## REQUIREMENT ANALYSIS DOCUMENT

## **VISION**

We imagine about creating the game called Monopoly. In the first iteration of the Monopoly, we aim to create a login page for the game. According to the game rules, we want to enter the number of squares and tax squares and we want the user/users to choose player's number between 2 and 8. After entering the number of the user, we expect the users to enter their name and starting money for the game. Then, game starts, board and their squares created. For the first iteration, the dice are tossed for each player that players start playing from go square and players moved on the board and their money decreases when they come to tax square.

For the second iteration, we added electric tax square, water tax square, go to jail square, in jail square, community chest card square and chance card square. In the electric and water tax square, decreases the money of player. In go to jail square, player goes to jail square and in jail square, player tries to get out of prison. In community chest and chance card square, player plays the game according to the card he/she draws.

For the third iteration, we added free parking square, railroad square, purchase and rental square, bagdat avenue, beyoglu avenue, taksim avenue and istiklal avenue. In free parking square, player waits and does nothing. In railroad and avenue squares, if the player wants to buy this field, player buyes or waits in this field.

## **PROBLEM STATEMENT**

In the first iteration, our aim is creating the general structure of the game and move the user's on the board. When the users move on the board, there will be some optional cases that will be left to the initiative of the user. Therefore, the game will not automatically completely. For instance, buying a house, using a chance card when you are in the jail, etc. In the first iteration, there will be just moving on the board. However, during the game there will be optional cases.

In the second iteration, specific frames have been added to the game. For instance, electric tax square, water tax square, go to jail square, in jail square, community chest card square and chance card square. Now the game proceeds according to the rules in these squares.

In the third iteration, new specific frames have been added to the game. For instance, free parking square, railroad square, purchase and rental square, bagdat avenue, beyoglu avenue, taksim avenue and istiklal avenue. Now the all squares is added and game game is completed.

## **SCOPE**

The monopoly game has different kind of a squares in the board to provide the continuity the game. In the starting, a dice tournament happens and the order of the players is determined. Before starting the game, a desired amount of money is disbursed to the players. The players can use these money to buy avenues and rent them. During the game there will be many cases to reduce the money of the player and determine the winner. In spite of that, the player can earn money from the avenues and each time he/she pass the starting point. The players also pay tax for Utilities as avenues. When the player less money than the tax, he/she goes bankrupt and loses the game. Until a one player who is winner stands in the game and other ones go bankrupt, the game continues.

# **SYSTEM CONSTRAINT**

Will run with in a Java IDE environment and therefore require no additional software to be installed on a client machine Will not provides a Graphical User interface.

### **STAKEHOLDERS**

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#### **GLOSSARY OF TERMS**

Dice: It rolls the dice.

Board: Where the game is played on and which contains received number of

squares.

Square: The location where the player is on and which are placed on the board.

GoSquare: The game starts this location.

Login: Part of received starting information in the game.

MonopolyGame: The game runs in this class.

Player: Person playing the game.

ReqularSquare: Unprocessed square.

TaxSquare: Part of received tax in the game.

ElectricTaxSquare: Part of received electric tax in the game.

WaterTaxSquare: Part of received water tax in the game.

GoToJailSquare: Player goes to jail square.

InJailSquare: Player tries to get out of prison.

CommunityChestCardSquare: Some squares on the board which are mostly about financial directions in the game.

ChanceCardSquare: Some squares on the board which contains some directions to change the flow of the game.

FreeParkingSquare: Player waits in this square.

RailRoadSquare: When players come this square, if the owner of the square exists, player pays rent to the owner. If there is no owner of the square, the player is asked if player wants to take the square, he or she pays price.

PurchaseAndRentalSquare: The location where the player purchase and rents squares.

Bagdat/Beyoglu/Istiklal/Taksim Avenue: House or hotel can be established in this square, the owner gets a rental income.

## **USE CASES**

- 1. Number of squares should be entered.
- 2. Number of tax squares should be entered.
- 3. Number of electric tax squares should be entered.
- 4. Number of water tax squares should be entered.
- 5. Number of community chest card squares should be entered.
- 6. Number of chance card squares should be entered.
- 3. Players number should be entered integer number between 2-8.
- 4. User enters the players' names.
- 5. User enters the starting money.
- 6. Game starts.
- 7. Players start the game respectively.
- 8. Player's money decreases if he/she comes to tax squares(electric, water tax).
- 9. If the player enters the prison and has enough money, he/she pays the money and the money decreases.
- 10. If the player comes to the location that has a chance card, the chance card is randomly selected.

- 11. If the player comes to the location that has a community chest card, the community chest card is randomly selected.
  - 12. If the player comes to the free parking, he/she does not do anything.
- 13. If the player comes to the railroad square and if the owner of the railroad square exist, player pays rent. If the owner of the railroad square does not exist and player wants to buy, player pays price of railroad square.
- 14. If the player comes to one of the avenues (bagdat, beyoglu, taksim, istiklal) and if the owner of the avenue square exist, player pays rent. If the owner of the avenue square does not exist and player wants to buy, player pays price of avenue square. And finally, if the player wants to establish a house or hotel in the square and has enough money, he or she can.
  - 15. The game ends when one of the players drops the money.