

Team A Tetris Project

Team Leader: Colevy Collins

Team Members: Munene Gatobu, Ben Molly, Trung Cao

Score: 44

High Score: 44

Light

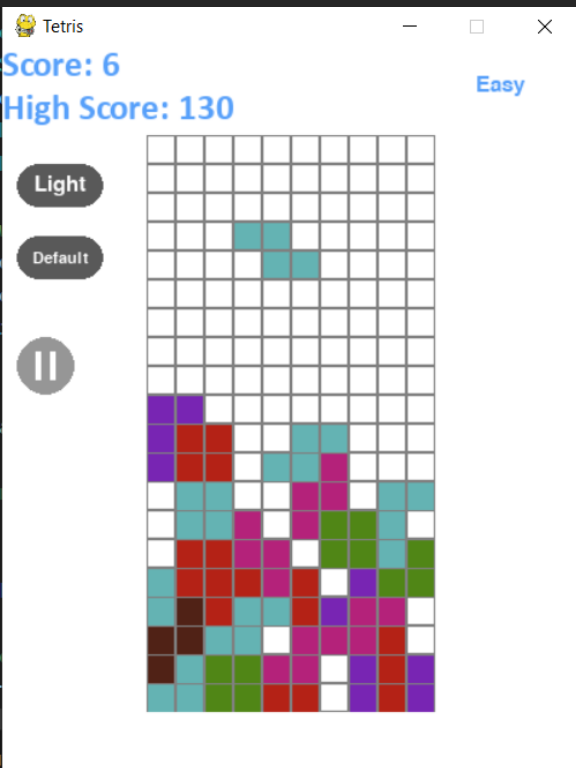
Default



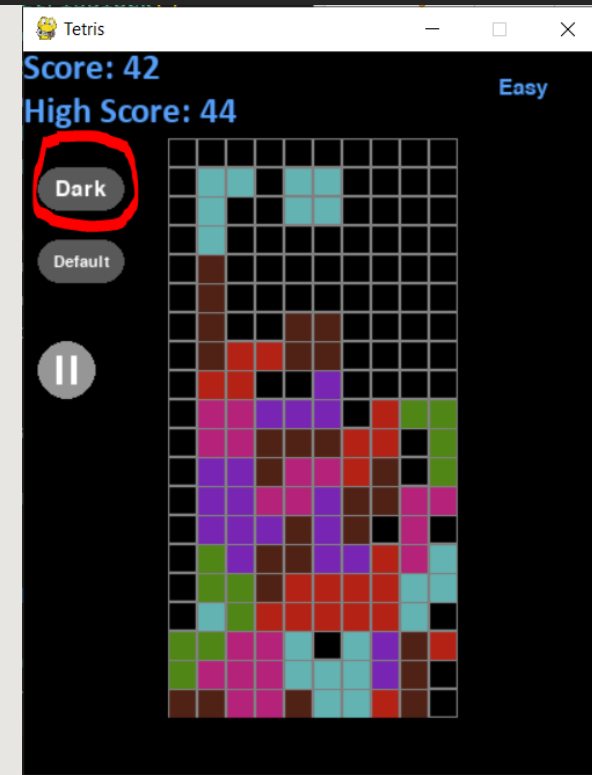
What is Inside: Tetris Core

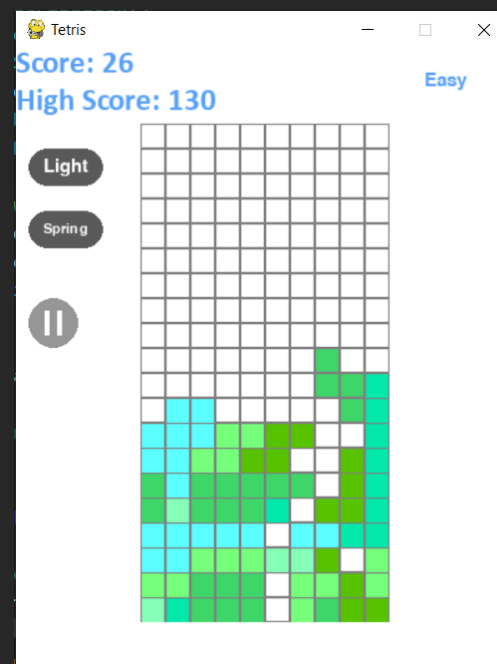
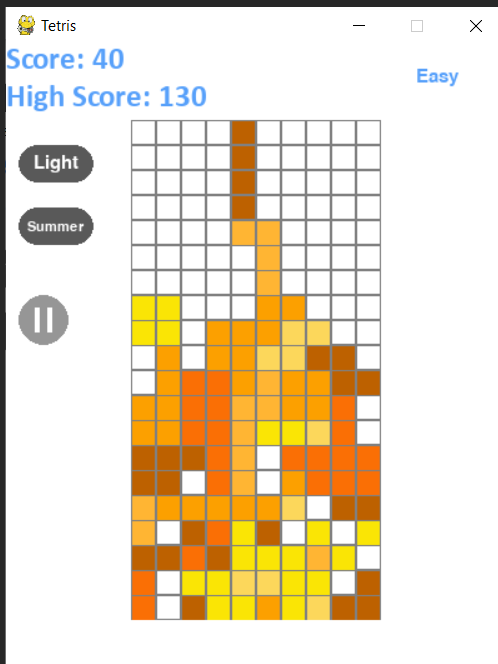
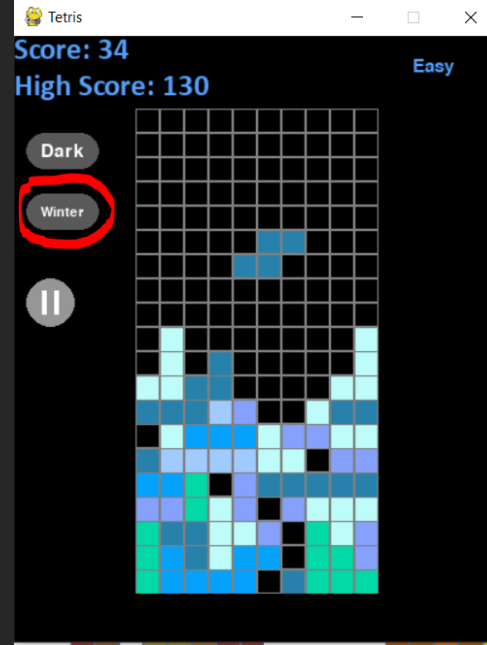
