

PROJECT TITLE: TIC TAC TOE APP

ABSTRACT:

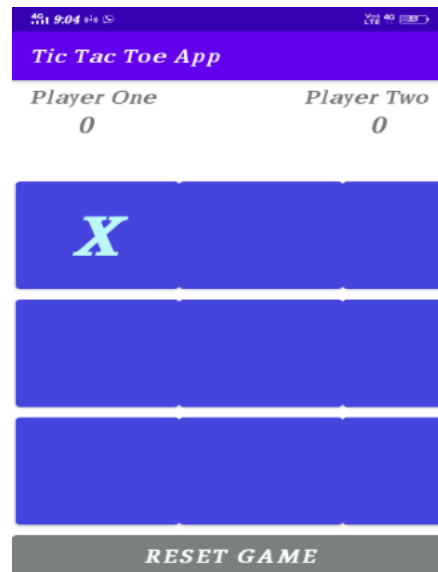
The game of Tic-tac-toe is one of the most commonly known games. This game does not allow one to win all the time and a significant proportion of games played results in a draw. Thus, the best a player can hope is to not lose the game. This study is aimed at evolving a number of no-loss strategies using genetic algorithms and comparing them with existing methodologies. To efficiently evolve no-loss strategies, we have developed innovative ways of representing and evaluating a solution, initializing the GA population, developing GA operators including an elite preserving scheme. Interestingly, our GA implementation is able to find more than 72 thousand no-loss strategies for playing the game. Moreover, an analysis of these solutions has given us insights about how to play the game to not lose it. Based on this experience, we have developed specialized efficient strategies having a high win-to-draw ratio. The study and its results are interesting and can be encouraging for the techniques to be applied to other board games for finding efficient strategies.

SCREENSHOT LAYOUT:

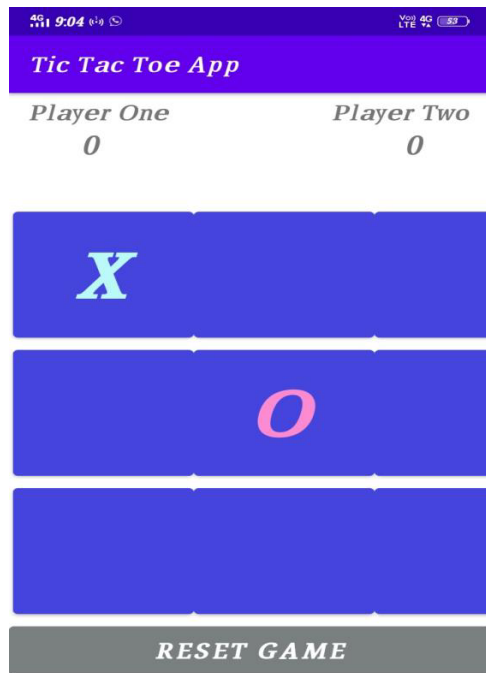
MAIN ACTIVITY:



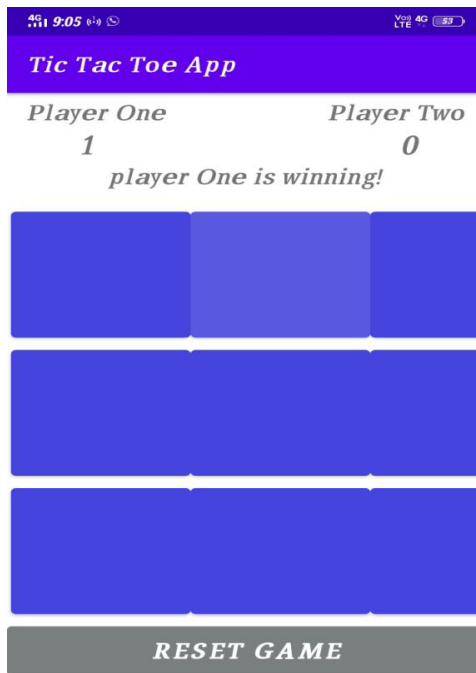
PLAYER ONE IS X:



PLAYER TWO IS O:



PLAYER ONE IS WINNING:



player One won!

PLAYER TWO IS WINNING:

