

The Jungle Game

Cheshire Coders

- Angélica Fallas
- Taner King
- Adam Gundem
- Alexander Hennings
- Cameron Ackerman



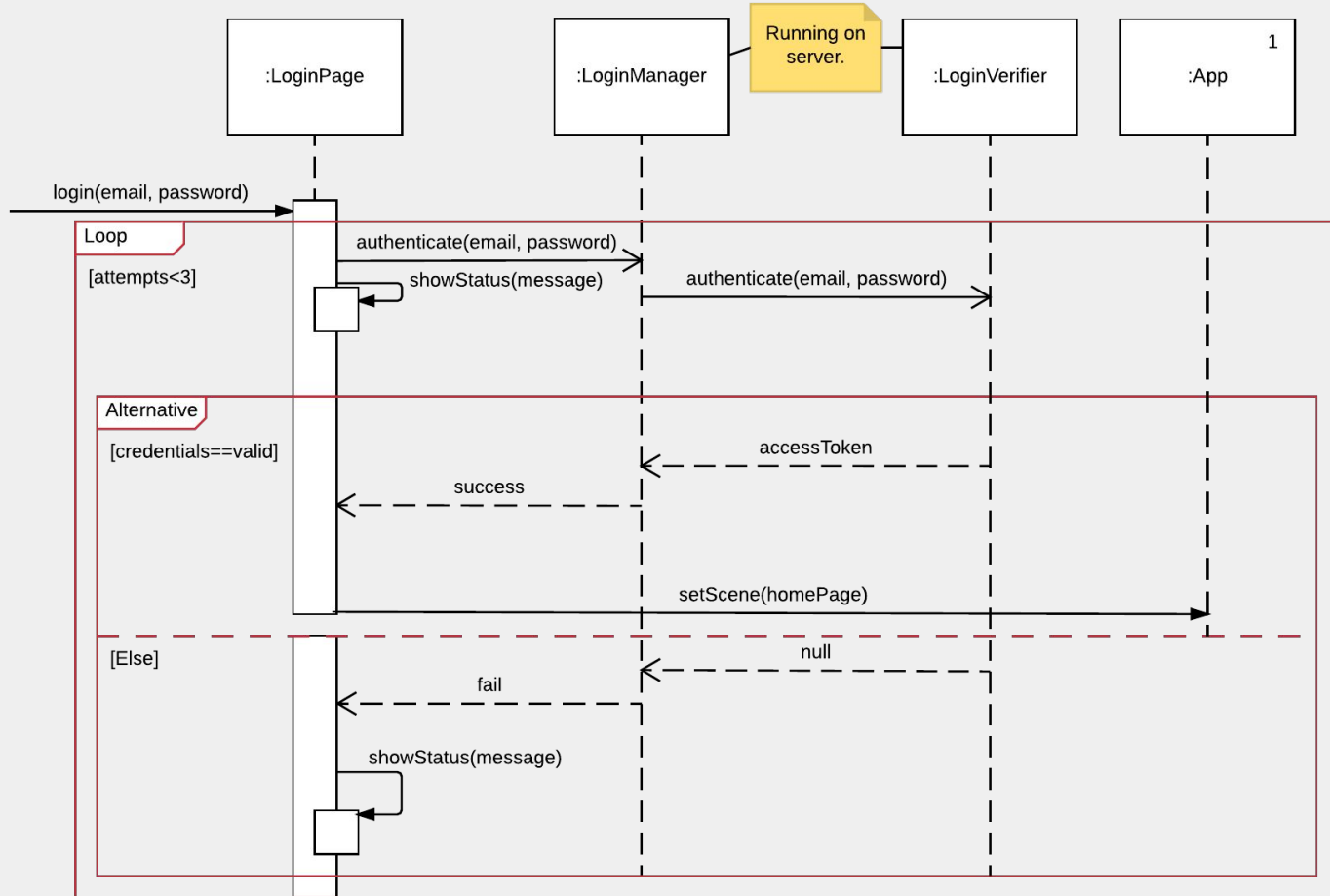
Table of contents

- Sequence diagrams
- Class diagram
- System test cases
- JUnit test cases.
- First version of the system

