

## **VISION**

We are designing a monopoly game that runs on the command line in this project. In doing so, we use object-oriented programming. User decide player numbers and their initial cash values. Every player has a piece. Then the selected piece are moved on the squares in the resulting of dice. There are may be go square, tax squares, jail square or property squares . When a player reaches a special square, the cost may increase or decrease depending on the special square that player landed. Game is ends when only one player remains.

## **USE CASES**

- It can be played between 2 and 8 people. The user determines how many people play
- The user decides how much cash each player will initially have.
- The game will continue until the last player remains. Each tour, one user will play one time. During the tour, you will advance on the board a number of squares as far as the sum of the rolls
- The results of each roll is displayed like this format; name , cash, current square, dice face values, dice total.
- When a player go to a square, the player's name, landed square, and actions associated with the landed square.
- There are 40 squares on the board. There is income tax square, luxury tax square, go square, jail square, go to jail square, railroad square, utility square, lots square, community chest square and chance square.
- Every player has their own money. When a player reaches a special square, the cost may increase or decrease depending on the special square that player landed.

-If a player comes to one of the property squares, if someone else has not taken that square and the player has enough money for his price, he can take it. After receiving another player comes to the square he bought, it will pay him rent.

-The player may go bankrupt if the cash falls to negative cash values.

## **SYSTEM CONSTRAINTS**

The program will work on command line. There is no user interface that users can interact with.

## **STAKEHOLDERS**

Murat Can Ganiz (Customer)

Berna Altinel (Customer)

İlyas Saadeddin Porhan (Project Manager, Analyst/Programmer)

Ömer Faruk Mercan (Project Manager, Analyst/Programmer)

## **GLOSSARY of TERMS**

**Board** : The main part of the game is played. It consists of 40 squares. Every side has 10 squares.

**Dice** : The player rolls a dice to play the game. Piece of the player moves as much as a dice face value.

**Piece** : Each player chooses the piece he wants when starting the game. No other player can choose a piece chosen by a player, so every player's piece is identifier for him. After the player rolls the dice and sees the number to move, the piece moves up to the value that was thrown in the hand.

**Square** : Normally squares have special properties but in this iteration each square has a number. The players move according to their frame numbers.

**Player** : is the person who plays the game . Player has name , a unique piece of his choice.

**Luxury Tax Square** : is a space on the Monopoly Board nestled between Park Place and Boardwalk. Players who land on it must pay \$75 to the Bank

**Income Tax Square** : is the fourth square on a standard Monopoly set, and is one of the least-liked spaces on the board. When a player has the misfortune to land on the Income Tax space, he or she must pay 10% of their total assets which means total cash on hand.

**Free Parking Square** : is a corner square on the board diagonally opposite to Go. When a player lands here nothing happens and they move off the space on their next turn.

**Go Square** : is the first square in the board. At the beginning of the game, every player starts on this square and they start with \$200 cash.

**Jail Square** : is a square that If the players normally do not have anything on them, but if they throw a double dice three times or go to the jail square, three rounds will be punished.

**RailRoad Squares** : are four railroad squares at positions 6,16,26,and 36 named as "RailRoad1", "RailRoad2", "RailRoad3", "RailRoad4". The price for a railroad square is 200. A player who lands on these squares will pay the owner 5 times the roll of a dice plus 25.

**Utility Squares** : are Squares at positions 13 and 29, named as "ElectricUtility" and "WaterUtility". The price for a utility square is 150. Player who lands on these squares will pay the owner 10 times the roll of a dice.

**Lots Square** : is a square that all property squares. They have their price and their rent. These informations are taken from a file.

**Scope**

Monopoly game will provide the following functionality for users:

Each player can write his own name.

The user decides how much cash each player will initially have.

İlyas Saadeddin PORHAN – 150114020

Ömer Faruk MERCAN – 150114018