

Tetris 2048 for Java

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*Poster for our project, finalized by Ahmet Yasir Beydili and Onur Keleş**

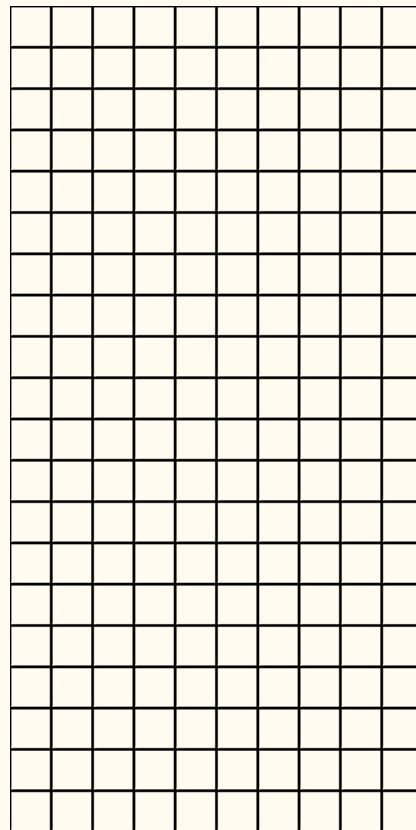
What Is *Tetris 2048*?

Tetris 2048 is a game that combines Tetris with 2048, and it was created in Java using the StdDraw package for this project. While we were doing so, we paid attention to the development the combination of both games by preserving the basic rules and playing aesthetics.

Implementing the *Grid* Surface

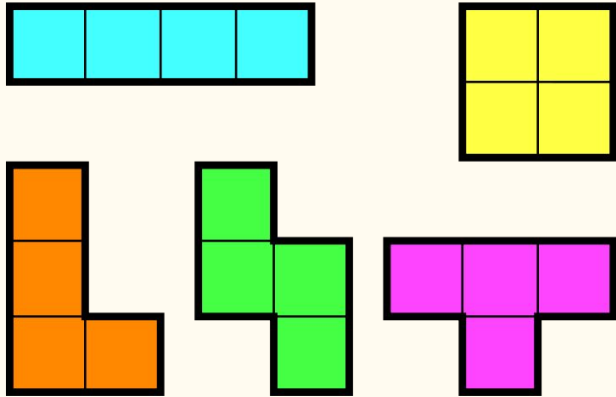
First we have the class called *Grid*. For a square matrix with given row and column values, grid has one data variable. It includes methods for displaying, drawing cells and lines, drawing the grid's bounds, removing completed rows, and adding new forms to the grid.

And it also provides a way for determining whether a tile with the provided row and column indexes is occupying the grid cell.



*A blank Tetris grid**

How did we create *Tetrominoes*?



*Tile types in Tetris**

- To create tetrominoes we used 2 different classes named as *Shape* and *Square*
- In *Square*, we are determining the values and colors of the each tetrominoes.
- In *Shape*, we are using various methods to adapt the Tetris game with 2048 values in our code.

The Main Part of Constructing *Tetris 2048*

The game starts with a menu and a single start button. When the game begins, tetrominoes start falling from the top of the screen, and the player can use keys to move them left, right, down, or rotate them.

The goal of the game is to have the full horizontal lines of tiles on the game grid vanish and gain points. When the *tetrominoes* reach the top of the grid, the game is ended.



Implementing the *App*



*The game menu that we implemented**

After initializing the necessary libraries we also needed to define the canvas for the game, setting the size and scale of the canvas, and double buffering.

We also should represent the game board, setting the starting score to zero, and initializing the first tetromino to fall from the top.

Finally, we just need to put the game menu as a starting screen to greet the player at first!

Sources:

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<https://www.deviantart.com/nick07208/art/Tetris-board-788821372>
3. Super tetris 2048. (n.d.). Freegamesboom - Gratis Spiller Online.
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