# Team C Final

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Simple Design/Architecture

- Refactored original Tetris code with Strategy Design Pattern and the Factory Design Pattern, as well as eliminating many code smells.
- Implemented several features using good testing principles.

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Score (Prosper)

- Score is an evaluative numerical value that records how well the player is doing
- Increments by 10 upon piece landing and 100 upon row being cleared
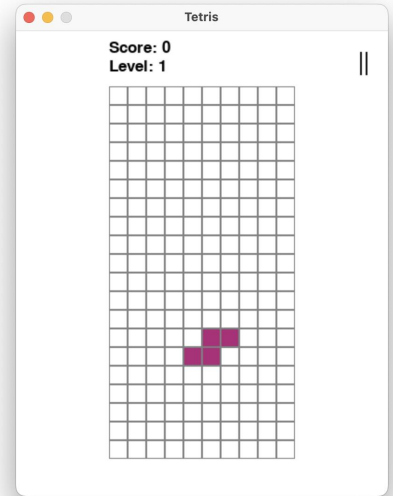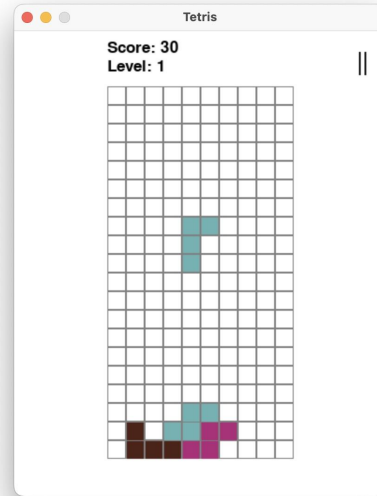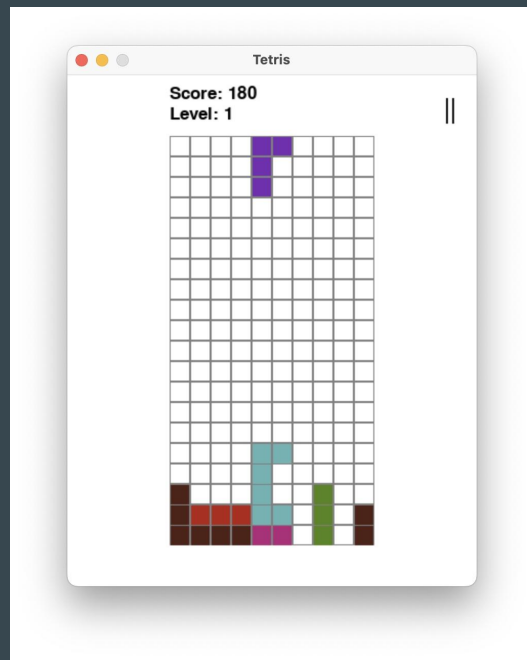
Level (Prosper)

- A series of stages of increased difficulty starting from 1 and incrementing based on the players score.
- Increases by 1 when the player hits a multiple of 500
- Increases the speed of Tetrominoes
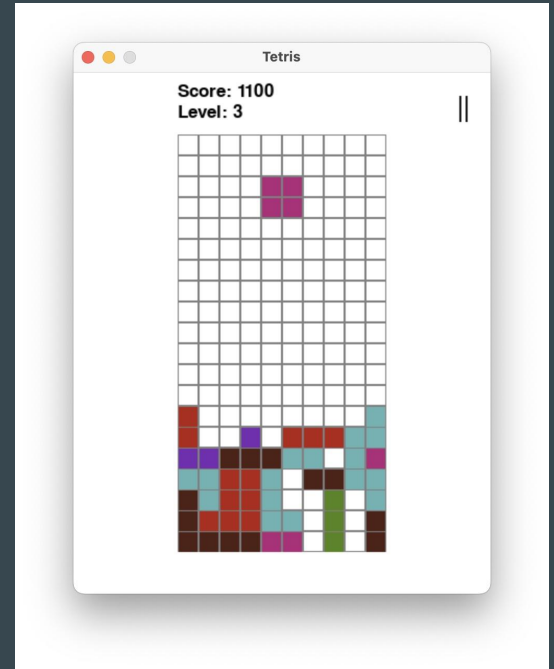
Combos (Prosper)

