**Project Proposal**

**Final Version**

**(Group 14)**

The purpose of the project was to create a working version of the board game Ludo. Ludo is a strategy board game for two to four players (our game allows for just four player), in which the players race their four pawns or tokens from start to finish according to the rolls of a single die. When a six is rolled, the player can move his pawn out of his home and onto his own start position on the board. Players’ pawns can also be knocked off the board and sent back to their home if another player lands on the same spot. The game is won when one player gets all of their tokens to the end position.

Our program starts by asking the user for the player types. We have implemented two types of AI: aggressive and defensive. The aggressive AI will prioritize hitting other players’ tokens over everything else. The defensive AI will mostly move to positions that are safer from being hit by other players. In our version, we have added another die to make the game go faster and to increase the complexity. Because of this, we have increased the necessary die roll to 9 in order for a player to remove a token from their home. We have also made it so that if a number greater than 9 is rolled, the user can roll again.

Between both our graphical user interface version and our console-based version, we have finally been able to implement the same logic. Previously players were unable to knock other players’ tokens back to the home position in the GUI, but this is now possible. We have also made our GUI more attractive than it was before. The implementation of two different types of AI is also new since our last demo. Finally, we have split our GUI version into many more classes than it was before in the previous versions.