**Connect 4**

**Description:**

The purpose of the project is to produce a recreation of the popular game “Connect 4.” The Program will be solely written in MIPS assembly language, with input and output provided via the console. The program supports play between the user and an artificial intelligence. The program will not allow illegal moves by both the user and the AI, when the user inputs an invalid response an error will be displayed explaining the violated rule.

**Challenges:**

It was difficult to implement the board, since we received numerous errors as we tried to print/reset the board. The problem was solved by using debug tools to identify registers that had the wrong values.

**Experience/Learned:**

-Working as a team

-Efficient debugging

-Advanced Coding

**Program Details:**

The program used many subroutines to implement the different situations a game can encounter. Numerous branching instructions were used to change control flow as the board progresses. The AI selects a column based on the winning strategy.

Winning Strategy: The AI tends to choose the same column, as long as that column’s top piece belongs to the AI.

**Team Evaluation:**

Songyang Li:

Did most of the coding, provided information on coding progress.

Adam Naby:

Helped Songyang greatly with coding, completed the user manual.