UML CLASS DIAGRAM

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2, ..., 8

MonopolyGame

+ NUM_OF_PIECES : int = 8
- die1 : Die
- die2 : Die
- mainBoard : Board
- players : ArrayList<Player>

+ MonopolyGame(ArrayList<Player>)
+ startGame(int) : void
+ printWithDelay(String, long) : void
+ printBorder(int, int) : void
+ runSimulation(Calendar, SimpleDateFormat, int, int) : void
+ printPieceOwners() : void
- getMenuChoice() : int
+ rollDiceForTurn() : void
+ sort(ArrayList<Player>) : void
+ randomDecision(Player) : boolean

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Die

- faceValue : int
- rand : Random

+ Die()
+ setFaceValue() : void
+ getFaceValue() : int

Main

+ main(String[ ]) : void
+ getNumberOfPlayers() : int
+ getPlayerNames(int) : String[ ]

Player

- name : String
- turn : int
- piece : Piece
- cash : Cash
- isSuspended : boolean
- suspensionCounter : int
- doubleCounter : int
- isBankrupt : boolean

+ Player(String, int, Piece, Cash)
+ rollDice(Die, Die) : int
+ getPiece() : Piece
+ getTurn() : int
+ setTurn(int) : void
+ getCash() : Cash
+ toString() : String
+ setSuspendent(boolean) : void
+ isSuspended() : boolean
+ incrementSuspensionCounter() : void
+ getSuspensionCounter() : int
+ resetSuspensionCounter() : void
+ checkMoney() : boolean
+ incrementDoubleCounter() : void
+ getDoubleCounter() : int
+ resetDoubleCounter() : void
+ setBankrupt(boolean) : void
+ isBankrupt() : boolean

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Square <>

- name : String
- index : int

+ Square(String)
+ toString() : String
+ getIndex() : int
+ setIndex(int) : void
+ action(Player) : void <>

Piece

- shape : PieceShape
- square : Square
- currentIndex : int

+ Piece()
+ Piece(PieceShape, Square)
+ getShape() : PieceShape
+ moveTo(int) : void
+ moveTo(Square) : void
+ getSquare() : Square

PieceShape

- shapeName : String

+ PieceShape(String)
+ toString() : String

Board

+ SIZE : int = 40
+ squares : Square[ ]

+ getSquaresFromTextFile() : Square[ ]
+ getSquare(int) : Squre

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Cash

- amount : long

+ Cash(long)
+ getAmount() : long
+ addCash(amount:long) : void

RegularSquare
+ RegularSquare(String) + action(Player) : void

```
+ main(String[ ]) : void
+ getNumberOfPlayers() : int
+ getPlayerNames(int) : String[ ]
+ check(String[ ], String) : boolean
+ initializePlayers(String[ ], String[ ], int) : ArrayList<Player>
+ randomShape(String[ ]) : PieceShape
+ getShapeNames() : String[ ]
+ getNumOfIterations() : int
```

```
+ Cash(long)
+ getAmount() : long
+ addCash(amount:long) : void
+ dropCash(amount:long) : void
+ dropCash(percentage:int) : void
+ toString() : String
```

GoSquare

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+ GoSquare(String)
+ action(Player) : void
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IncomeTaxSquare

```
+ IncomeTaxSquare(String)
+ action(Player) : void
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LuxuryTaxSqaure

```
+ LuxuryTaxSquare(String)
+ action(Player) : void
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GoToJailSquare

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+ GoToJailSquare(String)
+ action(Player) : void
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FreeParkingSquare

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+ FreeParkingSquare(String)
+ action(Player) : void
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GoToJailSquare

+ GoToJailSquare(String)
+ action(Player) : void