

# *The Jungle Game*

## **Cheshire Coders**

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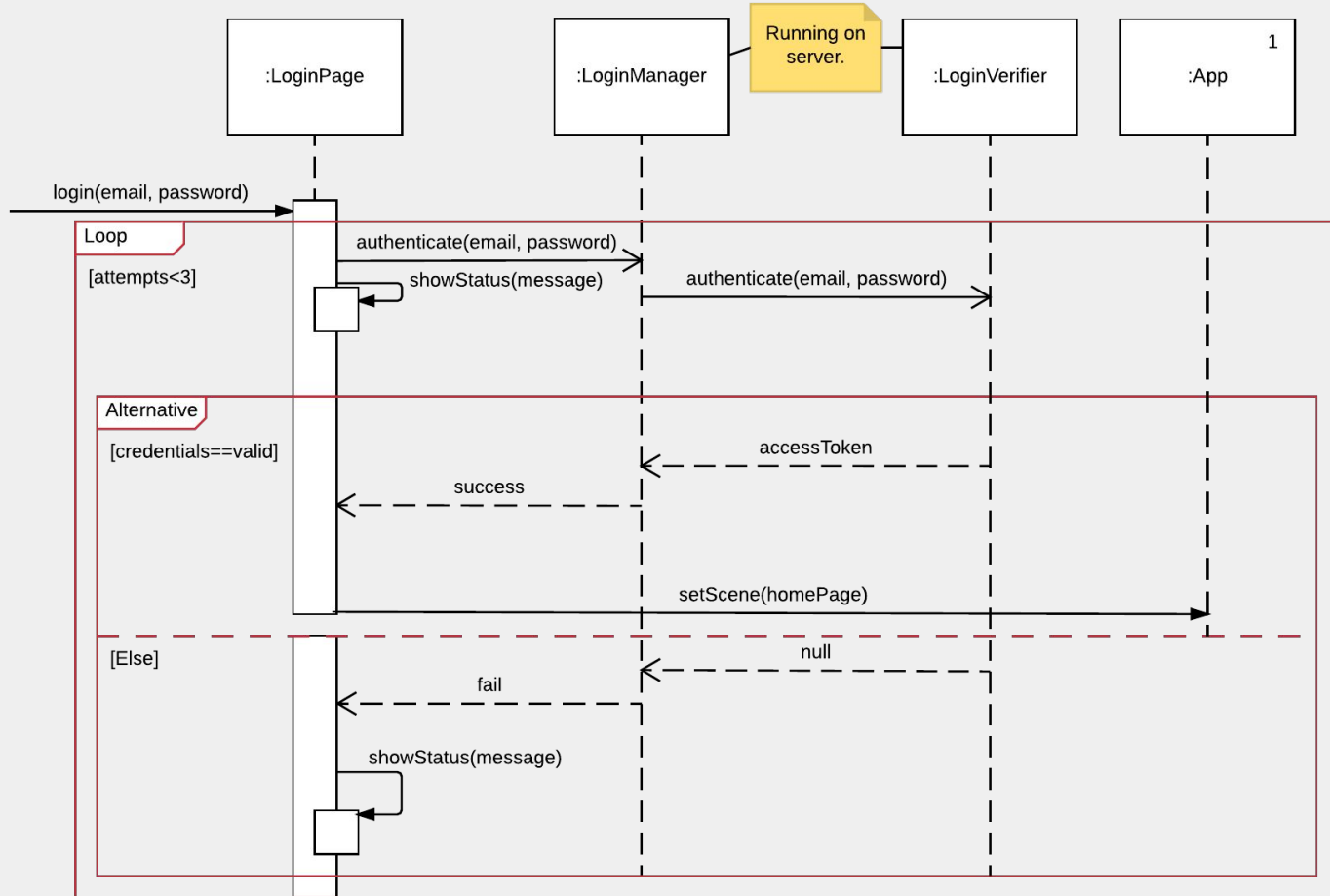
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- First version of the system

