Technical Document
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Game Design

The game will be a single player 2D aim-based rhythm game, which will be heavily inspired by osu!. The game will contain a series of beatmaps that contain information regarding the location and timing of objects. The user will be able to play beatmaps and also create new beatmaps or edit existing beatmaps.

A tools pipeline will be the core technology that will be implemented. More specifically, it will be a built-in editor to create/edit beatmaps. Upon opening the client, the user is brought to the main menu and is presented with the option to play beatmaps or create beatmaps. They can return to this menu at any time. In order to implement this core technology, having the user able to play beatmaps is also required.

The game will be implemented in Godot.

Software Architecture

Currently nothing is built. The plan to implement the following in order:

Main Menu	Create the Main Menu UI and hook up functionality to transition between being able to play maps or edit maps.

Beatmaps
- Hit Objects
  - Hit Circle
  - Slider
  - Repeats
  - Bezier curves
  - Spinners
- Gameplay-Music synchronization
- Define file structure to store data
	Establish the beatmap file that will store data regarding timing and location of hit objects during a map.
	
	Synchronizing the objects with the audio will be needed, and I've found a tutorial on a possible solution.

Editor - Import audio file - Set offset and bpm	Create UI. Setup initial offset and bpm for the given audio the user provides. Add in the rest of features one by one to slowly develop the editor and make it

- Place hit objects - Ability to slow down song to better hear certain parts - Change measure timings e.g. 1/4, 1/3, etc - Change slider velocity	usable.
osu! Beatmap Parser	Create a parse to read in beatmaps from osu! and convert them to fit my beatmap file structure.

Division of Labor

This will be a solo project, so I will be responsible for everything. The plan is to work on the game everyday.