

### **Possible Future Networking.**

In the creation of our Malefiz game, we solely focus on playing the game between human players and against the computer. While we did not focus on making the game suitable to play online, we have implemented our code in a way in which a certain number of classes can be further modified and tweaked, and some simple addition of extra classes will make it possible for the game to be executed on a network-based platform.

We designed our code in a manner which could be easily comprehended by the user which would make future modifications of the code less tedious. In our current scenario our game switches between players after a dice has been rolled and each turn is either played by the object HumanPlayer class or a ComputerPlayer class. If it is the Human player's turn, they would have to click the roll dice option and move their pawn whereas if it is the computer player turn then the system would randomly move the pieces according to the algorithms provided by the programmer. If we would want to implement a networking platform where players can play against each other through their individual their system, then we would have to implement another class named OnlinePPlayer (arbitrary name).

If we were to speculate and implement a Network based Malefiz game, then the player who initiates the game from his computer would be given an option to choose if he/she would want to play against the computer or an online player. If they were to choose online player then they would be redirected to a server which would find an opponent for them to play against. The number of players which the user can be players against is up to their choice (maximum of 3).

Player 1 would be represented as an object of HumanPPlayer class in their own system the other players would be represented as objects of OnlinePlayer class. The player turns will be decided by rolling the dice. After a player rolls the dice, he/she selects the pawn to the location of his/her choice, the corresponding player would be prompted by the server to roll the die and the opponents will also be notified about their move. The system would help the player after he/she has rolled the die by highlighting the location of the places where the pawn can be placed, these highlighted locations will not be visible to the other players. The move made by the player would be sent to the server and then to the opponent's system making the player's move visible. The player can choose to exit the game at any moment, if the player were playing against a single opponent then after the user exits the game the opponent will be declared as a winner, if there is more than one opponent then the others would continue with their game even if a user chooses to exit.