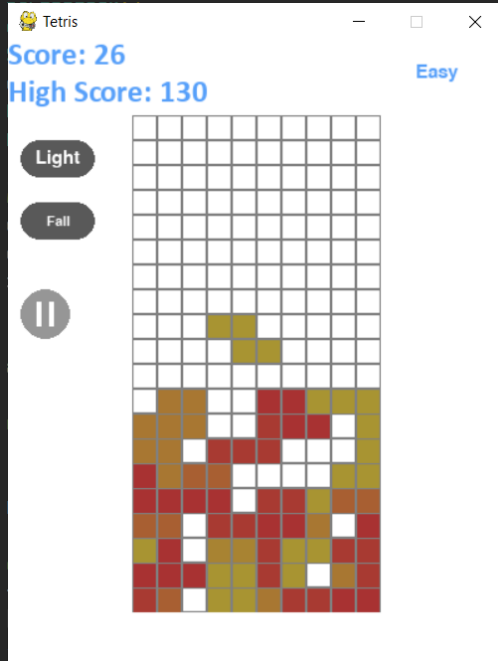
- Our first task in this project was to refine the Tetris core game code to be easier to work with.
- The game core has all basic features of Tetris

Munene: Dark Mode



- The dark mode feature adds a button that displays the current light mode.
- When click, the background turns to black, and the grid turns white.



