

#### **Player Initial Conditions**

Each should immediately display appearance and display money, propertyOwned, railroadOwned, inJail upon click

#### Player

-name: String -money: Integer -propertyOwned -railroadOwned -inJail: Boolean +getMoney(): Integer -sendtoJail()

+passGo()

#### TopHat: Player

name : String = "Top Hat" money : Integer = 1500 propertyOwned = List[] railroadOwned = List[] inJail : Boolean = False

#### Thimble: Player

name: String = "Thimble" money: Integer = 1500 propertyOwned = List[] railroadOwned = List[] inJail: Boolean = False

#### Shoe: Player

name: String = "Shoe" money: Integer = 1500 propertyOwned = List[] railroadOwned = List[] inJail: Boolean = False

#### Battleship: Player

name: String = "Battleship" money: Integer = 1500 propertyOwned = List[] railroadOwned = List[] inJail: Boolean = False

#### Polymorphic Card

#### Card

-type : Char -value : Integer -used() -executeAct() +chooseCard()

#### Type Char Identifications

### If "Chance"...

Each should display **name**: "Chance""

Chance1: Card

type : Char = 'P' value : Integer = 15 Chance2 : Card

type : Char = 'A' value : Integer = 0 Chance3: Card

type : Char = 'B' value : Integer = 3 Chance4: Card

type : Char = 'E' value : Integer = 50 Chance5: Card

type : Char = 'J' value : Integer = 0 Chance6: Card

type : Char = 'C' value : Integer = 150

If "CC"...

Each should display **name**: "Community Chest""

CC1 : Card

type : Char = 'C' value : Integer = 100 CC2 : Card

type : Char = 'C' value : Integer = 200 CC3: Card

type : Char = 'P' value : Integer = 100 CC4 : Card

type : Char = 'J' value : Integer = 0 CC5 : Card

type : Char = 'C' value : Integer = 10 CC6: Card

type : Char = 'C' value : Integer = 20

#### **Property** name : String locIndex : Integer -propertyPrice : Integer -color : Char houseAmount : Integer -bought : Boolean

owner: Player

+addHouse()

+buy()

rentPrice : Integer

rentPrice1H : Integer

rentPrice2H: Integer

rentPrice3H : Integer

+ifBought(): Boolean

+getRentPrice(in houseAmount : Integer) : Integer

\*\* make sure to always update this class!

> 1: Property name : String = "Mediterranean Ave" locIndex : Integer = 1

propertyPrice : Integer = 60 color: Char = 'P' houseAmount : Integer = 0 bought : Boolean = False owner : Player = void rentPrice : Integer = 2 rentPrice1H : Integer = 10 rentPrice2H : Integer = 30

rentPrice3H : Integer = 90

2: Property

name : String = "Baltic Ave" locIndex : Integer = 3 propertyPrice : Integer = 60 color: Char = 'P' houseAmount : Integer = 0 bought: Boolean = False owner : Player = void rentPrice: Integer = 4 rentPrice1H : Integer = 20 rentPrice2H : Integer = 60

3: Property

name : String = "Oriental Ave" locIndex : Integer = 6 propertyPrice : Integer = 100 color: Char = 'T' houseAmount : Integer = 0 bought : Boolean = False owner: Player = void rentPrice: Integer = 6 rentPrice1H : Integer = 30 rentPrice2H : Integer = 90 rentPrice3H : Integer = 270

#### 4: Property

name: String = "Vermont Ave" locIndex : Integer = 8 propertyPrice : Integer = 100 color : Char = 'T houseAmount : Integer = 0 bought: Boolean = False owner: Player = void rentPrice : Integer = 6

rentPrice1H: Integer = 30

rentPrice2H: Integer = 90

rentPrice3H : Integer = 270

5: Property

name: String = "Connecticut Ave" locIndex : Integer = 9 propertyPrice : Integer = 120 color : Char = 'T' houseAmount : Integer = 0 bought: Boolean = False owner: Player = void rentPrice : Integer = 8 rentPrice1H : Integer = 40 rentPrice2H: Integer = 100 rentPrice3H : Integer = 300

