SnakegamePlus 🐍

Brief Introduction

An advanced version based on the fundamental edition of the snakegame.
Completed by DZX, QJC and XKY in Summer, 2024.
Supported by PDCurses and SFML.
Everything available on Our GitHub.

Players can choose from four kinds of mode in our game: *Single Player*, *Two Players*, *Just Eat*, *Entertainment*.
Explanations are as follows.

Part I. Single Player mode

In this mode, you'll control a green and white snake by `W A S D` or `↑ ↓ ← →`. Just follow the rules of the classic snakegame except for 3 aspects:

1. **Obstacles:** `White square` symbolize a obstacle. Please avoid crashing into them, or the game will over. However, you can press `Y` or `y`, which make you **UNSTOPPABLE** temporarily when you're about to crash into the obstacle.
2. **Portal Gates:** `O` which appears in pairs stands for a portal gate. When you travel into one of them, you'll come out from another in the same color.
3. **Blue Food:** `#` in white is just a simple food, while `#` in blue can provide you with a transitory acceleration.

Part II. Two Players mode

In this mode, P1 will control a blue and white snake, while P2 a red and white snake. Everything is the same with *Single Player mode* except that:

1. `Y` and `y` are disabled.

2. Player who scores more points in the limited time will win.
3. Player who crashed into a obstacle or the wall immediately loses.
4. A tie will be reached when one snake's head crashes into the other's.

Part III. Just Eat

In this mode, you'll see a large amount of food with different values.

- Magenta food: 1 point
- Red food: 2 points and a transitory acceleration
- Yellow food: 3 points
- Blue food: 5 points

Obstacles, `Y` and `y` are reserved, while portal gates are banned. Try to score as many as points as you can within the limited time.

Part IV. Entertainment mode

In this mode, The game is divided into two states: **Scoring State and Penalty State**. Each round lasts 200 moves.

1. **Within each round**:

- The first 100 moves are **the Scoring State**: Food is represented by a hash mark `#`.
- The following 100 moves are **the Penalty State**: Food is represented by a square (Just like the obstacles).
- After consuming a piece of food, **the score will increase or decrease** accoring to the state by **the point value** of the food.
- After consuming a piece of food, **the snake's length** will increase or decrease by **1**.

2. The Snake **won't die** when:

- Touching the walls
- Touching the white obstacles
- Touching its own body

3. The Snake **will die** when:

- Its length **reaches 0** or **exceeds 30**.
- When transitioning from the Scoring State to the Penalty State, the snake will die if its length is less than 15.
- When transitioning from the Penalty State to the Scoring State, the snake will die if its length is greater than 15.

4. Additional hint:

- About the length: The snake's length is displayed in the center of the screen to help players manage their length.
- **Bonus Scoring**: Achieving 20 or more food items consumed **during the Penalty State** of a round earns a bonus score, which is three times the points scored during the Scoring State of that round.
- Key Effect: Pressing the 'H' key accelerates the snake and slow down the passage of time, allowing it to consume more food in a short period of time.
- Portals: Portals can still be used as intended.

5. Intention: This mode encourages players to consume high-point food in the Scoring State and low-point food in the Penalty State to ensure the snake's length changes and to try to earn more scores.

Enjoy our game 😊 !