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Homework 6: Connect Four – Design Document

Create a short paper describing the Connect 4 game, and what "objects" will be needed to implement it on a computer. We will call this paper our "Design Document".

For each object, write a list of "STATE" for that object (i.e., information required to represent the object) and a list of actions that the object can do. Divide these actions into "GUI" actions and "Game Logic" actions.

**Object 1 – Checker**

*State*

An owner string that is “Player 1”. This makes the checker red; any other value will create a blue checker.

A Point given that is the final destination point of the checker.

*Actions: GUI*

Descend until the final destination coordinate is reached.

Color based on owner.

Location of Checker.

*Actions: Game Logic*

Who owns the Checker?

**Object 2 – Button**

*State*

String to display on button.

ID for button identification.

Size of button.

Function to determine what to do if button is clicked.

*Actions: GUI*

Draw default button.

Draw button for mouse click.

Draw button for mouse hover.

Draw text.

*Actions: Game Logic*

Set ID of button.

Return button ID.

**Object 3 – Connect Four Board**

*State*

7 Buttons drawn.

*Actions: GUI*

Creates buttons for each column.

Drop checker into column when button is clicked.

*Actions: Game Logic*

Check if a player has 4 colors in a row.

What to do if button is clicked.