

## Period 2

Group Members: Ivan Li and Brandon Chen

Group Name: Budget 99

Project Title: Tetris 99

**Brief Project Description:** This project aims to emulate Tetris, in which blocks known as tetrominoes slowly fall. The goal of the game is to either achieve some personal best score for singleplayer or to last longer than your opponent in multiplayer. This is done through a simple mechanic in which every time a row is completely filled, it's cleared. You will gain some corresponding score based on how many rows are completely filled from the current action in single player or send some amount of "garbage" to the opponent which will fill up the opponent's grid.

### List of Current Functionalities:

- Tetrominoes (the tetris blocks can be moved through the WASD and arrow keys)
- Background grid (single player and multiplayer)
- Naïve gravity (the tetris blocks fall down on their own)

### List of Functionalities to be done by the next meeting:

- Borders (so the blocks cannot move out of the playing zone)
- The tetrominoes actually gets put onto the grid, and stays until a row is cleared (update the background simultaneously with the tetrominoes)
- Quick drop (automatically goes all the way down to the bottom instead of having to press the down key multiple times in a row)

### Troubleshooting:

- We had problems with implementing the tetrominoes, and the ways that they pivoted/rotated. We solved this problem by implementing the SRS (Standard Rotation System). We created an array of blocks, which have the methods that allow the block to be moved and store the different orientations that a block can have (parameter given to an object of type block).
- We had problems with the draw method, and how to make the tetrominoes appear on the screen. We messed around with the order of the code, and found that by placing a background each time the draw method is called before drawing the tetrominoes worked.

UML:

