CSE 3063 – OBJECT ORİENTED SOFTWARE DESİGN

Monopoly Game Simulation
Programming Iteration #1

150116053 Eray Ayaz
150116012 Rahim Gün
150116016 Berk Köylü
150116055 Süleyman Barış Eser

About the Monopoly Game

Monopoly is the best-selling commercial board game in the world. Players compete to acquire wealt through stylized economic activity involving the buying,rental and trading
of proporties using play money, as players take turns moving around the board according to the roll of dice.
Players main goal is the drive to their opponents into bankrupt. Also on the board, there are diffrent kinds of cards and squares. Cards can be a sometimes chance or bad things. Squares divided into 5 parts. These are jail, tax,go,regular,arrested squares. Regular squares available for purchase and players can put a houses and hotels on that.
The game has numerous house rules and hundreds of different editions exist,in addition to many spin-offs and related media. Monopoly has become a part of international popular culture, having been locally licensed in more than 103 countries and printed in more than 37 language.

About the Project

Requirement Analysis

- Create an object-oriented based project.

- Must be suitable for first 5 Grasp Patterns.

- Provide a text based console of the Monopoly Game.

- The game should be maintable, ease of use and fast.

- The game should be play between 2-8 players.

- Players must roll the dice to move on the board

- If one player falls into jail, player must wait the 3 cycles.

- If the player runs out of money, it means that player has lost the game and the last remaining player wins the game.

- The player comes to tax square, player have to pay this money.

- The player comes to go square, player will receive the money.

- The player comes to reqular square, if that square is not taken by the other players, this player can buy the square and after player can put a houses and hotels on the square.

- Utility squares is the type of the squares which players can buy. There are two types of utility squares. First utiltity square name is water works and second one is electirc company.

- There are cards in the middle of the board. These cards can change the fate of the game. Some cards can bankrupt the players but sometimes players gain money from the cards.

- Observer have to enter the required parameters.

Vision

Monopoly game will be a object oriented and it will use the iterative development process to maintain and create the game.

Scope

The scope of the "Monopoly Game Project" is to create a Java based object oriented implementation of the Monopoly Board Game. Observer should be able to simulate the game after entering the required parameters in to the file.

Glossary of Terms

- Board – a playground which has a 40 squares.

- Die – an object which allows the player to move around the board.

- Piece – an object which assigned to every player before the game starts.

- Square – a place where each players walks on it and also it has a specific action when on it.

- Jail – a place where players should stay for a 3 cycle when they landed the gotoJail square.

- Player – a person who plays the monopoly game.

- Card – board has a special squares. When players on it they need to be take a card and will do what is written on card.

- Building – a object which is player can buy and build hotel and house on his/her property.

StakeHolders

Murat Can Ganiz (Customer)

Serap Korkmaz (Customer)

Eray Ayaz (Developer)

Berk Köylü (Developer)

Rahim Gün (Developer)

Süleyman Barış Eser (Developer)

Technologies

- IntellijIDEA
- GitLab
- JUnit

Programming Iteration #2

On the second iteration of Monopoly Game Project. Our added features are cards , utilities and purchasable squares. Also we made a little bit changes in game.

In game, when players roll a dices if dices are equal then the same player can roll a dice again. But in the same time , same player can not more than 3 times roll a dice. İf the players rolled then players will go to the jail. Also our second changes about game is before the start a game players will roll a dice and they make a queue start with biggest number to smallest one.

Cards are divided into two parts community chest cards and luck card. They are similar. Sometimes these cards make the players rich but at the same time these cards make you can bankrupt the players. Players should be always be careful when they are picking the cards.

Utilities names are raid road and water works. Players can buy these squares and when the other players came into to these squares which is owned by the player. Other players have to pay the rent of the squares.

Purchasable squares like a utilities square. Players can buy it and sell it. But selling function when the players in case of bankrupt game is automatically sell the some owned squares.

Programming Iteration #3

On the last iteration of Monopoly Game Project. Our new features are building,color groups and some updates for the our project.

We divided into normal squares into color groups. This update makes the game a little difficult becuase when the players need to buy all the regular squares of that color first to buy a house.

We added buildings to the game. If the player buy the all regular squares of that color then this player can buy a just one house. When the player comes to the same square again in the next rounds can add a house to this square.In every next round the price of the next house increases. If the player have a 3 houses player can take the hotel instead of house becuase 3 house is the maximum number of houses.