- Another reward for skillful players which gives extra points for the clearing of a row
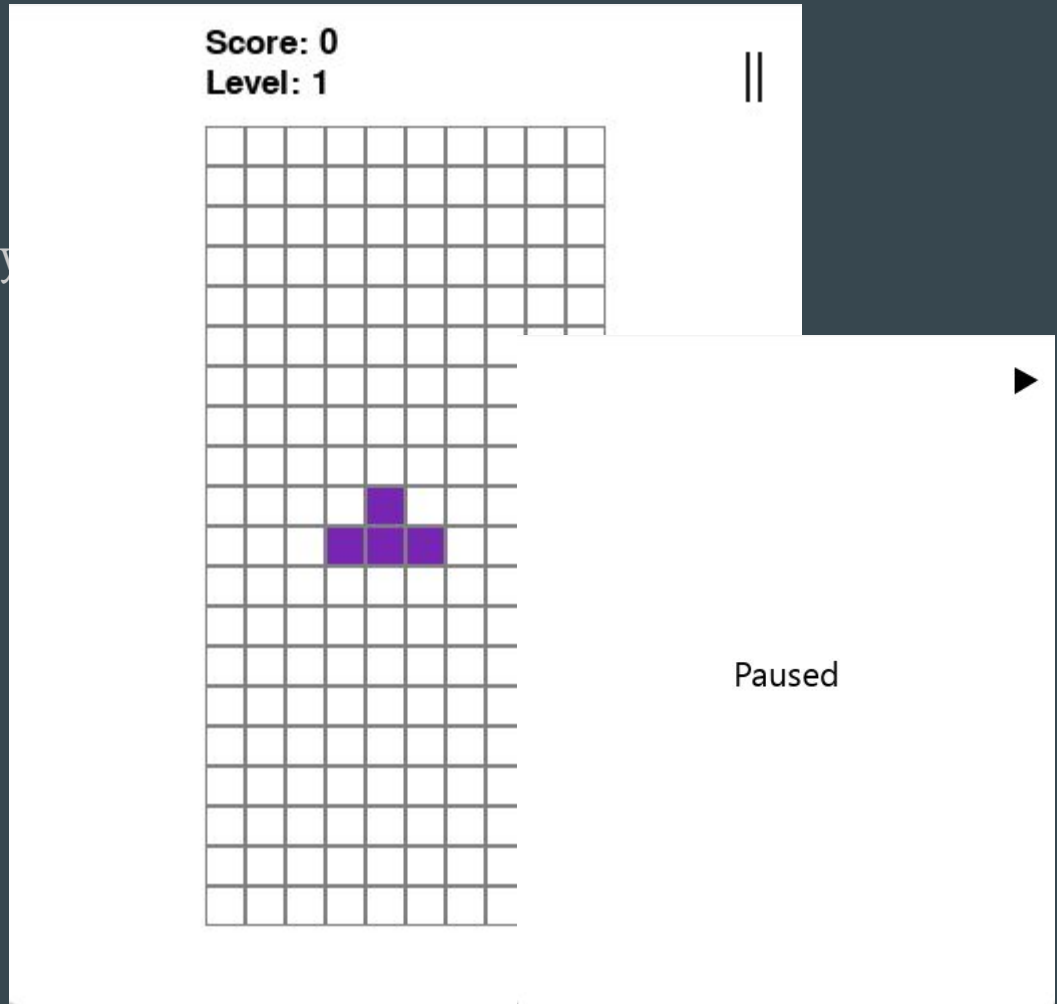
Game Over UI (Amaya)

- Game over screen once the player can no longer make moves.
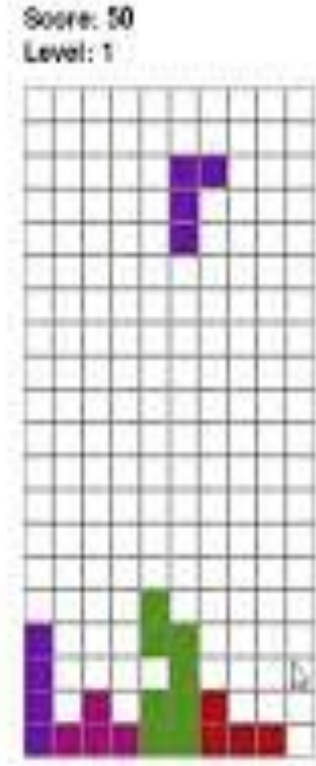- Easy game restart by pressing "r"

