Software Engineering Assignment 2:

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Part 1: **Create the main components of the game (the board and the players) and initialize the game.**

I used the code provided to initialise the board. I then added the functionality to initialise the two players by taking in names, colours and then allocating a specific start size to the pieces they had in reserve, had captured and currently owned.

Part 2: **Configure the main logic of the game.**

Firstly, I implemented the ability to move a piece. The program checks if the players colour matches the top piece of the square at the coordinates the player input. If the move is legal the input square is merged with the output square by traversing to the bottom of the input stack and moving that to the top of the output stack. The moved piece is then removed from the input stack so the next piece can be moved. With each iteration of push, the size of input is reduced so it can be tracked. When the pieces are merged, the input square is set to empty to make sure nothing is left over.

Part 3: **Implement the functionality to maintain the size of each stack equal to 5.**

I then made a function pop that if the output stack reaches above size 5, removes the pieces from the bottom one by one until its reached 5 again. If the players colour matches the piece removed, it

is added to the players reserve count or else it is added to the removed count. I made a distinction between removed and captured. With captured increasing whenever an enemy stack is taken over and removed increasing when a piece is completely removed from the board.

Part 4: **Compute the winning condition.**

I set up a function that checks the players owned pieces number at the start of every turn and prints the winner, loser and their stats if either player reaches zero owned pieces and also has zero in reserves.