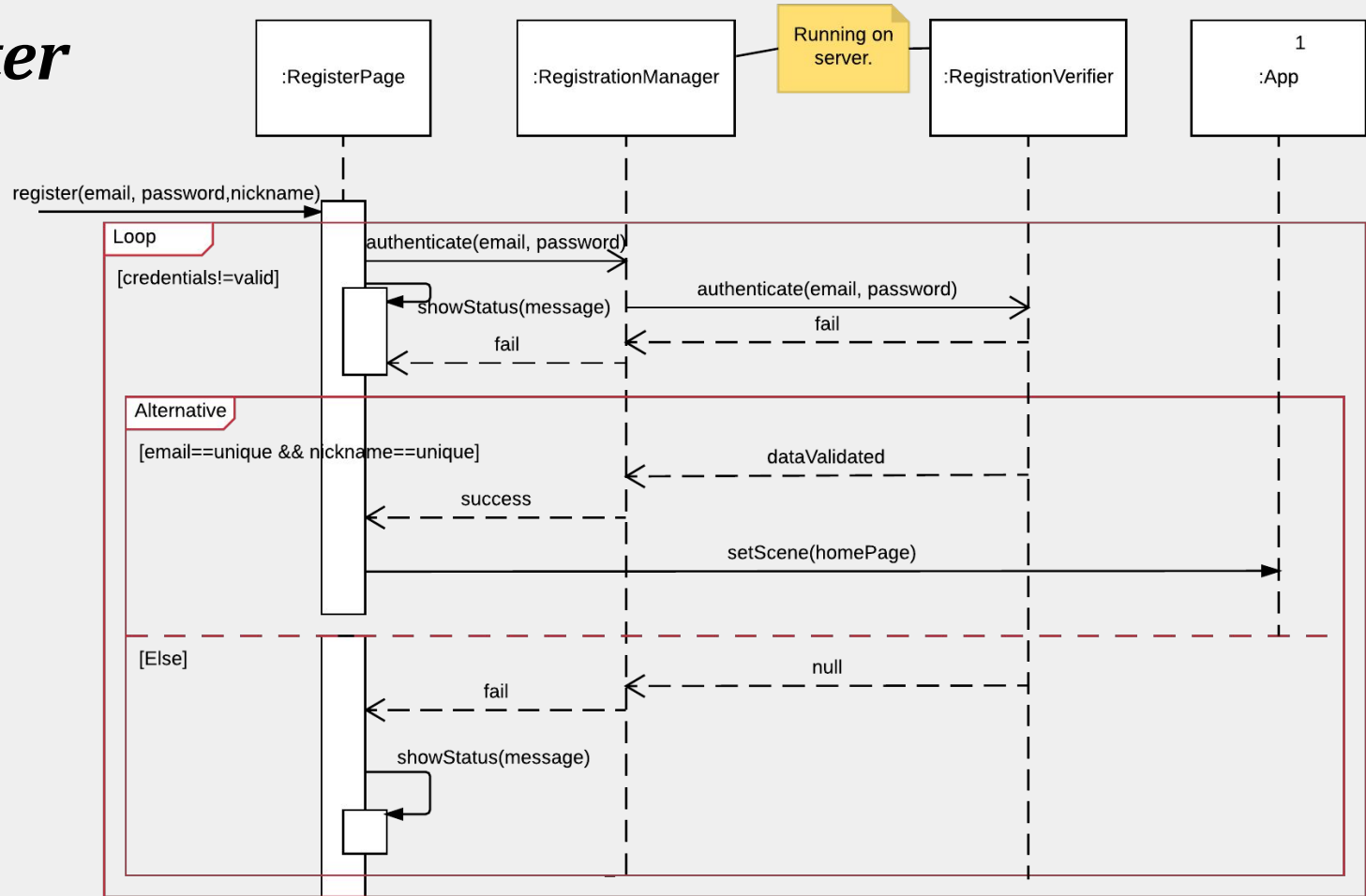
Sequence diagrams

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

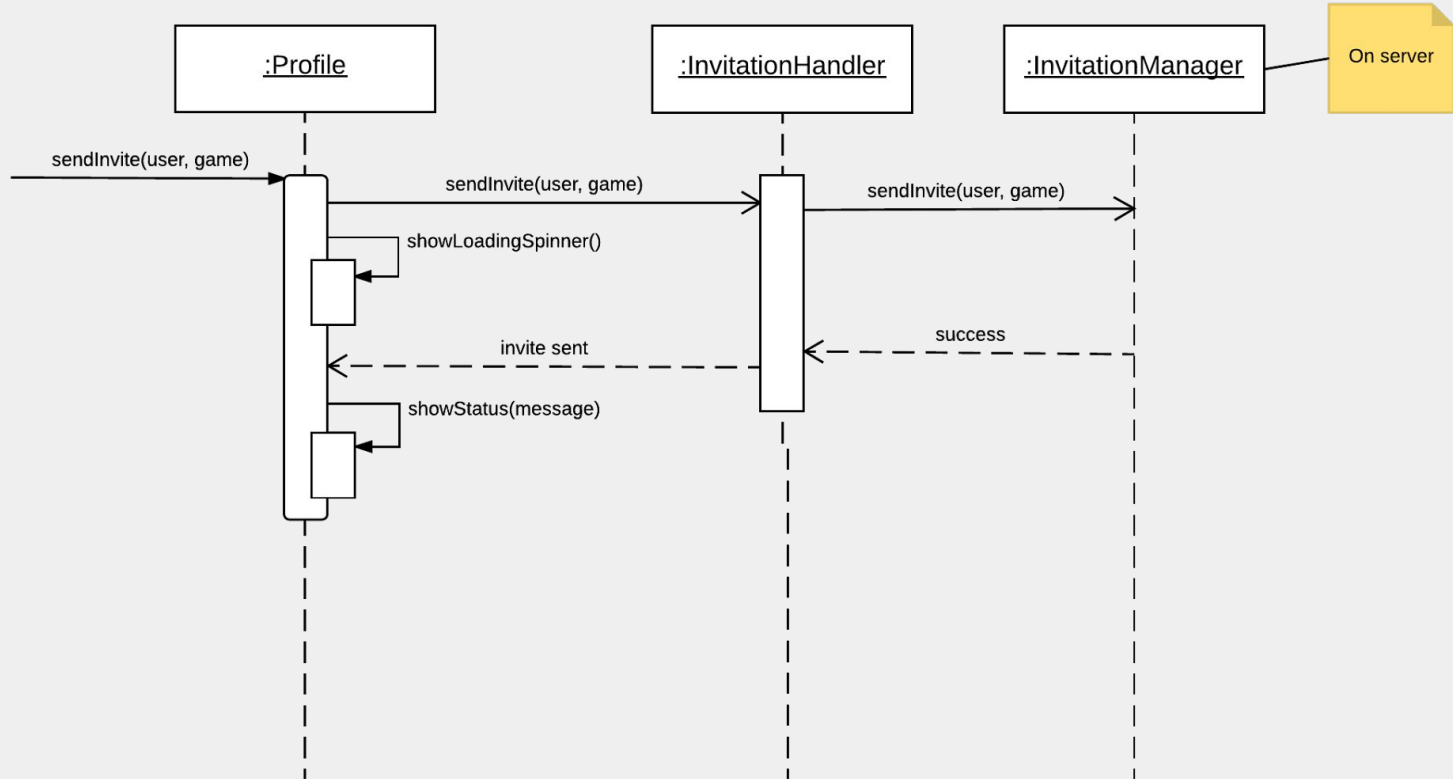
Login



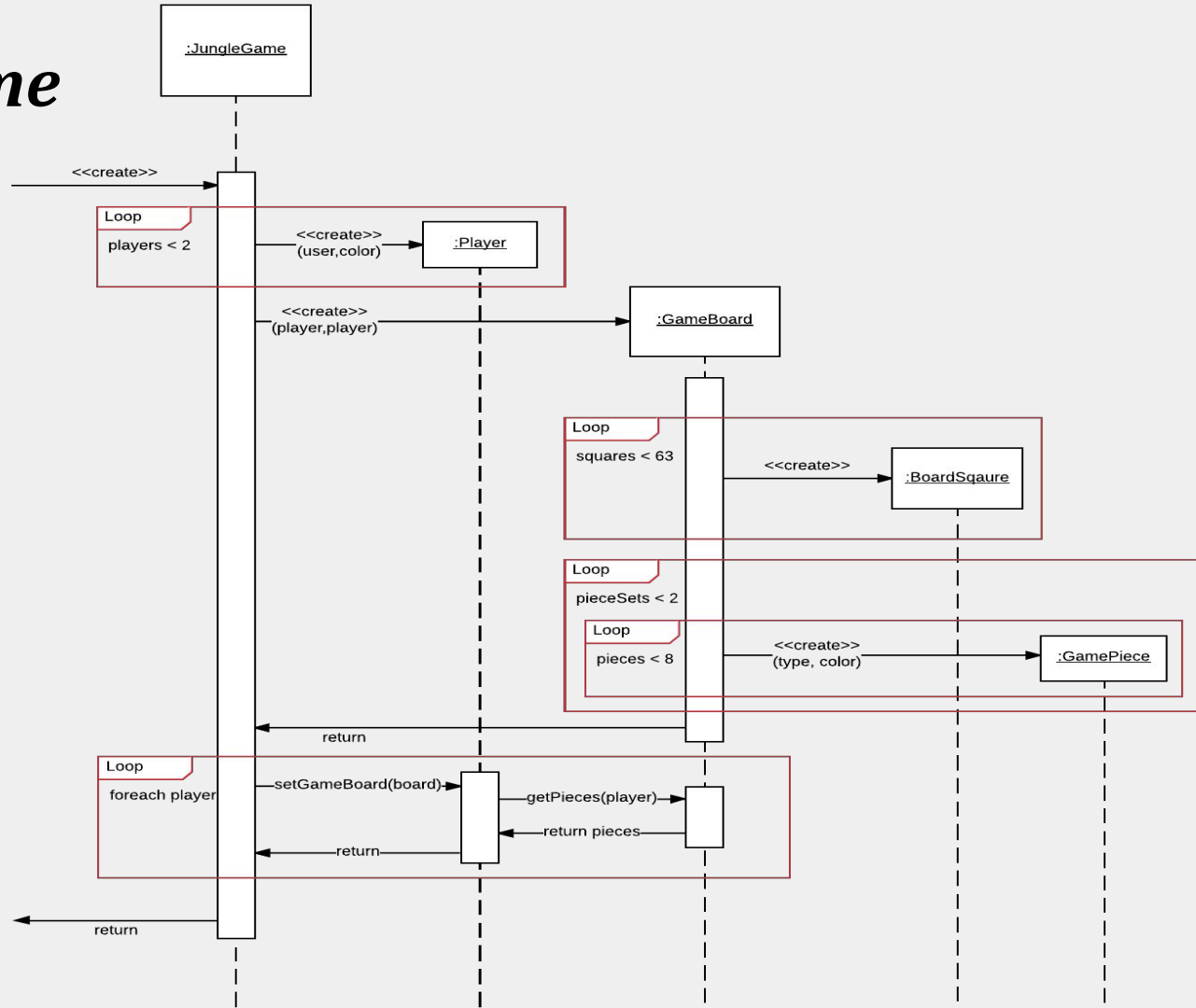
Register



Game Invite



Create Game

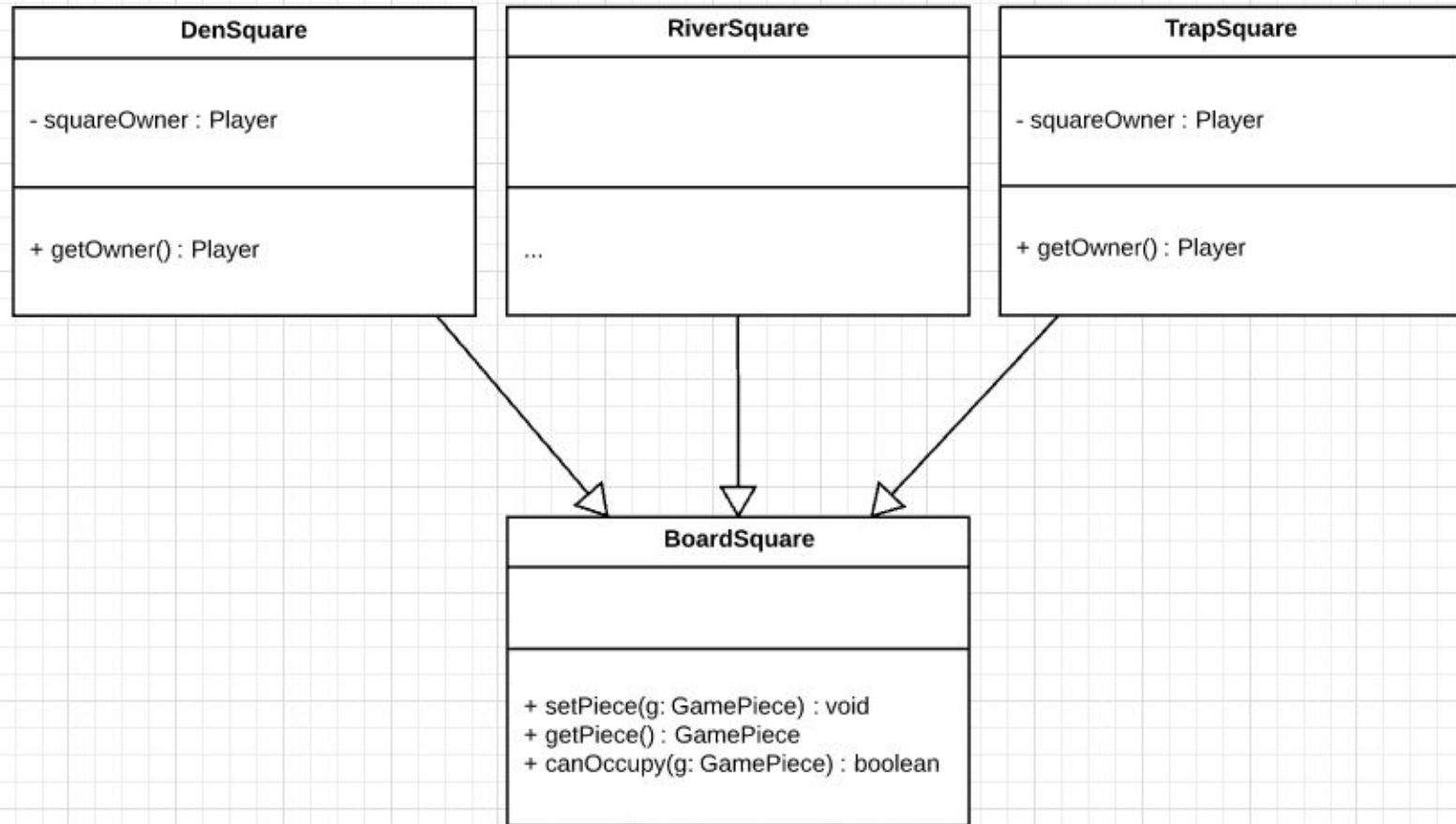


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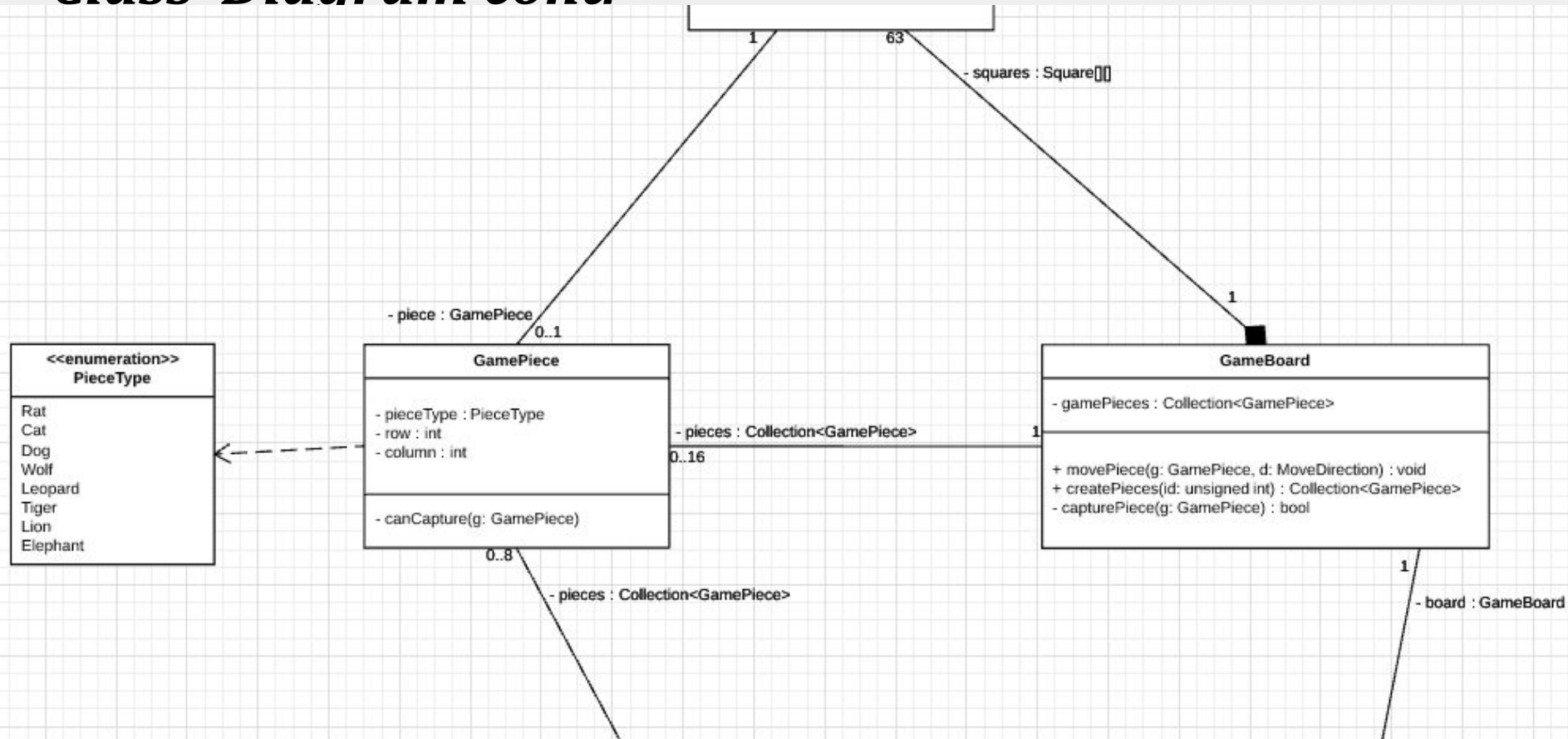
classDiagram
    class DessSquare {
        -squareOwner: Player
