

ColourLocation

Int numberOfHousesBought = 0 : Variable which keeps track of the number of houses on the property

Int numberOfHotelBought = 0 : Variable which keeps track of the number of hotels on the property

Int[] rent: Variable containing a reference to an array which contains the rents of the location.

Int mortgage : Variable containing the mortgage value of the location

Int houseCost : Variable which contains the price of upgrading the location

Int ownedByWhichPlayer = 10 : Variable which keeps track of who the owner of the property is, 10 is a dummy value

Int numofSameColourLocations : Variable which keeps the number of same colour locations. Used to upgrade the property – e.g has 3 red properties on the board

Boolean isOwned = false : Keeps track of whether the location is owned already. Default at false because it is not sold yet.

Constructor

```
public ColourLocation()
```

Default location

```
public ColourLocation(String colour, String name, int price,int defaultRent,  
int rent1, int rent2, int rent3, int rent4, int hotelRent, int mortgage, int  
houseCost,int position, int numOfSameColorLocations)
```

Constructor which initializes the ColourLocation Instance. Constructor places the name, price position into super constructor.

Colour : location colour

Name : location name

Price : location price

Default rent : rent without any upgrades

Rent1 : rent with one house

Rent2 : rent with two house

Rent3 : rent with three house

Rent4 : rent with four house

hotelRent : rent with a hotel

mortgage : selling price of the property

houseCost : cost of one house

position : the position of the location

numOfSameColorLocation : location that have the same colour

```
public int GetNumberOfHouses()
```

Getter method to get the number of houses

- Return type is int because it variable is an integer

Return number of houses bought

public int GetNumberOfHotels()

Getter method to get the number of hotels

- Return type is int because it variable is an integer

return number of houses bought

public int[] GetRentArray()

Getter method to get the rent array

- Return type is int because it variable is an integer

Return rent array

public int GetRent()

Getter method to get the rent of a property

- Return type is int because it variable is an integer

Return rent of a property based on the amount of upgrades done to the location.

public int GetMortgage()

Getter method to get the mortgage of a property

- Return type is int because it variable is an integer

Return the mortgage of a property

public int GetHouseCost()

Getter method to get the cost of a house

- Return type is int because it variable is an integer

Return the cost of buying a house on a property

public int GetOwnerOfProperty()

Getter method to get the owner of the property

- Return type is int because it variable is an integer

Return the owner of the property

public boolean GetIsOwned()

Getter method to check if the property is owned by someone

- Return type is boolean because it variable is boolean

Return a false to set that the property is not owned

public int GetNumOfSameColourLocations()

Getter method to get the number of property with the same colour

- Return type is int because it variable is int

Return an int to show how many property has the same colour

public boolean UpgradeProperty()

Method upgrade the properties by adding houses and hotels

- Return type is boolean because if true, will display that upgrade is successful! If false will display that it is not successful.

Return true when upgrade is successful

Return false when there is no upgrade being done due to property maxed out

public boolean DowngradeProperty()

Method to downgrade a property by selling their house or hotel

- Return type is boolean because if true, will display that downgrade is successful! If false will display that it is not successful.

Return true if there downgrade is successful.

Return false when property is not upgraded

public void BuyingProperty(**int** playerCounter)

Method to buy a property

playerCounter : Integer which takes in the current player who is buying the property

Void return because it is just setting properties in the method.

public void MortgageProperty()

Method to sell a property

Void return because it is just setting properties in the method. Does not take in any parameters because it just sets the property back to default state.