Pause Game (Amaya)

- Player can pause the screen by pressing "||"
- Pause screen appears
- Player can resume the game by pressing "▸"

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Game Sound (Amaya)

Sounds for

- Background music
- Pausing
- Resuming
- Moving piece side to side
- Rotating piece
- Placing piece
- Filling a line - Tetris
- Game over

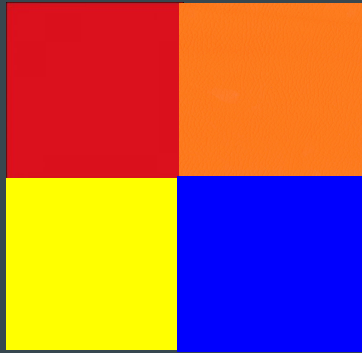# Choose Figures Color Scheme (Julianna)

-Users are given option at the startup menu which color scheme they want to make the figures.

-Users can pick the Classic, Autumn, Rainbow, or Bright color scheme.

-This feature will help give users an option to add more customization to their game.
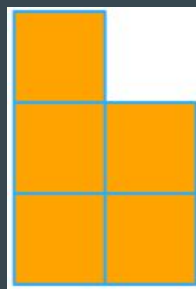
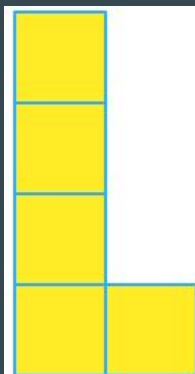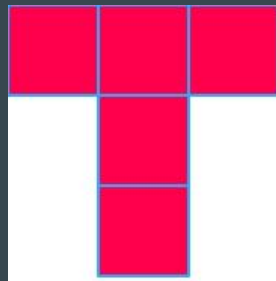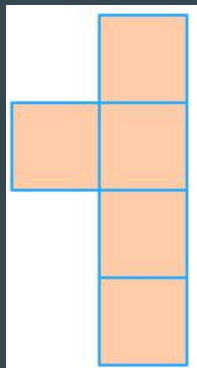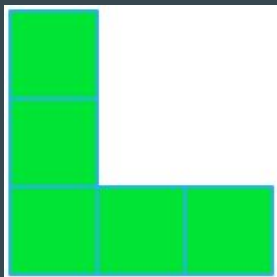Autumn Colors:

Rainbow Colors:

Advanced Figures (Julianna)

-Users are asked if they want to play with 4 block figures, 5 block figures, or 6 block figures.