        +getOwner() Player
    }
    class RiverSquare {
    }
    class TopSquare {
        -squareOwner: Player
        +getOwner() Player
    }
    class BoardSquare {
        +isFree() bool
        +getPiece() GamePiece
        +canOccupy() bool
    }
    class GamePiece {
        -pieceType: PieceType
        -row: int
        -column: int
        -canCapture() bool
    }
    class GameBoard {
        -gamePieces: Collection<GamePiece>
        +move() bool
        +canMove() bool
        +capture() bool
    }
    class Player {
        -playerColor: PlayerColor
        -color: Color
        +Player(c: Color, c: PlayerColor)
    }
    class JungleGame {
        -gameID: int
        -startGameTime: DateTime
        -endGameTime: DateTime
        -status
        -gamePieces: Collection<JungleGame>
        +JungleGame(i: int, s: int)
        +getGameID() int
        +getGameStatus() int
        +move() bool
    }
    class PieceType {
        -name: string
    }
    class PlayerColor {
        -color: Color
    }

    DessSquare --|> BoardSquare
    RiverSquare --|> BoardSquare
    TopSquare --|> BoardSquare
    BoardSquare "1" -- "63" GamePiece : piece
    GameBoard "1" -- "63" GamePiece : board
    GameBoard "1" -- "63" GamePiece : gamePieces
    GamePiece "0..1" -- "0..1" GamePiece : piece
    GamePiece "0..1" -- "0..1" GamePiece : capture
    Player "1" -- "1" GamePiece : player
    Player "1" -- "1" GamePiece : color
    Player "1" -- "1" GamePiece : playerColor
    JungleGame "1" -- "1" GamePiece : gameID
    JungleGame "1" -- "1" GamePiece : startGameTime
    JungleGame "1" -- "1" GamePiece : endGameTime
    JungleGame "1" -- "1" GamePiece : status
    JungleGame "1" -- "1" GamePiece : gamePieces
    JungleGame "1" -- "1" GamePiece : JungleGame
    JungleGame "1" -- "1" GamePiece : move
    
