Team Name: Snowfall
Group Members: Justin Millette (jmille36), Stephanie Wilson (swilso17), and Rachel Bonanno (rbonan02)
Planned Weekly Meeting Time: Saturday sometime between 2 and 7pm
Project Description: Multiplayer synced vertical scrolling rhythm game.
Minimum Deliverable:

- Client application that connects to a server and waits for the server to start the song.
- Server ensures that both clients start at the same time, so there is no delay between the two players.
- Clients will confirm their "readiness" manually.
- During the song, scores will update atomically, based on the accuracy of the player's performance.
- At the end, a screen containing information about the results will be displayed.
- At minimum, this will be a competitive game.
- "Charts" – at least one file that contain a list of {time, key} pairs. These are the notes that come down during gameplay. (This will probably be us writing some script to convert existing chart files from other games into something that works for us)

Maximum Deliverable:

- All of the above
- Option to make the game cooperative, with a combined singular score being updated throughout the game based off both players' performances
    - Either both players play the same "chart" (set of notes synced to music) or there is a larger chart that both players play
- Support for four players? (either 4 player coop, or 2 vs. 2)
- "Meter" – if a player correctly plays enough notes in a row, they gain "meter charge." This can be activated by pressing some button and increases the score gained for some amount of time, as it decays. In cooperative multiplayer, one person can activate this and it will prompt other players to activate.
- Players vote to choose from multiple songs

What's your first step?

- Charting: Make at least one "chart"
- Gameplay: Create a simple, singleplayer version of this game.
- Concurrency: Build the server and client architecture with the "readiness" check, but just make both clients do something at the same time, not necessarily start the game

What's the biggest problem you foresee or question you need to answer to get started?

- How to ensure that songs start at the same time (syncing) – this needs testing to figure out how possible this is in its current state
    - Server might have to display the game, then clients just send keypress information
    - If we don't do that, we can sync the start of the song for each client by:
        - Clients all signal they're ready from user input
        - Once all clients are ready, server sends a message containing a timestamp some amount of time (~5 seconds) in the future
        - Clients all confirm to the server that they received this

        - If server receives all confirmations, we proceed as normal. Otherwise, restart the process
- How do we convert existing rhythm game charts to our new charts
    - Should be able to write a Python script to convert these