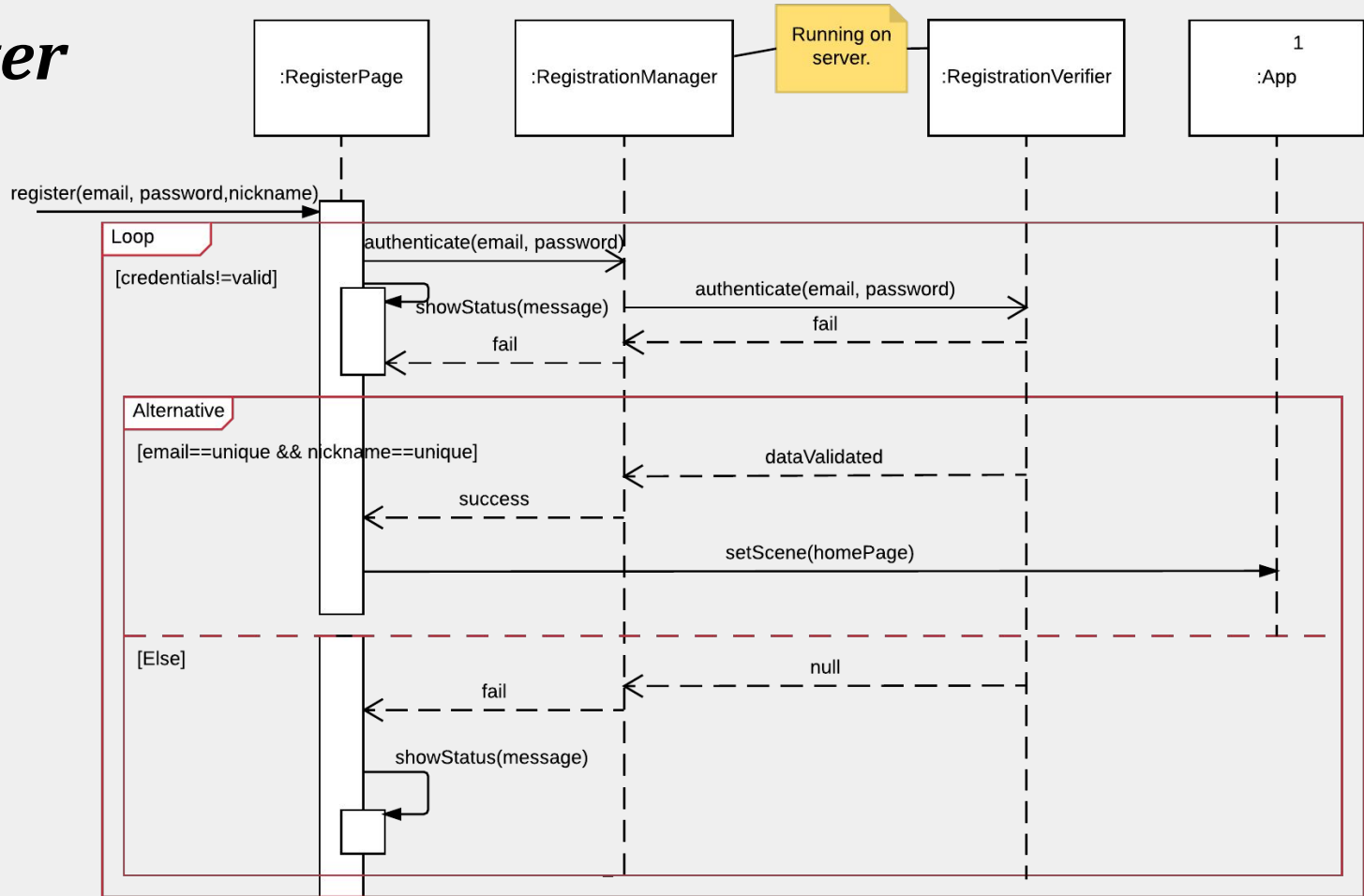
# *Sequence diagrams*

- Login
- Game Invite
- Game Create
- Register
- Take Turn

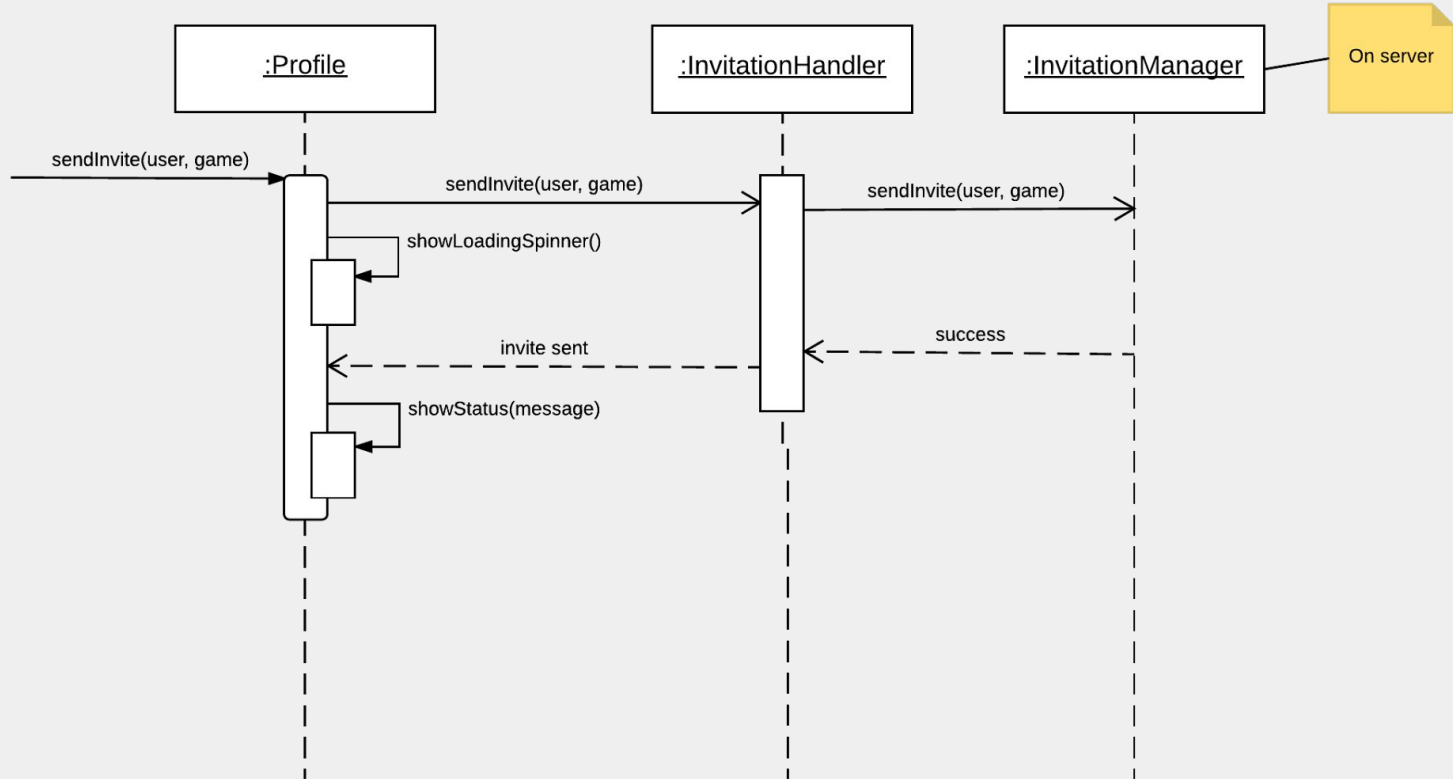
# Login



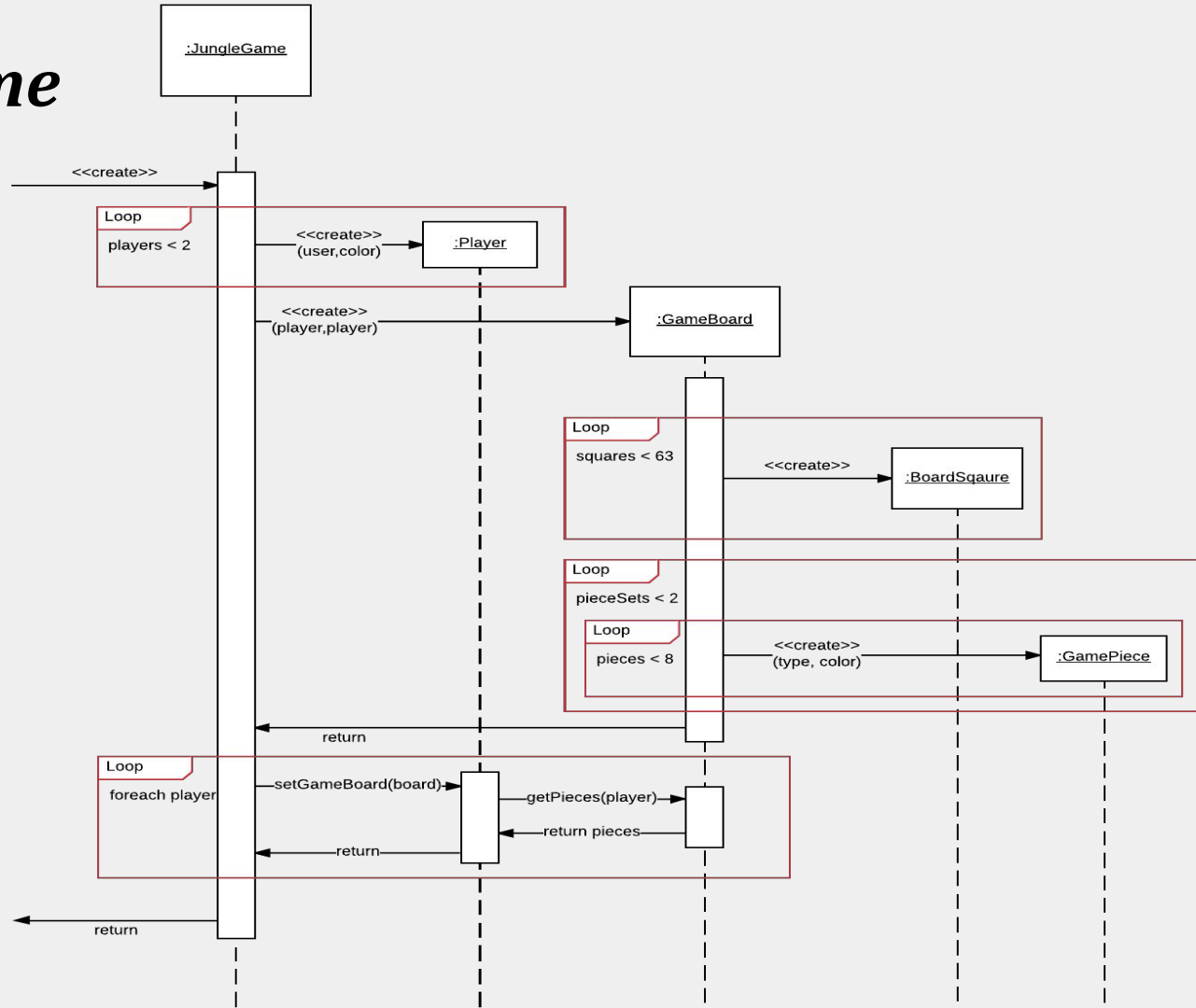
# Register



# Game Invite



# Create Game



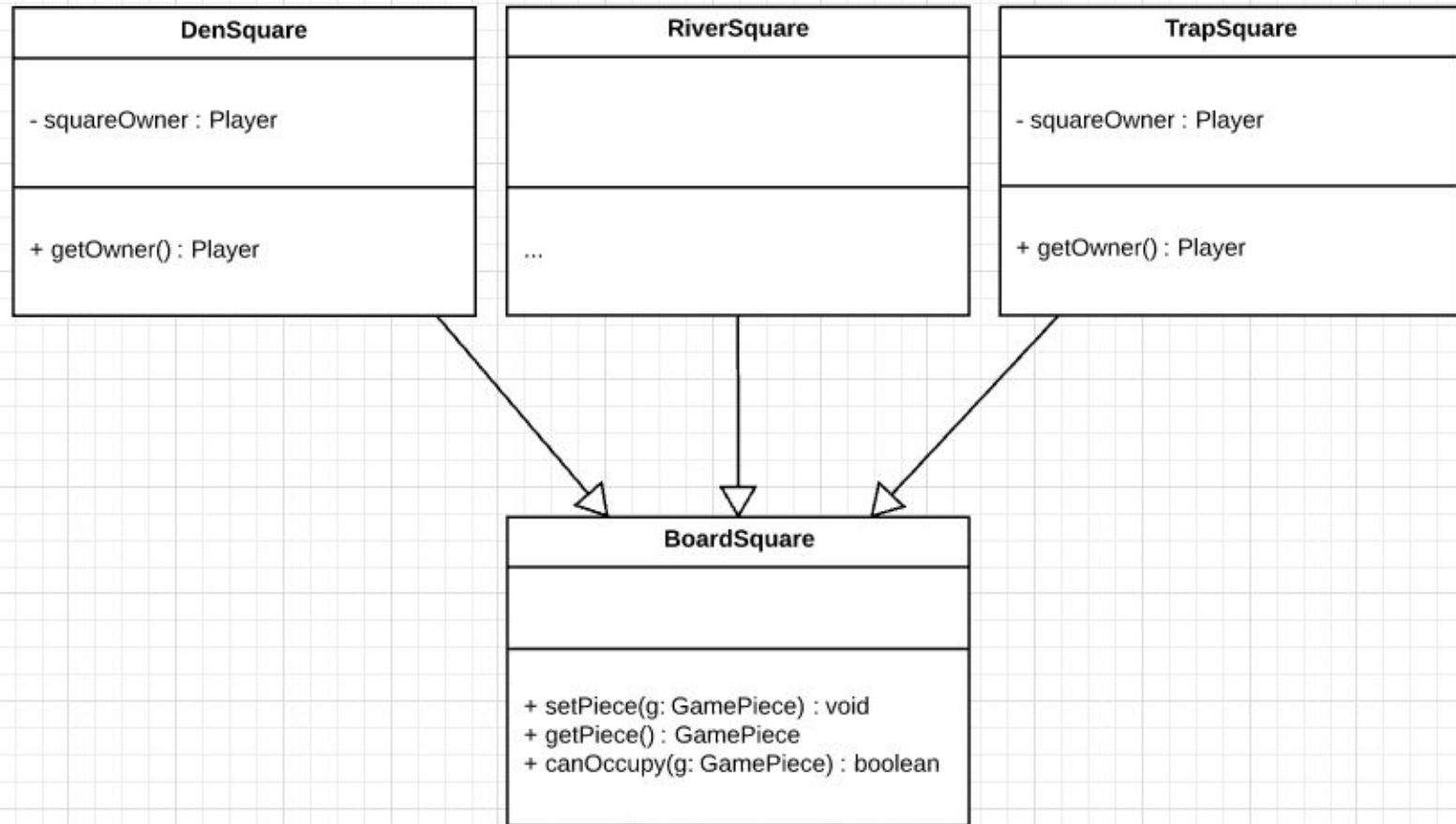
```

classDiagram
    class OneSquare {
        -squareOwner: Player
        + getOwner() Player
    }
