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CS 202

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Final Project: Monopoly – Documentation

***Dice Class***

Dice( ) – creates two random number generators that will represent the dice

Roll1( ) – rolls one of the dice, the generator provides a number from 1 to 6

Roll2( ) – rolls the second dice, the generator provides a number from 1 to 6

totalRoll( ) – provides the sum of the dice, which will be the total amount that the player will move

***Board Class***

Board( ) – creates an array to represent the board, two queues, one for chance cards and one for community chest cards, and a hash table that holds the amount that each property is worth

fillBoard( ) – sets each spot in the array to the property title, jail is assigned a special area of the array

getValue( ) – gets the name of the property at a location in the array

location( ) – gives the location in the array for a specific property

hashTable( ) – fills in the hash table with the property name and the property value

getValueHash( ) – gets the value of the property from the hash table

fillChanceQueue( ) – fills the queue with chance card commands

drawChanceCard( ) – removes and returns the top ‘card’ from the chance commands and then adds it back to the queue

fillCommunityQueue( ) – fills the queue with community chest card commands

drawCommunityCard( ) – removes and returns the top ‘card’ from the community chest commands and then adds it back to the queue

***Player Class***

Player( ) – creates a player object with a name, money amount, location, and a property array

setName( ) – sets the player name

setMoney( ) – sets the player money amount

setLocation( ) – sets the player location

addProperty( ) – adds a property into the property array

getName( ) – gets the player name

getMoney( ) – gets the player money amount

getLocation( ) – gets the player location

getProperty( ) – gets the player property given a location in the property array

ownProperty( ) – linearly searches through the property array to determine if the player owns the property

amountofProperties( ) – returns the amount of properties that a player has

***Game Class***

Game( ) – creates an array list that holds player objects

addPlayer( ) – adds a player object to the array list

getPlayerName( ) – gets the player name from a location in the array list

getPlayerLocation( ) – gets the player location from a location in the array list

setPlayerLocation( ) – sets the player location in a location in the array list

getPlayerMoney( ) – gets the player money amount from a location in the array list

setPlayerMoney( ) – sets the player money in a location in the array list

getPlayerProperty( ) – gets a player property from a location in the property array from a location in the array list

removePlayer( ) – removes a player from the array list

clearPlayers( ) – completely clears out the array list

checkPlayerProperty( ) – searches to see if a player in the array list has the property

addPlayerProperty( ) – adds property to a player in the array list

amountofPlayers( ) – returns the amount of players in the game array

amountofProperties( ) – returns the amount of properties that a player has