Functional Requirements:

As a player, I can set the number of rows and columns of the game board so that I can customize my own game.

As a player, I can set the number in a row to win so that I can customize my game to my liking.

As a player, I can choose a multiple number of players to play the game with me so that I can play with all of my friends.

As a player, if I enter any invalid input I can re-enter until valid so that I will not miss my turn in the game.

As a player, I can view the gameboard so that I can see positions taken and by whom.

As a player, I can click a board location to place my player token, so I can play.

As a player, I can win, lose, or draw so that I can fully have played a tic tac toe game.

As a player, I can see the new gameboard as a new position has been placed so that I can keep track of the game and players’ tokens.

As a player, I can see who won, so I can know whether I won or lost.

As a player, I can see the updated gameboard so that I can insert into an accurate location.

As a player, If I enter an invalid board position I can try again so that I do not lose a turn.

As a player, I can choose whether to play again or not so that I can keep playing or quit the game.

As a player, the game automatically chooses a memory efficient or fast implementation so I can play the best game version for my computer.

As a player, I will be told whose turn it is in the game so that I do not place the wrong player token.

Non-Functional Requirements:

The program will be written in Java.

Game screen should be easily readable.

Game board should be displayed.

GUI will be implemented by JavaSwing.

Program should run efficiently and quickly.

A memory efficient implementation is provided.

A fast implementation is provided.