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
      </note>
      <note>
```

```
        <chord/>
        <unpitched>
          <display-step>A</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I50"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <notehead>x</notehead>
        <beam number="1">begin</beam>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>1</duration>
```

```
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type>16th</type>
        <stem>up</stem>
        <notehead>x</notehead>
        <beam number="1">begin</beam>
        <beam number="2">begin</beam>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <backup>
        <duration>18</duration>
      </backup>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>4</display-octave>
        </unpitched>
        <duration>16</duration>
        <instrument id="P1-I36"/>
        <voice>2</voice>
```

```
        <type>whole</type>
        <stem>down</stem>
      </note>
    </measure>
    <measure number="4">
      <attributes>
        <divisions>4</divisions>
        <time>
          <beats>4</beats>
          <beat-type>4</beat-type>
        </time>
      </attributes>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I43"/>
```

```
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <notehead>x</notehead>
        <beam number="1">begin</beam>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>1</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type>16th</type>
        <stem>up</stem>
        <notehead>x</notehead>
        <beam number="1">begin</beam>
        <beam number="2">begin</beam>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I43"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
        <notehead>x</notehead>
```

```
      </note>
      <note>
        <unpitched>
          <display-step>C</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I39"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
      </note>
      <note>
        <chord/>
        <unpitched>
          <display-step>A</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I50"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>C</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
```

```
        <instrument id="P1-I39"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <beam number="1">begin</beam>
      </note>
      <note>
        <chord/>
        <unpitched>
          <display-step>A</display-step>
          <display-octave>5</display-octave>
        </unpitched>
        <duration>2</duration>
        <instrument id="P1-I50"/>
        <voice>1</voice>
        <type>eighth</type>
        <stem>up</stem>
        <notehead>x</notehead>
      </note>
      <note>
        <unpitched>
          <display-step>A</display-step>
          <display-octave>4</display-octave>
        </unpitched>
        <duration>1</duration>
        <instrument id="P1-I42"/>
        <voice>1</voice>
        <type>16th</type>
        <stem>up</stem>
        <beam number="1">begin</beam>
        <beam number="2">begin</beam>
```

```
      </note>
      <note>
        <unpitched>
          <display-step>A</display-step>
          <display-octave>4</display-octave>
        </unpitched>
        <duration>3</duration>
        <instrument id="P1-I42"/>
        <voice>1</voice>
        <type></type>
        <stem>up</stem>
      </note>
      <backup>
        <duration>17</duration>
      </backup>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>4</display-octave>
        </unpitched>
        <duration>11</duration>
        <instrument id="P1-I36"/>
        <voice>2</voice>
        <type></type>
        <stem>down</stem>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>4</display-octave>
        </unpitched>
```

```
        <duration>1</duration>
        <instrument id="P1-I36"/>
        <voice>2</voice>
        <type>16th</type>
        <stem>down</stem>
      </note>
      <note>
        <unpitched>
          <display-step>F</display-step>
          <display-octave>4</display-octave>
        </unpitched>
        <duration>1</duration>
        <instrument id="P1-I36"/>
        <voice>2</voice>
        <type>16th</type>
        <stem>down</stem>
      </note>
      <note>
        <rest/>
        <duration>7</duration>
        <voice>2</voice>
        <type></type>
      </note>
      <backwardBarline location="right">
        <bar-style>light-heavy</bar-style>
      </backwardBarline>
    </measure>
  </part>
</score-partwise>
```

SIMPLE BASS TAB

Input:

