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## Final Project Proposal

### Tetris with Queue Implementation

We will be reimplementing the game Tetris to be played and run with Processing. It will implement the concept of queues that we learned this term. The tetromino shapes will be stored in a queue and dequeued one by one as they begin falling down. If the queue is depleted new random tetrominoes will be pushed in. We decided to use a queue because it is the easiest to conceptualize in terms of its FIFO (First In Last Out) properties. We can then utilize this to display what piece will appear next.

Our implementation of Tetris will follow the classic game's rules and goals-- you rotate and move the tetrominoes to try and fill horizontal lines. Our main goals will be to create a working display and moving game pieces that will successfully follow the rules of Tetris in regards to how the pieces get placed/cleared, how to determine when the game is over, and how the pieces will move (orientation and grid movement).

Bonus features that we aim to include (but are not crucial to the core functionality of Tetris) will include a scorekeeping display as well as a point bonus for accelerating the descent of the shapes. We are thinking about maybe using queues to implement a high score system. As previously stated, we will also have a display that shows the player what tetromino will get popped off and appear next. The game ends once a placed tetromino reaches the top of the grid.