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Data Structures & Algorithms

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The Tic-Tac-Toe game is meant to model a tic tac toe game with the restriction of using only linked lists to implement the game.

I used the linked list in this game by having a Node and Linked List class. The node class consisted of a constructor to initialize new nodes and a method to set the next node. The linked list consisted of methods and operations that would handle the linked list and nodes. Some of the methods included insertAtEnd and isEmpty.

Some of the challenges I faced while trying to implement this game, was how I would traverse through the list. I resolved this by initializing a new node that would be used to store the next node in the list, and at the end of each loop I would set the node to the following node. Another issue I encountered was that a NumberFormatException would be thrown and stop the program when I needed it to continue. This was easily fixed with a try and catch statement.

Something additional that I included was the option to continue playing begin playing and to continue playing. After each round, the number of times each player has won is recorded and then displayed for the players. The players can also reset the scores to zero after the round ends.