

Move

Responsibility:

Represents a single move in the game, including the target location and the next piece to be played.

Game

Responsibility:

Contains the core game logic. Validates moves, updates the game state, checks for winners, and determines whether the game is over.

Board

Responsibility:

Represents the game board and manages the state of all fields, including placing pieces and checking winning lines.

Piece

Responsibility:

Represents a single game piece with its properties such as shape, size, color, and fill status.

GameServer

Responsibility:

Manages the server lifecycle, listens for incoming client connections, and assigns clients to game sessions.

GameSession

Responsibility:

Coordinates a game between two players. Handles turns, forwards moves to the game logic, and manages player disconnections.

ClientHandler

Responsibility:

Handles communication with a connected client on the server side, including receiving and sending protocol messages.

Protocol

Responsibility:

Defines all protocol constants and message formats used for communication between client and server.

ServerConnection

Responsibility:

Manages the low-level network connection from the client side, including sending and receiving messages.

AbstractClient

Responsibility:

Abstract base class for all clients. Handles connection setup, protocol handling, and shared client functionality.

HumanClient

Responsibility:

Represents a human-controlled client. Determines moves based on user input.

AIClient

Responsibility:

Represents an AI-controlled client. Uses a strategy to automatically determine moves.

BotStrategy (interface)

Responsibility:

Defines the interface for AI strategies used to determine moves.

SmartBot

Responsibility:

Implements an advanced bot strategy that selects moves using smarter decision logic.

RandomBot

Responsibility:

Implements a simple bot strategy that selects moves randomly.

TUI

Responsibility:

Provides a text-based user interface for human players, displaying messages, errors, and the game board.