

Game Project: [TETRASLAM]

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Note: While it is entirely possible to complete this project individually, it is highly recommended to work with a partner. Doing so can significantly reduce stress, provide opportunities for better collaboration, and allow for more efficient problem-solving, especially when managing complex parts of the game development process.

Project Overview

This project was developed as part of the COMP2659 course at **Mount Royal University**. It is a Tetris-like game that includes various features such as:

- Piece generation and rotation
- Real-time collision detection
- Row clearing and game-over conditions
- Dynamic piece cycling and placement

Course Information

- **Course:** COMP2659 - Computing Machinery II
- **Institution:** Mount Royal University
- **Course Stages:** There are a total of 11 stages in the course, each focusing on different aspects of computing machinery, algorithms, and practical coding exercises. While the project started with a more ambitious scope, I was able to complete stages 1 through 8.

Features Implemented:

- Piece generation and rotation
- Collision detection with the tower
- Row clearing functionality
- Scoring system with a tile counter display

Challenges and Learnings

During the development of this project, I encountered several challenges, including:

1. Managing the game's state effectively.
2. Implementing collision detection efficiently.
3. Ensuring smooth piece movement on a constrained platform.
4. Time management with deadlines and robust testing for each stages.

Key takeaways include optimizing memory usage and computation time to ensure real-time gameplay.

Future Improvements

- Add more stages with level progression.
- Implement a timer to increase difficulty over time.
- Refine the user interface with animations and effects.
- Add sound or music for a more immersive player experience.

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