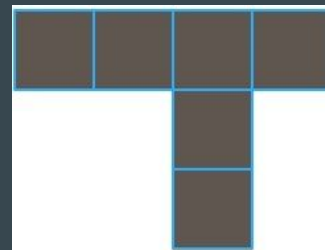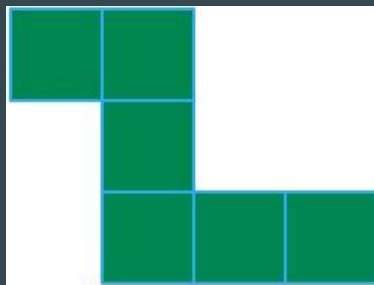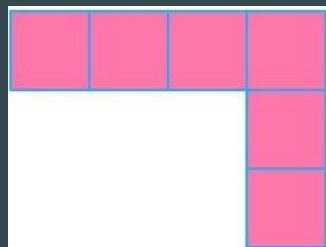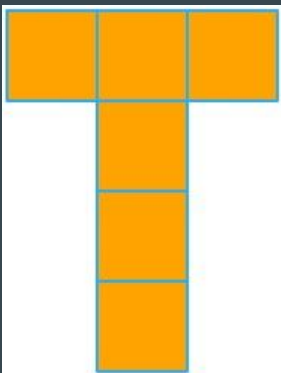-This feature will give users a chance to increase the difficulty of the game and keep users intrigued in playing if they get tired of using the same blocks.
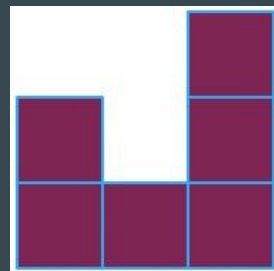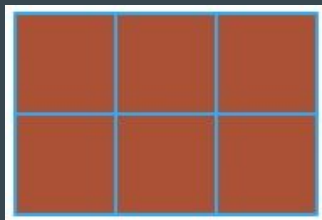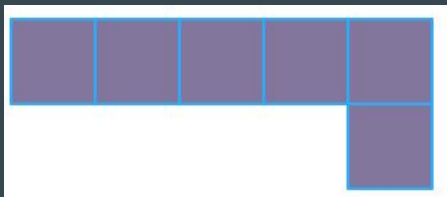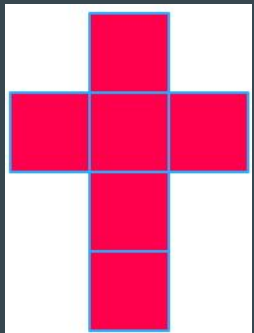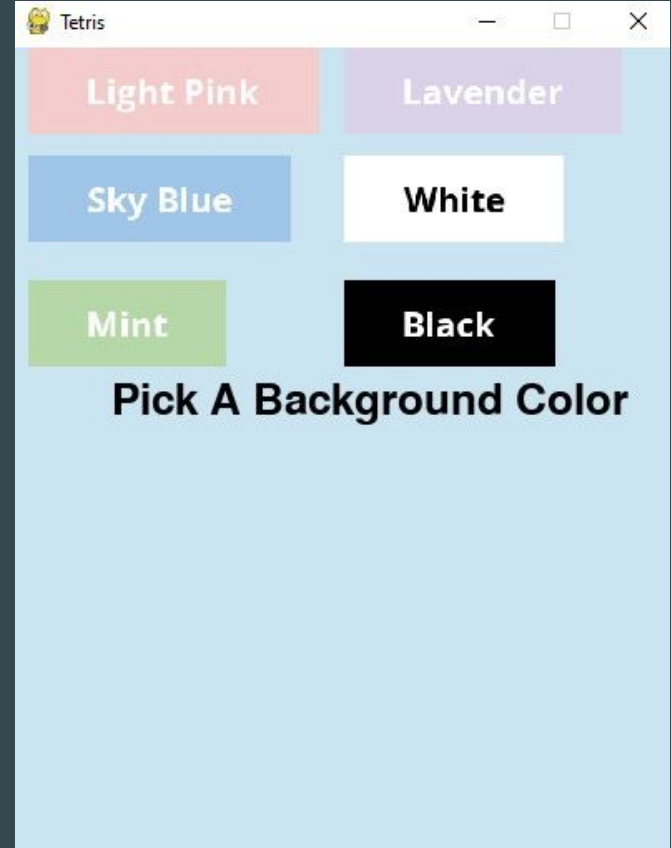
5 Block Figures:
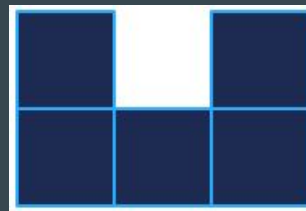
6 Block Figures:
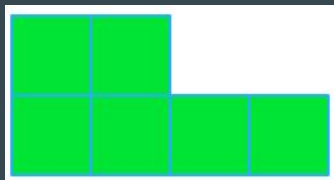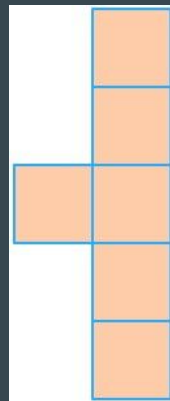
Pick Background Color (Julianna)

-Users get to select which background color they want the screen to be.

-All background colors are compatible with all the different color schemes.

-This increases the users ability to customize the game.

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Lessons Learned

- Unnecessary design patterns make code more complicated
- Starting early helps everyone
- There are always more code smells
- Staying organized early would help relieve stress
- Starting early is better—gives you time to ask for help/reduces stress

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Progress Summary

Initial loc: 235

Final loc: 740

Final Burndown: 100%

Final Test Coverage: 96%