    class RiverSquare {
    }
    class TopSquare {
        -squareOwner: Player
        + getOwner() Player
    }
    class BoardSquare {
        + setPiece: GamePlace - void
        + getPiece() GamePlace
        + isEmpty: GamePlace - boolean
    }
    class GamePlace {
        + pieceType: PieceType
        + row: int
        + column: int
        + isEmpty: GamePlace - boolean
    }
    class GameBoard {
        + gamePieces: Collection<GamePlace>
        + movePiece: GamePlace, direction: int - void
        + createPiece: int, int, Collection<GamePlace> - void
        + capturePiece: GamePlace - void
    }
    class PieceType {
        + name: String
        + color: Color
        + shape: Shape
    }
    class Player {
        + playerName: String
        + color: Color
        + score: int
        + play: GamePlace, GamePlace - void
    }
    class JungleGame {
        + gameID: int
        + startDate: Date
        + endDate: Date
        + status: String
        + gamePieces: Collection<JungleGame>
        + jungleGame: JungleGame
        + getGameID: int, JungleGame
        + movePiece: int, int, Collection<GamePlace> - void
    }

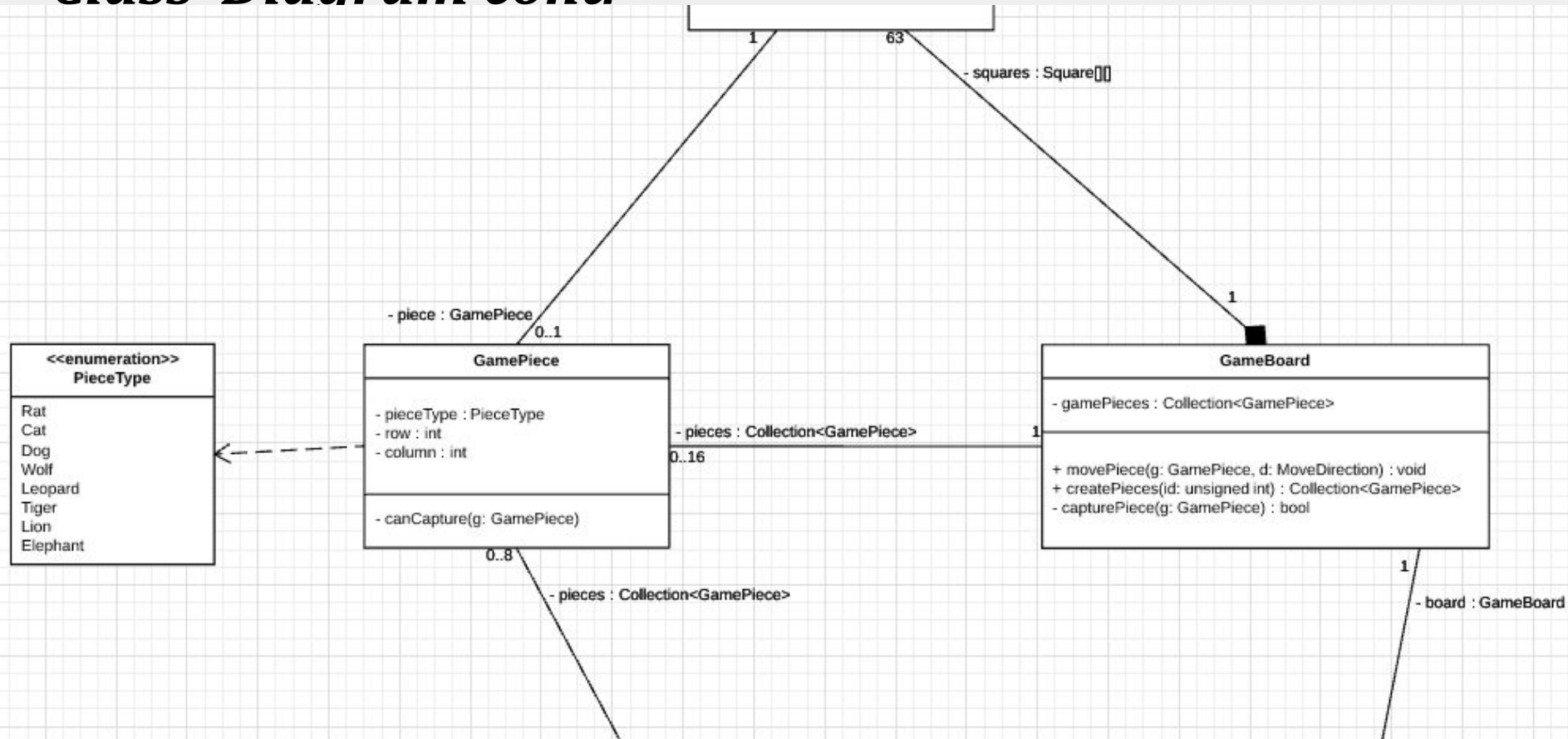
    OneSquare --|> BoardSquare
    RiverSquare --|> BoardSquare
    TopSquare --|> BoardSquare
    BoardSquare "1" -- "0..1" GamePlace : piece: GamePlace
    BoardSquare "1" -- "0..1" GameBoard : square: Square[]
    GamePlace "1" -- "0..1" GameBoard : pieces: Collection<GamePlace>
    GamePlace "1" -- "0..1" Player : piece: Collection<GamePlace>
    GameBoard "1" -- "1" JungleGame : board: GameBoard
    Player "1" -- "1" JungleGame : playerOne: Player
    
```



