

Pacman Class Structure Overview

Class: Game

Attributes:

- Maze maze
- Pacman pacman
- std::vector<Ghost> ghosts
- int score
- int highscore
- int lives
- bool paused
- bool gameOver
- bool gameStarted
- std::string highscoreName
- int level
- bool fruitActive
- float fruitTimer
- float pauseTimer

Functions:

- void Init()
- void Update()
- void Draw()
- void HandleInput()
- void CheckCollisions()
- void ResetGame()

Pacman Class Structure Overview

- void LoadHighscore()
- void SaveHighscore()

Class: Maze

Attributes:

- int grid[HEIGHT][WIDTH]
- Vector2 tileSize

Functions:

- void GenerateRandom()
- void Draw()
- bool IsWall(int x, int y)
- Vector2 GetTileSize()

Class: Pacman

Attributes:

- Vector2 position
- Vector2 direction
- int speed
- bool isAlive
- float deathTimer

Functions:

- void Update(Maze &maze)

Pacman Class Structure Overview

- void Draw()
- void Move(Maze &maze)
- void Reset(Vector2 startPos)

Class: Ghost

Attributes:

- Vector2 position
- Vector2 direction
- int speed
- Color color
- bool isFrightened
- float frightenedTimer
- int type

Functions:

- void Update(Maze &maze, Vector2 pacmanPos)
- void Draw()
- void Move(Maze &maze)
- void Reset(Vector2 startPos)

Class: Coin

Attributes:

- Vector2 position
- bool collected

Pacman Class Structure Overview

Functions:

- void Draw()
- bool CheckCollision(Vector2 pacmanPos)

Class: Fruit

Attributes:

- Vector2 position
- bool active
- float timer

Functions:

- void Update()
- void Draw()
- bool CheckCollision(Vector2 pacmanPos)

Class: HighscoreManager

Attributes:

- int highscore
- std::string name

Functions:

- void Load()
- void Save()
- void UpdateScore(int score, std::string name)