




Game Overview

- Connect Five is a 15x15 grid-based strategy game.
 - Two players take turns dropping colored pieces into a column.
 - The goal is to be the first to connect five pieces in a row, column, or diagonal.
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Game Rules

- 1. The game is played on a m -row by n -column grid.
- 2. Players take turns dropping one piece per turn.
- 3. The piece falls to the lowest available row in the chosen column.
- 4. The first player to connect five pieces in a row, column, or diagonal wins.

Low-Level Design Breakdown

- • Core Components:
 - - Board (Grid representation)
 - - Players (Two alternating turns)
 - - Game Rules (Valid moves and win conditions)
- • Key Functions:
 - - Player move handling
 - - Board state updates
 - - Victory condition checks
 - - Game loop control

Board Structure

- The board is a $m \times n$ grid represented as a 2D array.
- Each cell can be empty (None), Black (B), or White(W).
- Players drop pieces from the top of a column.
- The piece settles in the lowest available row in that column.

Win Condition Checking

- • After each move, check for five connected pieces:
 - Horizontal
 - Vertical
 - Diagonal (\searrow & \swarrow)
- • If a player achieves five-in-a-row, they win.