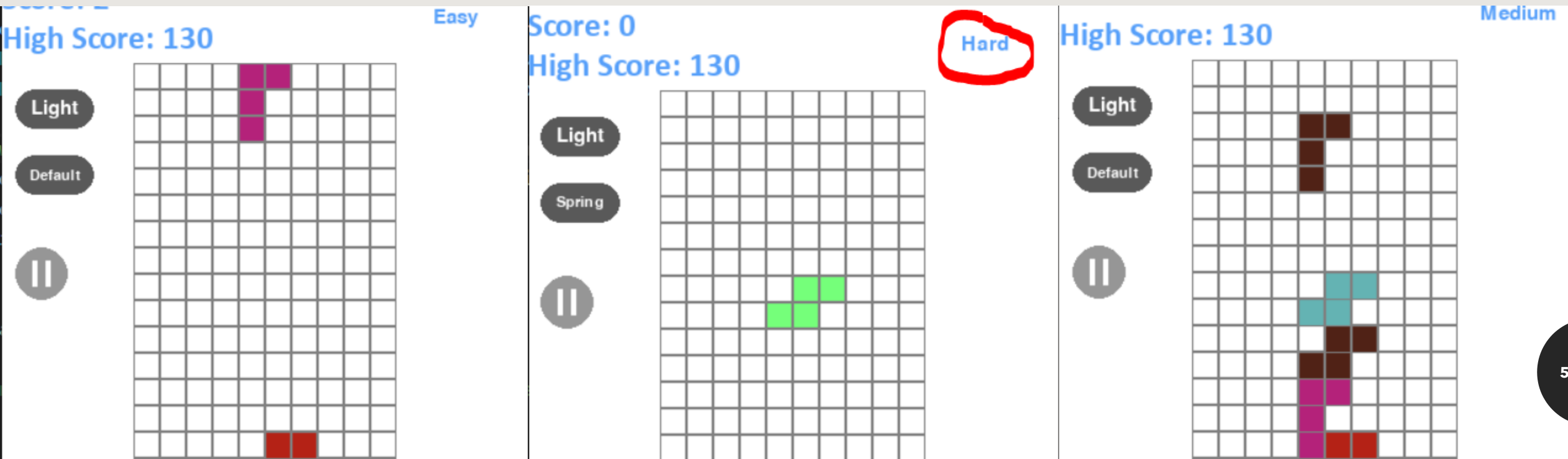


Munene: Color Themes

- The color themes feature adds a button that displays the current color theme.
- When clicked it cycles through the theme options

Munene: Difficulty modifier

- The difficulty modifier adds a button that displays the current difficulty
- When click, the speed from which the blocks fall is changed.



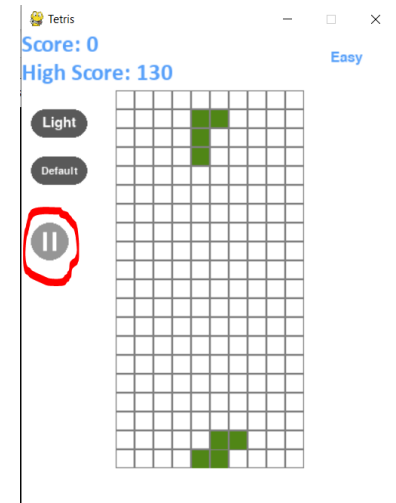
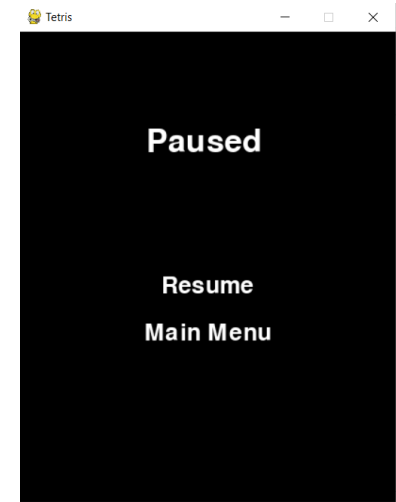
Ben: Starting UI

