**Connect 4 By Team 7**

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DatacomC4 is a Client-Server Connect 4 game. The program is divided into 2 main parts:

* The back-end: contain the definition for the game’s core, such as
  + Board: Representing the “Board” in a Connect 4 game, which is a 2D byte array.
  + Player: An interface for HumanPlayer and AIPlayer. Both HumanPlayer and AIPlayer will take in the SAME Game Object.
  + AIPlayer: Implements Player interface. Responsible for how the AI analyze the Board and decide the best move against HumanPlayer.
  + HumanPlayer: Implements Player interface. Defines the “move” mechanism for HumanPlayer.
  + Game: Contain a Board and a Session. Contains the logic of the win, lose condition.
  + Session: Contain a List of Game. Each Game will have its own ID. This will be used more for Multi-Thread.
  + C4Client: Contains the Logic of send and receive from C4Server.
  + C4Server: Contains the Logic of send and receive from C4Client.
* The front-end: contain the GUI and act as a “user interface” layer for C4Client.
  + ConnectionController: Responsible for user to input IP and Port number of Server, validate their input, connect to server, and create necessary back-end components for the game to start.
  + GridController: Responsible to display the Connect 4 Game itself. Including the logic to display valid moves from both Client and Server, Quit and Reset the game and display important information on such as current turn, number of wins for AI and HumanPlayer.