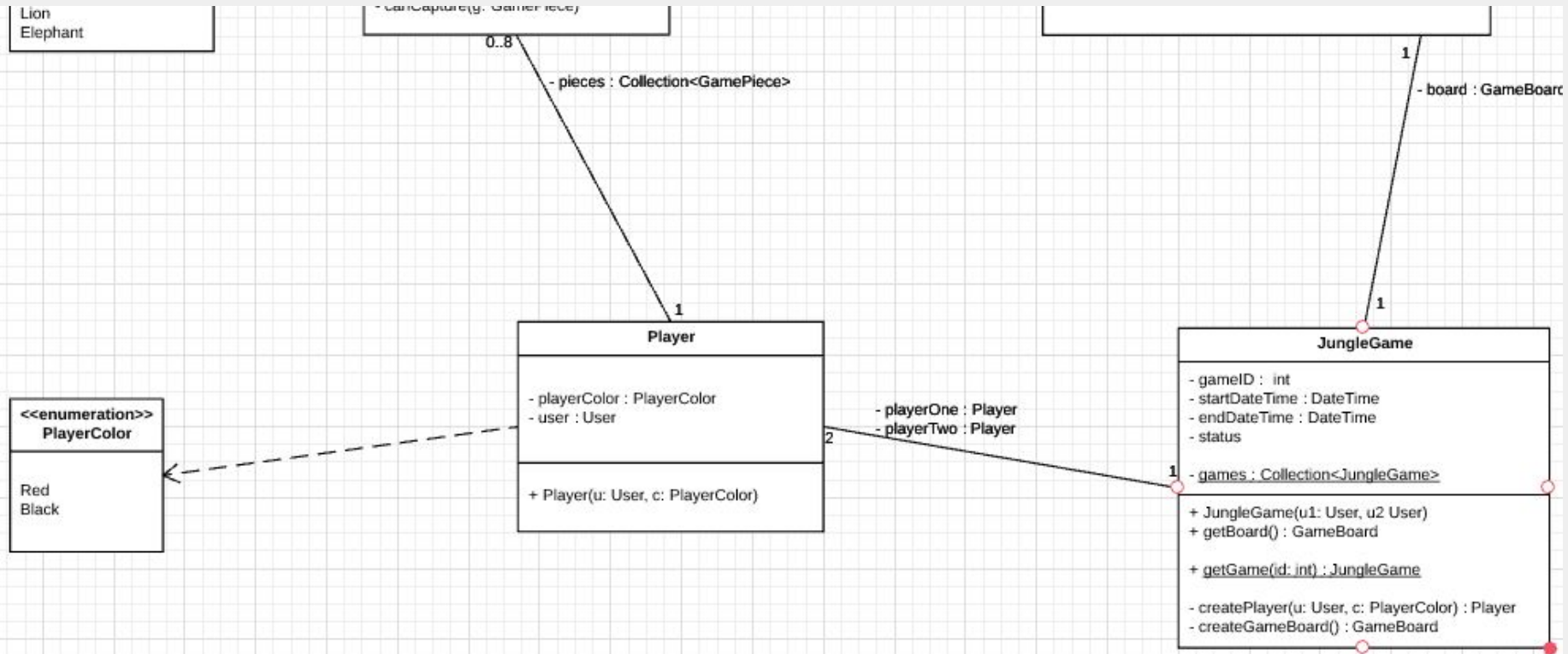
# Class Diagram



# Class Diagram cont.



# Class Diagram cont.



# *List of test cases:*

## **TestBoardSquare:**

- testSetLocation\_bottom\_right\_corner
- testSetLocation\_column\_too\_big
- testSetLocation\_column\_too\_small
- testSetLocation\_row\_too\_big
- testSetLocation\_row\_too\_small
- testSetPowerLevel\_zero
- testSetPowerLevel\_too\_small
- testSetPowerLevel\_eight
- testSetPowerLevel\_too\_big
- testCanOccupy\_river
- testCanOccupy\_river\_rat
- testCanOccupy\_friendly\_piece
- testCanOccupy\_friendly\_den
- testCanOccupy\_square\_not\_adjacent\_row
- testCanOccupy\_square\_not\_adjacent\_column
- testCanOccupy\_square\_not\_adjacent\_leopard

## **TestGameBoard:**

- testGetPieceAt\_normal
- testGetPieceAt\_column\_too\_big
- testGetPieceAt\_column\_too\_small
- testGetPieceAt\_empty\_square
- testGetPieceAt\_row\_too\_big
- testGetPieceAt\_row\_too\_small
- testGetSquareAt\_top\_left\_table\_edge
- testGetSquareAt\_bottom\_right\_table\_edge
- testGetSquareAt\_column\_too\_big
- testGetSquareAt\_column\_too\_small
- testGetSquareAt\_row\_too\_big
- testGetSquareAt\_row\_too\_small
- testGetValidMoves\_corner
- testGetValidMoves\_leopard
- testMovePiece

## **TestBoardSquare:**

- testConstructorWithPlayerColor
- testClearPiece
- testIsEmpty
- testIsEmpty\_not
- testSetPiece
- testSetPiece\_null

# **Questions And Discussions**