CS 248 Project Proposal

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Main Game Idea Description:

The game is meant to give the user immersive musical experience. The user enters a world populated by objects that move in response to background music with themes meant to represent the feel of the song (ex. Tron theme for electronic music). The user must then fly through this for the duration of the song avoiding these moving obstacles and collecting items to increase their score. A glowing trail follows the user giving the user an impression of speed. The goal of game is to finish the song with the highest score.

Game Mechanics:

The user controls a character from third person perspective using ASWD or arrow keys to control the height and direction of the character. The world is a large sphere object that has pseudo-gravity that keeps the user from flying off of the surface to avoid obstacles. The user increases their score by colliding with items that are generated in response to the music's frequencies. Each of these objects represents a different amount of points and some can change the speed of the character. If the user collides with obstacles, the players speed decreases making it more difficult to increase their score.

Technical Aspects and Challenges:

- Generating/moving objects in response to frequencies in music
- Creating realistic controls for a flying character
- Automatically populating the world with objects
- Collecting objects and score keeping
- Creating themes for the levels

Task Breakdown:

Jihee:

- Parse audio files for beat detection
- Procedurally generate objects for user to collect
- Sync object generation with music playing in the game

Heather:

- Character and object modeling
- Creating themes for levels (world objects, colors etc)
- Interactive menus
- Player controls