**Requirement Specification**

**Vision**

The aim of this project is to create a Java Simulation version of the board game Monopoly. In this project, you can see some several features that is same with the board game version.

**Scope**

This game will provide the following functionality:

There is one and only interaction between user and the computer. User enters the number of players. This input must be between 2 and 8. System shows ‘GAME STARTED!’ message then all the players will created by the system. It means that there is no actual player. Then, system creates defaultly a board, 40 squares on the board, 2 dice, and 8 pieces. And then the system will assign different pieces for each player. Starting location of all the players is the square which is named as ‘START!’. Now there are 20 turn for every player. For the beginning, Player 1 starts to rolling his/her dice and move his/her piece to his/her new location. It means, piece will go to the square by the sum of the face values on the dice. And then the turn goes to the other player. When he/she played, turn goes to the other till the last player played. Now the second round will start. Game has 20 rounds by the way. The location of the players’ pieces will be updated during their turns. After the 20 rounds, (it means that each player played 20 times by turns) game will be over. Finally, system shows ‘GAME OVER!’ message.

**System constraints:**

\*Will run within a CMD environment and therefore no additional software to be installed on a client machine.

**Stakeholders:**

Murat Can GANİZ (Customer)

Ebru KIZILKİREN (Project Manager, Analyst/Programmer)

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**Glossary of Terms (Alphabetically listed)**

Board - A place where the game simulated and where squares, pieces and dice located

Die – An item that has 6 integer values from zero to six on its faces

Piece – An item that player owns to represent him/her.

Player - A person who plays game which is created by the system

Square – A location of a piece of a player. At the same time, one of the 40 parts of the board.

**Use Cases**

*User enters the how many player will exist.*

Actors: User, Monopoly Simulation System

Precondition: none

1: Monopoly Simulation System asks to user how many player will exist.

2: User enters a number.

3: Monopoly Simulation System shows ‘GAME STARTED!’ message.

4: Monopoly Simulation System creates the board, 40 squares on the board, the number of user entered players on the board, 8 pieces, 2 dice.

5: Monopoly Simulation System assigns a different pieces for all the players that is created.

6: Monopoly Simulation System located all the players on the square 0 which is named as ‘START!’

7: Monopoly Simulation System gives turn to each player 20 times (20 is number of rounds).

8: Monopoly Simulation System moves players’ pieces on the board according to their current locations and face values of their rolled dice.

9: When 20 rounds ended, game will be over.

10: Monopoly Simulation System shows ‘GAME OVER!’ message.

Alternatives:

2a: User enters the value which is smaller than 2.

1. Monopoly Simulation System says ‘Player number must be greater than or equal to 2’
2. Return to Step 2 and user enters new value for the number of players.

2b: User enters the value which is greater than 8.

1. Monopoly Simulation System says ‘Player number must be smaller than or equal to 8’
2. Return to Step 2 and user enters new value for the number of players.