- The start UI feature provides a menu that stops the game from starting until the start button is pressed
- The start UI also provides a quit button to quit the game



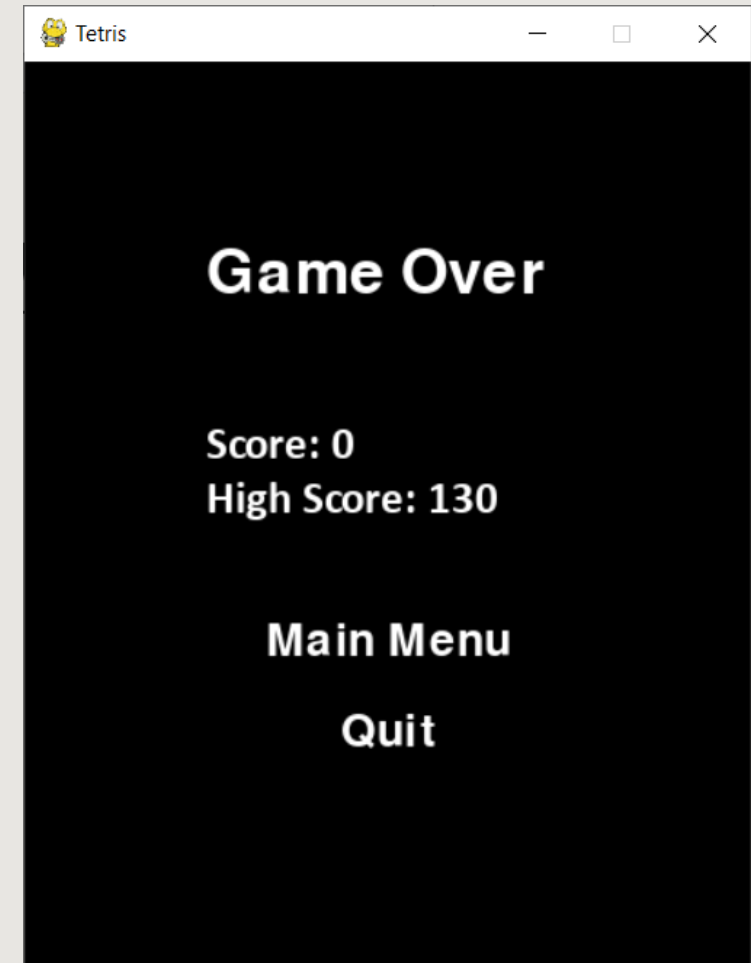
Ben: Pause UI

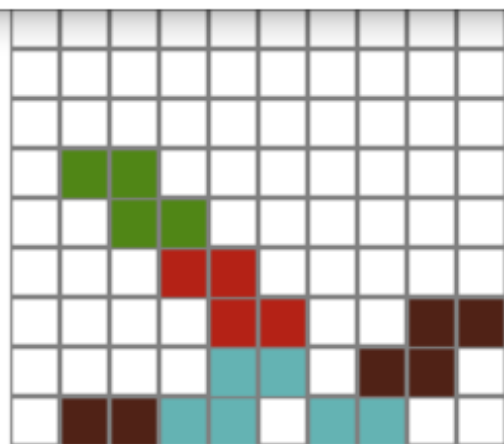
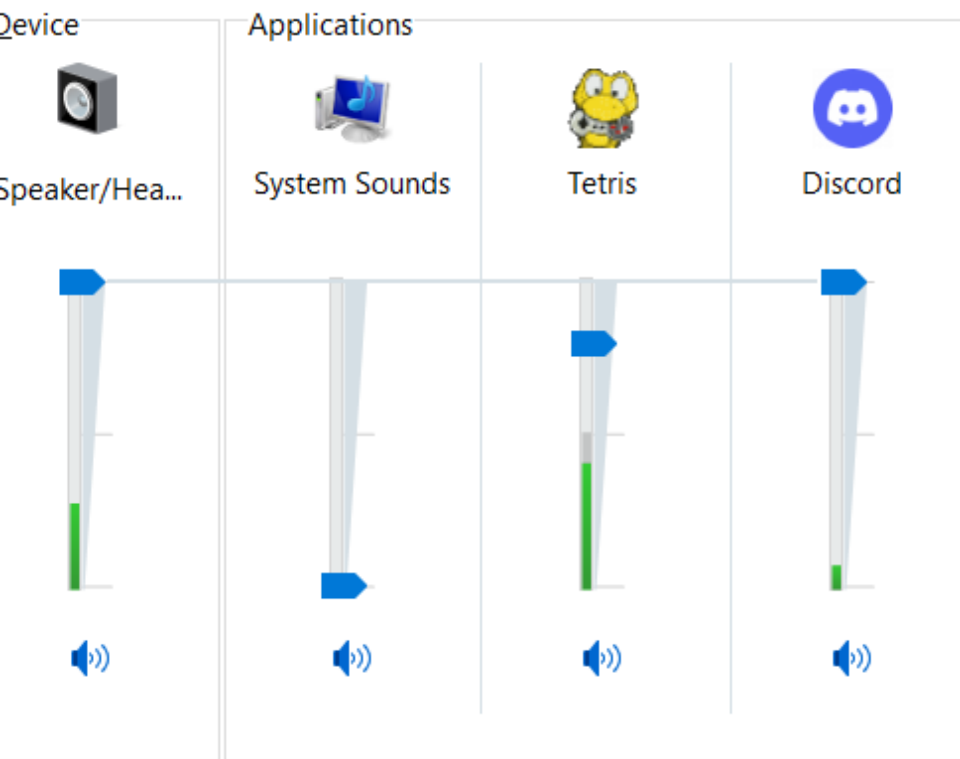
- The Pause UI provides a pause button that stops the game.
- When the button is clicked, the user is presented with a pause UI that provides a Resume button and Main Menu button
- When clicked, the Resume button resumes the game and the Main Menu button send you to the main screen



Ben: End UI

- The end UI provides the user With the current games score, the Highest score, a button to return to the main menu and a quit button
- When clicked, the main menu button returns you to the main menu and the quit button quits the program