```
|--1s5-------5-------------5-6h8p6-5-6-8-|-5-------5-------------5-6h8p6-5-6-8-|
|--------6-------6-------8---------------|-----6-------6-------8---------------|
|----------------------------------------|-------------------------------------|
|--------7-------7-----------------------|-----7-------7-----------------------|
```

Output:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE score-partwise PUBLIC "-//Recordare//DTD MusicXML 3.1 Partwise//EN"
"http://www.musicxml.org/dtds/partwise.dtd">
<score-partwise version="3.1">
  <part-list>
    <score-part id="P1">
      <part-name>Bass Guitar</part-name>
    </score-part>
  </part-list>
  <part id="P1">
    <measure number="1">
      <attributes>
        <divisions>10</divisions>
        <key>
          <fifths>0</fifths>
        </key>
        <time>
          <beats>4</beats>
          <beat-type>4</beat-type>
        </time>
        <clef>
          <sign>TAB</sign>
          <line>2</line>
```

```
        </clef>
        <staff-details>
          <staff-lines>4</staff-lines>
          <staff-tuning line="1">
            <tuning-step>E</tuning-step>
            <tuning-octave>1</tuning-octave>
          </staff-tuning>
          <staff-tuning line="2">
            <tuning-step>A</tuning-step>
            <tuning-octave>1</tuning-octave>
          </staff-tuning>
          <staff-tuning line="3">
            <tuning-step>D</tuning-step>
            <tuning-octave>2</tuning-octave>
          </staff-tuning>
          <staff-tuning line="4">
            <tuning-step>G</tuning-step>
            <tuning-octave>3</tuning-octave>
          </staff-tuning>
        </staff-details>
      </attributes>
      <note>
        <pitch>
          <step>G</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
```

```
          <slide number="1" type="start"/>
          <technical>
            <string>1</string>
            <fret>1</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <slide number="1" type="stop"/>
          <technical>
            <string>1</string>
            <fret>5</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>B</step>
          <octave>1</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
```

```
        <notations>
          <technical>
            <string>4</string>
            <fret>7</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>G</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>2</string>
            <fret>6</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
```

```
        <notations>
          <technical>
            <string>1</string>
            <fret>5</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>B</step>
          <octave>1</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>4</string>
            <fret>7</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>G</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
```

```
        <notations>
          <technical>
            <string>2</string>
            <fret>6</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>A</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>2</string>
            <fret>8</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
```

```
        <notations>
          <technical>
            <string>1</string>
            <fret>5</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <hammer-on number="1" type="start">H</hammer-on>
            <string>1</string>
            <fret>6</fret>
          </technical>
          <slur number="1" type="start"/>
        </notations>
      </note>
      <note>
        <pitch>
          <step>D</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
```

```
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <pull-off number="1" type="start">P</pull-off>
            <hammer-on number="1" type="stop"/>
            <string>1</string>
            <fret>8</fret>
          </technical>
          <slur number="1" type="stop"/>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <pull-off number="1" type="stop"/>
            <string>1</string>
            <fret>6</fret>
          </technical>
          <slur number="1" type="stop"/>
        </notations>
      </note>
```

```
      <note>
        <pitch>
          <step>C</step>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>5</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>6</fret>
          </technical>
        </notations>
      </note>
```

```
      <note>
        <pitch>
          <step>D</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>8</fret>
          </technical>
        </notations>
      </note>
      <barline location="right">
        <bar-style>light-heavy</bar-style>
      </barline>
    </measure>
    <measure number="2">
      <attributes>
        <divisions>9</divisions>
        <time>
          <beats>4</beats>
          <beat-type>4</beat-type>
        </time>
        <staff-details>
          <staff-lines>4</staff-lines>
          <staff-tuning line="1">
            <tuning-step>E</tuning-step>
```

```
            <tuning-octave>1</tuning-octave>
          </staff-tuning>
          <staff-tuning line="2">
            <tuning-step>A</tuning-step>
            <tuning-octave>1</tuning-octave>
          </staff-tuning>
          <staff-tuning line="3">
            <tuning-step>D</tuning-step>
            <tuning-octave>2</tuning-octave>
          </staff-tuning>
          <staff-tuning line="4">
            <tuning-step>G</tuning-step>
            <tuning-octave>3</tuning-octave>
          </staff-tuning>
        </staff-details>
      </attributes>
      <note>
        <pitch>
          <step>C</step>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>5</fret>
          </technical>
        </notations>
      </note>
```

```
      <note>
        <pitch>
          <step>B</step>
          <octave>1</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>4</string>
            <fret>7</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>G</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>2</string>
            <fret>6</fret>
          </technical>
        </notations>
      </note>
```

```
      <note>
        <pitch>
          <step>C</step>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>5</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>B</step>
          <octave>1</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>4</string>
            <fret>7</fret>
          </technical>
        </notations>
      </note>
      <note>
```

```
        <pitch>
          <step>G</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>2</string>
            <fret>6</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>A</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>2</string>
            <fret>8</fret>
          </technical>
        </notations>
      </note>
```

```
      <note>
        <pitch>
          <step>C</step>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>5</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <hammer-on number="1" type="start">H</hammer-on>
            <string>1</string>
            <fret>6</fret>
          </technical>
          <slur number="1" type="start"/>
```

```
        </notations>
      </note>
      <note>
        <pitch>
          <step>D</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <pull-off number="1" type="start">P</pull-off>
            <hammer-on number="1" type="stop"/>
            <string>1</string>
            <fret>8</fret>
          </technical>
          <slur number="1" type="stop"/>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
```

```
          <technical>
            <pull-off number="1" type="stop"/>
            <string>1</string>
            <fret>6</fret>
          </technical>
          <slur number="1" type="stop"/>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>5</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>C</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
```

```
        <type>32nd</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>6</fret>
          </technical>
        </notations>
      </note>
      <note>
        <pitch>
          <step>D</step>
          <alter>1</alter>
          <octave>2</octave>
        </pitch>
        <duration>1</duration>
        <voice>1</voice>
        <type>32nd</type>
        <notations>
          <technical>
            <string>1</string>
            <fret>8</fret>
          </technical>
        </notations>
      </note>
      <barline location="right">
        <bar-style>light-heavy</bar-style>
      </barline>
    </measure>
  </part>
</score-partwise>
```

CONTACT INFORMATION

If you have any questions, concerns or comments regarding the software or its functionalities, or any complaints regarding it, please feel free to contact any one of the developers:

Shawn Verma – vermas@my.yorku.ca

Junhyeong Park – oakr0414@my.yorku.ca

Mohammed Fulwala – momo01@my.yorku.ca

Rafael Dolores – rafd47@my.yorku.ca

Yashraj Rathore – yash187@my.yorku.ca