Vision Document

Introduction:

In this project we aim to build a computerized version of the KingDomino board game, allowing the player(s) to play a game involving 2 or 4 players.

Problem statement:

Currently, players playing the game are not able to easily save the game for later; there is also no option where one can change the difficulty level of the game; also you need to have enough players present to play the game; problems with differentiation of the colours is another issue; there are also humans errors while playing the game caused due to the inability of humans to properly comprehend the rules of the game immediately; it also takes a lot of time to set up the game. Our Computerized version of the game will allow the players to save the game to resume in a later session, by creating a save system to allow players to come and go as they please, by creating different colour settings we will help people with colour deficiencies to play the game, computer players (AI) will solve the problem of having enough players, through programming the rules of KingDomino are more easily enforced, through programming the game is automatically set up without any effort. There will also be an option where you can change the difficulty level of the game that is making it easy or hard. All these modifications will make the game more accessible, easy to play and open.

Stakeholder And key Interests:

Stakeholders	Key Interests
Human Player	selecting the number of computer players and playing the game productively and reliably
Computer Player	playing the game productively and reliably and responding in the game when its their turn.
Developer	maintaining and updating the game
Professor/TA	accommodation of the task from the developers on schedule and evaluating it and ensuring that it works as intended.

Parents	Developing the kid's cognitive skills like problem-solving and planning.
Game Company	Protecting intellectual property.

Summary of System Features:

- The system shall allow the users to play 2 or 4 player game.
- The system shall simulate required computer players for the game.
- The system shall allow the users to save the game.
- The system shall allow the saved game to resume in a latter session.
- The system shall allow for the selection of difficulty levels.
- The system shall allow switching between colour modes.
- The system shall allow another game to be played after finishing the previous.
- The system shall allow easy enforcement of the rules of the game.
- The system shall allow easy set-up of the game.

Project Risks:

Changing the game according to colour modes and the difficulty level selected might prove difficult in the time available due to no prior knowledge of AI in computer games and color modules. Saving and continuing the game from a saved session is also a challenging task to deal with.