### Property

cost: intrent: intowner: Playercolor: String

- propertyName : String

+ Property()

+ Property(propertyName : String, color :

String, rent: int, cost: int)

+ toString(): String



#### Player

- colourPropertyMap : Map<String,

List<Property>>
- location : Property

- isBankrupt : boolean

- propertyLocation : String

- money : int

- properties : List<Property>

+ playerId : int

+ Player(money: int, aPlayerID: int) + addProperty(property: Property):

void

+ checkSet(property : Property) : void

+ isSetOwned(property: Property): boolean

+ removeProperty(property : Property)

: void

+ toString(): String

+ addMoney(propertySellCost: int): void

volu

+ removeProperty(propertyBuyCost:

int) : void

# **Board**

- newLocation : Property

- properties : ArrayList<Property>

+ Board()

- createProperties(): void

+ move(spaces : int, location : Property) :

Property

+ propertiesList(): ArrayList<Property>

+ toString : String

### Game

- currentPlayerIndex : int

playerCount : intscan : Scanner

- currentPlayer : Player

- dice : Dice

- gameOver : boolean

- players : ArrayList<Player>

- board : Board

+ Game(playerCount: int)

- initPlayers(): void

- run() : void

- getUserCommand(list :

List<String>) : String

+ buy(property: Property): void

+ sell(property: Property): void

+ pass(): void

+ quit() : void

+ nextPlayer(): void

+ payRent(property : Property) :

void

+ checkBankruptcy(): boolean

+ checkWin(): void

+ displayPlayerInfo(): void

+ help(): void

#### Command

- gameCommandsList :

List<String>

- userCommand : String

+ Command(word : String)

+ getUserCommand(): String

+ validCommands(aCommand:

String): boolean

+ commandUnknown(): boolean

+ getCommands(): List<String>

## Dice

+ die2 : int + die1 : int

+ Dice()

+ Roll(): void

+ sumOfDice(): int