

REQUIREMENT SPECIFICATION

Vision

The aim of the project is to create a Java based object oriented implementation of Monopoly Game. Monopoly is a strategy game which players aim to be the richest one and have other players bankrupt at the end of the game.

The game will run on terminal where necessary parameters like name of player, number of players and initial money are taken from the user.

Problem Statement

Our monopoly game is played with between 2 and 8 players. One of the players is user and the others are controlled by computer. In game board there are 40 different blocks. Cities, rail ways, tax blocks, jail block, lucky card block... Blocks like cities, railways are available for purchase and these blocks have rents. The game firstly ask user for name, player number between 2 and 8, initial money and maximum turn number. The game will finished after maximum turn number if no player bankrupts. After that it rolls dice for every player and determines the play order. Then, players roll dice for step size and they will move on the board. If user arrives the block that available to purchase, the game ask to user “Do you want to purchase ... ?” but if player that controlled by computer arrives these blocks, then purchase block as long as they have enough money.

```
For Player Stacy Dices are :3 3
For Player Kazım Dices are :3 2
For Player Christina Dices are :6 2
Player nuri plays first..

For nuri dice :6 3

+-+--+
nuri and has 1000.0 money in the Gaziantep block.
Block Gaziantep price is :120.0 and rent price:80.0
Do you want to purchase Gaziantep block ? y/n
|
```

Players who arrives the block that already sold have to pay rent. If they have not enough money, they can sell owned blocks to gain money. If they have not enough block to sell then player bankrupts.

```
+-+--+
sevda and has 210.0 money in the Trabzon block.
Block Trabzon price is :240.0 and rent price:200.0
Do you want to purchase Trabzon block ? y/n
y
0) Don't sell any block!
1) owned block is: Sirkeci Railway price is: 200.0 and rent is: 50.0
2) owned block is: Çanakkale price is: 140.0 and rent is: 100.0
Choose block number to SELL in above list
|
```

Lucky Card block has some Lucky Cards. “Dept Card”, “Go To Jail Card”, “Happy Birthday Card” are some of lucky cards. Thanks to lucky cards, players gain or lose advantages.

If player goes jail, player has to pay penalty and wait three turn in jail. Railway blocks work like other cities but there is a different. The rent price of the railways grow linearly depend on owned railways count.

In final step, winner to be determined total wealth of players. It means, the sum of money and prices of owned blocks is determine the winner.

```
Game over :((
1. Player name : Stephan Money: 490.0
1) owned block is: Elaziğ price is: 260.0 and rent is: 220.0
2) owned block is: Pendik Railway price is: 200.0 and rent is: 50.0
Wealth:950.0
2. Player name : George Money: 160.0
1) owned block is: Kocaeli price is: 100.0 and rent is: 60.0
2) owned block is: Kastamonu price is: 140.0 and rent is: 100.0
Wealth:400.0
3. Player name : sevda Money: 110.0
1) owned block is: Çanakkale price is: 140.0 and rent is: 100.0
Wealth:250.0
4. Player name : Stacy Money: -100.0
Wealth:-100.0

Winner is Stephan

Process finished with exit code 0
```

Scope

The Monopoly Game will provide the following functionality:

- The game support one real user, other players controlled by computer.
- User can enter name, player number, initial money, maximum full turn number.
- User can decide whether or not to buy the blocks.
- User can sell owned blocks to does not bankrupt.
- User can sell owned blocks to buy new blocks if player does not have enough money.
- User can decide which block to sell in a menu.
- Dice rolling randomly and determine the turn and step size.

Stakeholders

Murat Can Ganiz

Berna Altinel

Emre Barkın Bozdağ - 150115030

Nuri Yıldız - 150115052

Sevda Durdu - 150115043

Glossary of Terms

Block – contains places which can be visited/bought by user

Board – a board with 40 blocks

Die – an object which creates random values

Go to jail – a block which causes penalties for players

Bankrupt – causes the game finish because does not enough money to continue