6: Property

name: String = "St.Charles Place" locIndex : Integer = 11 propertyPrice : Integer = 140 color : Char = 'M' houseAmount : Integer = 0 bought: Boolean = False owner: Player = void rentPrice : Integer = 10 rentPrice1H : Integer = 50 rentPrice2H: Integer = 150 rentPrice3H : Integer = 450

7: Property

rentPrice3H : Integer = 180

name : String = "States Ave" locIndex : Integer = 13 propertyPrice : Integer = 140 color : Char = 'M' houseAmount : Integer = 0 bought: Boolean = False owner: Player = void rentPrice : Integer = 10 rentPrice1H: Integer = 50 rentPrice2H : Integer = 150 rentPrice3H : Integer = 450

8: Property

name: String = "Virginia Ave" locIndex : Integer = 14 propertyPrice : Integer = 160 color: Char = 'M' houseAmount: Integer = 0 bought: Boolean = False owner : Player = void rentPrice : Integer = 12 rentPrice1H: Integer = 60 rentPrice2H: Integer = 180 rentPrice3H: Integer = 500

#### 9: Property

name : String = "St.James Place" locIndex: Integer = 16 propertyPrice : Integer = 180 color: Char = 'O' houseAmount: Integer = 0 bought : Boolean = False owner: Player = void rentPrice: Integer = 14 rentPrice1H: Integer = 70 rentPrice2H: Integer = 200 rentPrice3H: Integer = 550

#### 10: Property

name : String = "Tennessee Ave" locIndex : Integer = 18 propertyPrice : Integer = 180 color : Char = 'O' houseAmount: Integer = 0 bought : Boolean = False owner: Player = void rentPrice: Integer = 14 rentPrice1H: Integer = 70 rentPrice2H : Integer = 200 rentPrice3H: Integer = 550

#### 11: Property

name : String = "New York Ave" locIndex: Integer = 19 propertyPrice : Integer = 200 color : Char = 'O' houseAmount : Integer = 0 bought : Boolean = False owner : Player = void rentPrice: Integer = 16 rentPrice1H: Integer = 80 rentPrice2H : Integer = 220 rentPrice3H: Integer = 600

#### 12: Property

name : String = "Kentucky Ave" locIndex : Integer = 21 propertyPrice : Integer = 220 color : Char = 'R' houseAmount : Integer = 0 bought : Boolean = False owner : Player = void rentPrice: Integer = 18 rentPrice1H: Integer = 90 rentPrice2H: Integer = 250 rentPrice3H : Integer = 700

# 13: Property

name : String = "Indiana Ave" locIndex : Integer = 23 propertyPrice : Integer = 220 color : Char = 'R' houseAmount : Integer = 0 bought : Boolean = False owner : Player = void rentPrice : Integer = 18 rentPrice1H: Integer = 90 rentPrice2H: Integer = 250 rentPrice3H: Integer = 700

## 14: Property

name : String = "Illinois Ave" ocIndex: Integer = 24 propertyPrice : Integer = 240 color : Char = 'R' nouseAmount : Integer = 0 bought : Boolean = False owner: Player = void rentPrice: Integer = 20 rentPrice1H : Integer = 100 rentPrice2H: Integer = 300 rentPrice3H : Integer = 750

#### 15: Property

name : String = "Atlantic Ave" ocIndex: Integer = 26 propertyPrice : Integer = 260 color : Char = 'Y' houseAmount : Integer = 0 bought : Boolean = False owner: Player = void rentPrice: Integer = 22 rentPrice1H : Integer = 110 rentPrice2H: Integer = 330 rentPrice3H: Integer = 800

#### 16: Property

name : String = "Ventnor Ave" locIndex : Integer = 27 propertyPrice : Integer = 260 color : Char = 'Y' houseAmount : Integer = 0 bought : Boolean = False owner: Player = void rentPrice : Integer = 22 rentPrice1H : Integer = 110 rentPrice2H: Integer = 330 rentPrice3H: Integer = 800

