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Object Oriented Programming – Java

CSCE A222 Fall 2018

Monopoly Final Assignment

**Monopoly Final Assignment Write-Up**

I used 19 classes to implement this assignment.

* The *abstract Class Square* is the basis of all of 40 of the Monopoly Squares.
* TaxSquare, FreeParking, GoSquare, GoToJailSquare, JailSquare, Chance and Utility all extend *Square.*
* Buyable Square inherits from *Square* and allows the player to own *Squares.*
* RailRoadSquare, UtilitySquare, and PropertySquare all inherit from BuyableSquare.
* Almost all the classes use both the Player and Util classes.
  + The Util class is used to print out various statements and I had hoped to change the output to a JTextField to help improve my GUI, but I ran out of time.
* Monopoly Class is where the main method is.
  + It uses the Board Class, Die Class to roll dice, Util to print, and has ImagePanel Class that I used to load pictures for the game board and game pieces.
  + Board uses a Card Class to store the Chance and Community Chest Cards.

The Monopoly Class’s main method prompts the user to enter how many players there will be. Then it creates an Monopoly object which calls the Board class.

* The Board class reads from the provided text files and creates all of the Squares and game pieces.

The createGUI() method call game.startGame and the game begins. While there are still two or more Players who have not gone broke then the game continues. The players roll the dice and decide if they want to purchase Squares or not. The *doAction()* method is an Abstract method and is inherited by all Squares. It is used polymorphically when players land on a Square to do the corresponding action. After ten turns the game chooses the Player with the most money and declares them the winner.

This project was interesting and I wish that it could have been a group project, so that more of an effort could have put forth in order to make it dialed. I hope that this game satisfies all of the criteria. Thank you for an interesting semester.