

Vision Document

Introduction:

We build a digital version of the strategy board game Malefiz which is played since 1960. The game will allow up to 4 users with at least one human player (up to 3 computer players) and each user will be able to pick desired color. We provide option to select difficulty level(s) for computer player(s) and also color compatibility for color blind individuals.

Problem Statement:

There is no digital version of the Malefiz game currently which allow players to play the game without the physical board, 20 pawns (5 in each of 4 player colours), 11 barricades and a die in pieces. We make it more accessible to everyone by removing need for physical board with a digital version. 2 players living in different geo locations cannot play against each other since it is a physical board and we make it possible by creating a digitalised version of it.

Stakeholders and Key Interests

Stakeholders	Key Interests
Player	Should be able to play the game in single or multiplayer mode.
Developers	Realtime maintenance of the game, provide regular updates
Publisher	Publish, market and sell the game
License owners	Make profit or loss depending on sales and strategies

Users and Goals

Users	Goals
Player	Start game; New game; Load game; Save game; Game rules and instructions; Restart game; Quit game; Choose difficulty; Choose pawn colors; Roll dice and take/pass turns; Winner information.

Summary of System features:

- Allows user(s) to start, stop, restart, quit the game any anytime
- User(s) shall be able to save or load a saved game
- Allow user(s) to stop or resume the game
- The system should allow user(s) to select the number of players, human and computer players to play with (up to 4)
- User(s) can select the difficulty level
- User(s) can play in colour blind mode
- Provide the user(s) with the information about who's turn it is
- Provides user(s) with valid moves which allow them to move/place the pawn.
- Allows user(s) to pass the turn in the event of no possible valid moves or when user do not want to take the chance.
- User(s) should be able to view the game rules.
- Display the results of the game. (Winner/Looser)

Project risks:

Considering the complexity of the project which requires computer player(s) we need to make use of machine learning algorithms which no one in our group are familiar with. Providing difficulty levels of a computer player will be challenging and our team need to figure out how we are going to provide that feature. The project also requires advanced programming knowledge Java and Swing to develop GUI. Communication might be a hurdle because a teammate lives in a different time zone and 9 hours ahead of NST.