#### 17: Property

name : String = "Marvins Garden" locIndex : Integer = 29 propertyPrice: Integer = 280 color : Char = 'Y' houseAmount: Integer = 0 bought : Boolean = False owner: Player = void rentPrice: Integer = 24 rentPrice1H : Integer = 120 rentPrice2H: Integer = 360 rentPrice3H: Integer = 850

#### 18: Property

name : String = "Pacific Ave" locIndex : Integer = 31 propertyPrice: Integer = 300 color : Char = 'G' houseAmount : Integer = 0 bought : Boolean = False owner: Player = void rentPrice: Integer = 26 rentPrice1H: Integer = 130 rentPrice2H: Integer = 390 rentPrice3H: Integer = 900

#### 19: Property

name : String = "North Carolina Ave" locIndex : Integer = 32 propertyPrice: Integer = 300 color: Char = 'G houseAmount : Integer = 0 bought: Boolean = False owner : Player = void rentPrice : Integer = 26 rentPrice1H: Integer = 130 rentPrice2H: Integer = 390 rentPrice3H: Integer = 900

#### 20: Property

name : String = "Pennsylvania Ave" locIndex: Integer = 34 propertyPrice: Integer = 320 color: Char = 'G' houseAmount : Integer = 0 bought: Boolean = False owner : Player = void rentPrice : Integer = 28 rentPrice1H: Integer = 150 rentPrice2H : Integer = 450 rentPrice3H : Integer = 1000

#### 21: Property

name : String = "Park Place" ocIndex : Integer = 37 propertyPrice : Integer = 350 color : Char = 'B' nouseAmount : Integer = 0 bought : Boolean = False owner : Player = void entPrice : Integer = 35 entPrice1H: Integer = 175 entPrice2H: Integer = 500 entPrice3H : Integer = 1100

#### 22: Property

name : String = "Boardwalk" ocIndex : Integer = 39 propertyPrice : Integer = 400 color : Char = 'B' nouseAmount : Integer = 0 bought: Boolean = False owner : Player = void entPrice : Integer = 50 entPrice1H: Integer = 200 entPrice2H: Integer = 600 entPrice3H : Integer = 1400

# **Color options:**

'P': Purple (2) 'T': Turquoise (3) 'M': Magenta (3) 'O': Orange(3) 'R': Red (3) 'Y': Yellow (3) 'G': Green(3) 'B': Blue (2)

Each property, upon hover over property space (will decide on coordinates for each space) will display the following: property name, price, color, house amount, whether bought and by whom, current rental price (depending on whether there are houses or not and also whether it is actually bought or not)

# \*\*\*Make sure to update this with final 'property'at end (w/ complete methods)

# Railroad

-name : String -locIndex : Integer

-propertyPrice : Integer = 200 -bought : Boolean

-owner : Player -calculateRent() +ifBought() +buy()

#### 1: Railroad

name : String = "Reading RR" locIndex : Integer = 5 propertyPrice : Integer = 200 bought : Boolean = False owner : Player = void

#### 2: Railroad

name : String = "Pennsylvania RR" locIndex : Integer = 15 propertyPrice : Integer = 200 bought : Boolean = False owner : Player = void

#### 3: Railroad

name: String = "B&O RR" locIndex: Integer = 25 propertyPrice: Integer = 200 bought: Boolean = False owner: Player = void

#### 4: Railroad

name: String = "Short Line" locIndex: Integer = 35 propertyPrice: Integer = 200 bought: Boolean = False owner: Player = void

# -name : String -locIndex : Integer -calculatePay() : Integer -addToCV()

#### Income: Tax

name : String = "Income" locIndex : Integer = 4

#### Luxury: Tax

name : String = "Luxury Tax" locIndex : Integer = 38

# -name : String -locIndex : Integer

-locIndex : Integer -bought : Boolean -otherBought : Boolean

-calculatePay(in ifBought, in diceRoll) : Integer

+payUtility()

+ifBought(): Boolean

+buy()

#### Electric: Utility

name : String = "Electric Company" locIndex : Integer = 12 bought : Boolean = False otherBought : Boolean = False

#### Water: Utility

name : String = "Water Works" locIndex : Integer = 28 bought : Boolean = False otherBought : Boolean = False