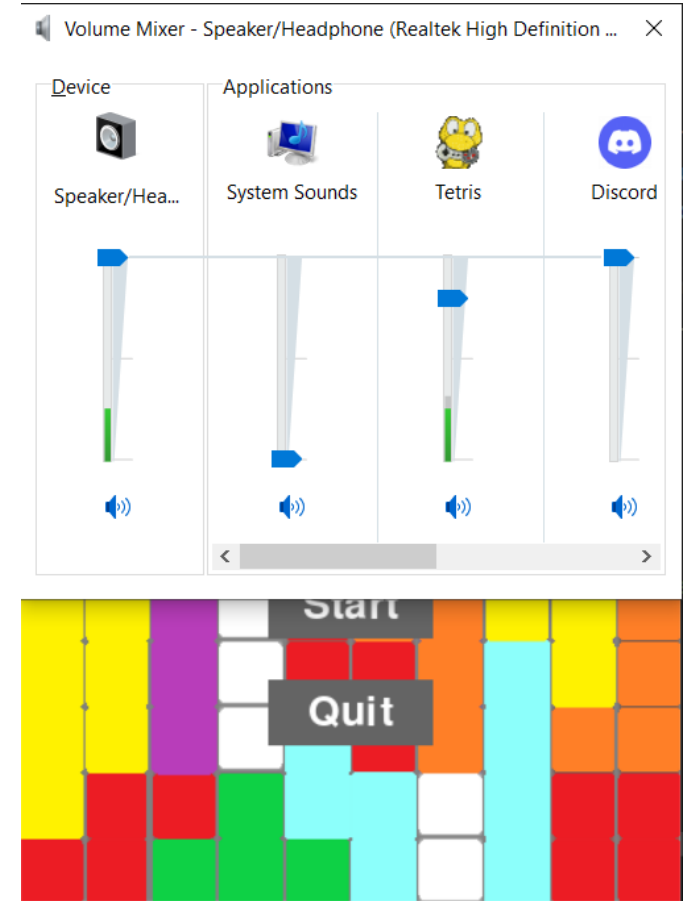


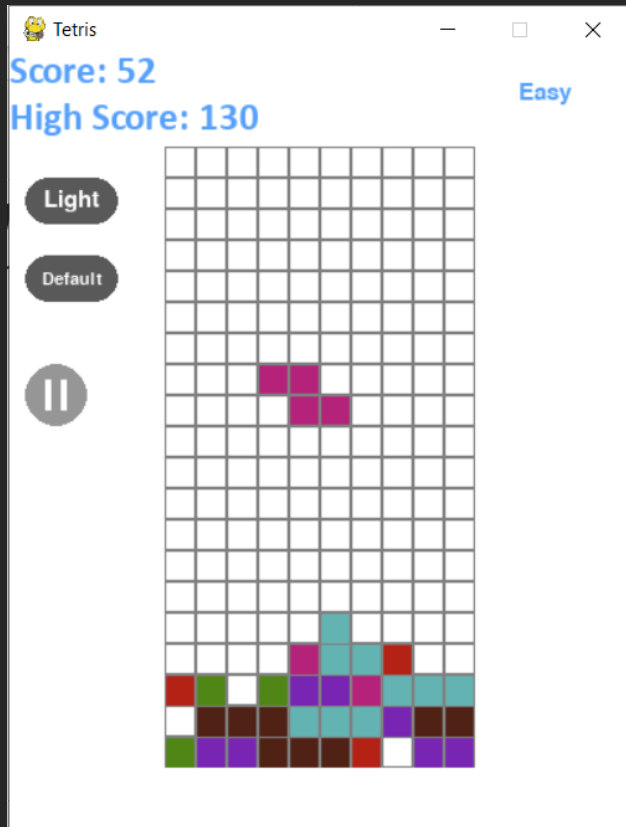
Trung: Sound Effects

- The sound effect feature adds sounds to when a block is moved, when a block lands at the bottom, and when a line is cleared.
- There are also sound effects for when the space bar is clicked and when the game is over.

Trung: Background Music

- The background music feature plays music while the game is opened and played
- The music will continue playing until the game is over.





Trung: Score Tracking

- The score tracking feature add a display to the game screen and end UI that displays the current score of the game and the highest score among all games played

```
===== test session starts =====
platform win32 -- Python 3.11.5, pytest-7.4.3, pluggy-1.3.0
rootdir: D:\NKU\Fall12023\ase420\TeamA_Tetris_Project\TeamA-Tetris-Project
plugins: anyio-3.7.1, asyncio-0.21.1, mock-3.12.0
asyncio: mode=Mode.STRICT
collected 50 items

tests\test_EndUIMenu.py ..... [ 10%]
tests\test_StartUIMenu.py ... [ 16%]
tests\test_board_checker.py .... [ 24%]
tests\test_board_manager.py ..... [ 38%]
tests\test_darkmode.py ..... [ 48%]
tests\test_high_score.py ... [ 54%]
tests\test_pauseUIMenu.py .... [ 62%]
tests\test_sound_manager.py ..... [ 76%]
tests\test_speed.py .... [ 84%]
tests\test_tetris_block.py .. [ 88%]
tests\test_tetris_board.py .... [ 96%]
tests\test_theme.py .. [100%]

===== 50 passed in 5.19s =====
```

Test coverage of all Features

- 1 manual test per each feature. 3 total
- At least 2 automated test per feature. 18 tests total
- 9 acceptance test
- 2 integration test
- 1 regression test.
- 39 test total

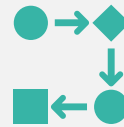
Code Evolution

- Starting lines of code for the project as 355
- Ending lines of code for the project as 1620

What we have learned:



We have learned how to identify code smells and how code smells can affect progress.



We have learned methods of developing clean code through small iterations.



We have learned valuable design patterns to solve real world problems.