1. Project Name: Midi Piano

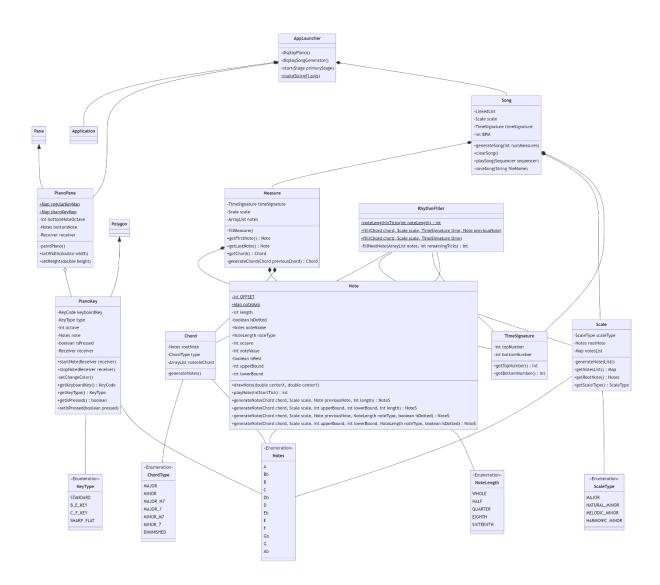
Team Name: Team Orange Juice Team Members: Jason Kauppila

2. In this project, I am trying to build a music program using midi. I want to be able to generate a random "song" (collection of random notes which may or may not sound musically pleasing due to the factor of randomness) which can be generated and played in the application, and also saved as a .mid file. (If time permits, I would like to add the ability to open and play midi files from an input file path.) I wish to build such a program because the randomly generated music may be able to serve as inspiration in song writing, and storing it as a midi file allows it to be easily

openable in existing notation software.

It will be useful for providing musicians with a place to seek inspiration when writing songs by both randomly generating music, and allowing them to use a keyboard for when they want to experiment playing a melody themselves (rather than them having to go somewhere else to find a musical keyboard when the spark of inspiration hits them). To use the song generator, there will be the necessary buttons and text fields necessary to get appropriate information when generating and saving the randomly generated music. To use the musical keyboard, the user may click the keys with their mouse or enter the appropriate key on their computer's keyboard. The user will also be able to use their mouse to press buttons to change certain settings of the musical keyboard.

# 3. Initial UML Diagram:



## 4. Plan and estimate of effort:

# Week 1 (November 1-7):

Plan: Implement the keys of the keyboard

Effort Estimate: Tons of effort

# Week 2 (November 8-14):

Plan: Implement buttons to adjust keyboard settings and finalize the keyboard

**GUI** 

Effort Estimate: Medium amount of effort (in best case scenario)

## Week 3 (November 15-21):

Plan: Implement the random "song" generator

Effort Estimate: Lots of effort

## Week 4 (November 22-28):

Plan: Implement GUI for random "song" generator, adjust weights for random

"song" generator, debug project Effort Estimate: Tons of effort