CSEE 4840 Embedded System Design
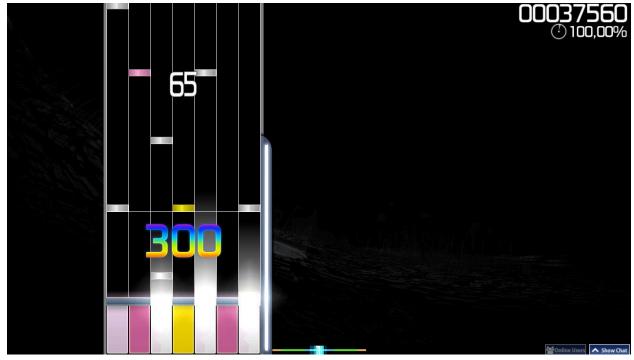# Spring 2024
Project Proposal
Design Topic: rhythm matching game

Project Members

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Overview

We want to implement a rhythm-matching game with the OSU Mania as the template. The player has to press the corresponding keys on the keyboard as the notes fall down from the top of the screen. The notes are aligned with the rhythm of the music, and the player has to hit them accurately to score points and maintain their combo. The game has 2 difficulties: 4 keys and 6 keys. The player is able to adjust the falling speed of the notes and the difficulty of the level from game UI using keyboard. At the end of the game, the rating of this play will be displayed.

Realization

The sound notes and hit effect will be implemented using 2D graphics library with C API.

The I/O of the game consists of:
1. Keyboard: the player will press the keys to trigger hits to the notes.
2. VGA: the game will display on the monitor screen using the VGA port.
3. Speaker: the speaker will play the rythm music and sound effects of the game

Milestone

March 20: I/O module
April 10: Game play, map design
April 29: UI, Animation and hit effects