```

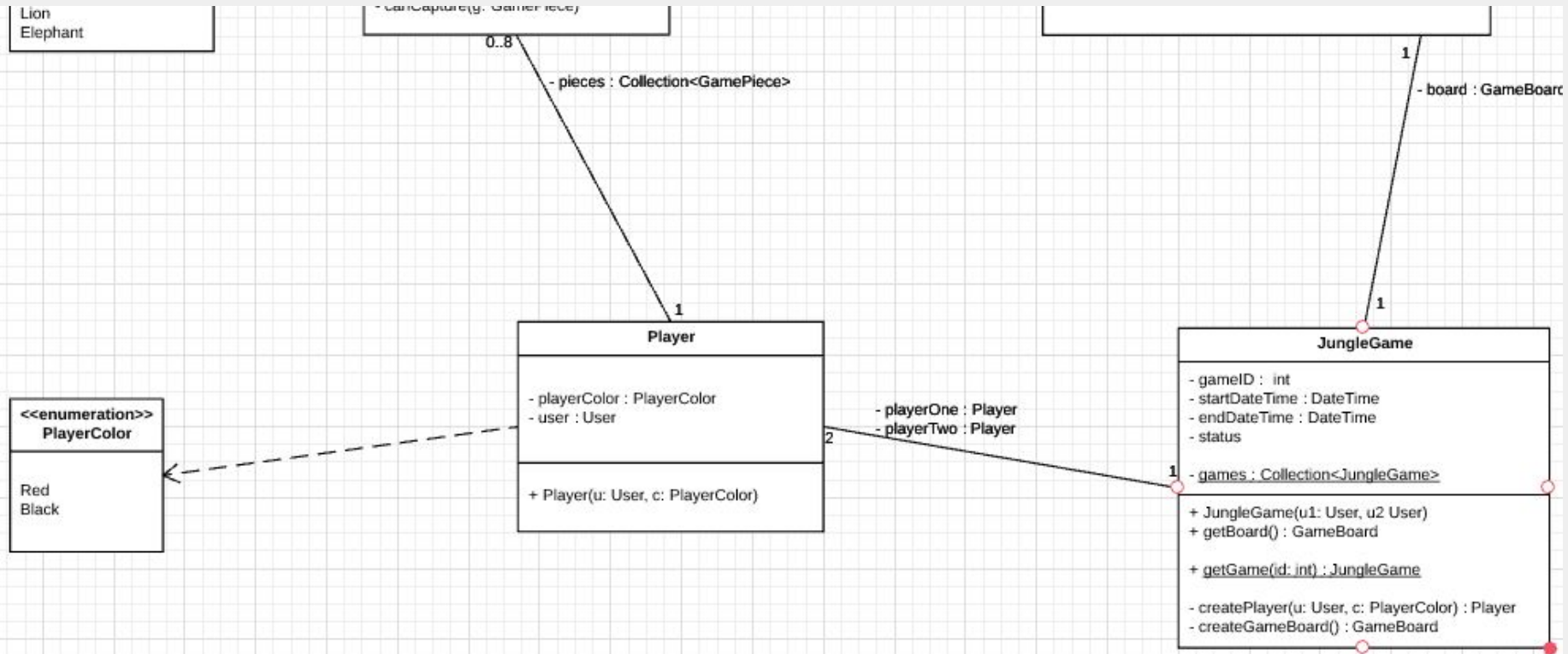

Class Diagram



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

TestAccountHandler

- testRegisterUser
- testRegisterUserAlreadyRegistered
- testRegisterUserFailure
- testUnregisterUser
- testValidateLogin
- testLogout

TestBoardSquare:

- testConstructorWithPlayerColor
- testClearPiece
- testIsEmpty
- testIsEmpty_not
- testSetPiece
- testSetPiece_null

Questions And Discussions