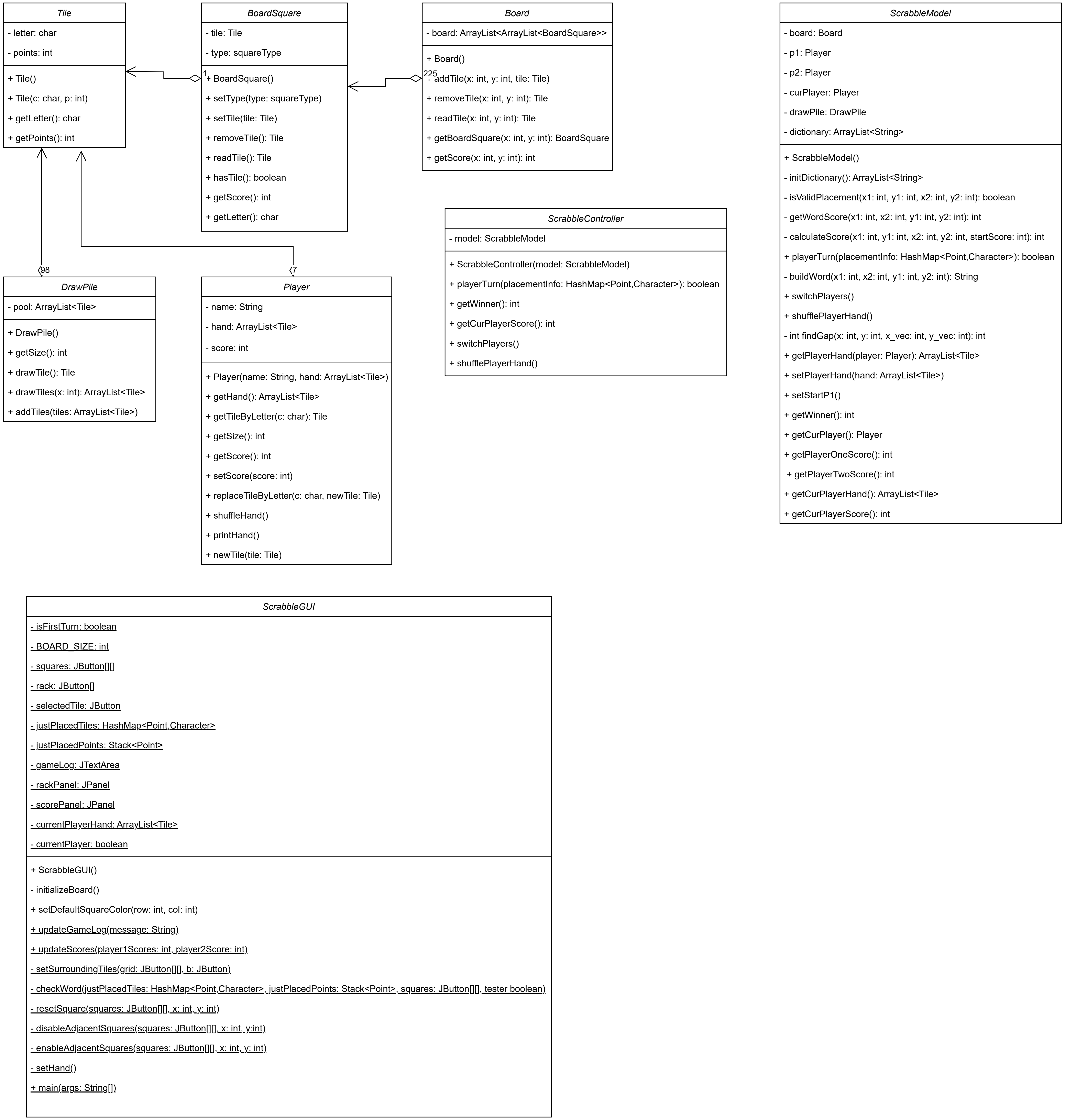

Tile

- letter: char
- points: int

+ Tile()
+ Tile(c: char, p: int)
+ getLetter(): char
+ getPoints(): int

BoardSquare

- tile: Tile
- type: squareType

+ BoardSquare()
+ setType(type: squareType)
+ setTile(tile: Tile)
+ removeTile(): Tile
+ readTile(): Tile
+ hasTile(): boolean
+ getScore(): int
+ getLetter(): char

Board

- board: ArrayList<ArrayList<BoardSquare>>

+ Board()
+ addTile(x: int, y: int, tile: Tile)
+ removeTile(x: int, y: int): Tile
+ readTile(x: int, y: int): Tile
+ getBoardSquare(x: int, y: int): BoardSquare
+ getScore(x: int, y: int): int

ScrabbleModel

- board: Board
- p1: Player
- p2: Player
- curPlayer: Player
- drawPile: DrawPile
- dictionary: ArrayList<String>

+ ScrabbleModel()
- initDictionary(): ArrayList<String>
- isValidPlacement(x1: int, y1: int, x2: int, y2: int): boolean
- getWordScore(x1: int, x2: int, y1: int, y2: int): int
- calculateScore(x1: int, y1: int, x2: int, y2: int, startScore: int): int
+ playerTurn(placementInfo: HashMap<Point,Character>): boolean
- buildWord(x1: int, x2: int, y1: int, y2: int): String
+ switchPlayers()
+ shufflePlayerHand()
- int findGap(x: int, y: int, x_vec: int, y_vec: int): int
+ getPlayerHand(player: Player): ArrayList<Tile>
+ setPlayerHand(hand: ArrayList<Tile>)
+ setStartP1()
+ getWinner(): int
+ getCurPlayer(): Player
+ getPlayerOneScore(): int
+ getPlayerTwoScore(): int
+ getCurPlayerHand(): ArrayList<Tile>
+ getCurPlayerScore(): int

ScrabbleController

- model: ScrabbleModel

+ ScrabbleController(model: ScrabbleModel)
+ playerTurn(placementInfo: HashMap<Point,Character>): boolean
+ getWinner(): int
+ getCurPlayerScore(): int
+ switchPlayers()
+ shufflePlayerHand()

DrawPile

- pool: ArrayList<Tile>

+ DrawPile()
+ getSize(): int
+ drawTile(): Tile
+ drawTiles(x: int): ArrayList<Tile>
+ addTiles(tiles: ArrayList<Tile>)

Player

- name: String
- hand: ArrayList<Tile>
- score: int

+ Player(name: String, hand: ArrayList<Tile>)
+ getHand(): ArrayList<Tile>
+ getTileByLetter(c: char): Tile
+ getSize(): int
+ getScore(): int
+ setScore(score: int)
+ replaceTileByLetter(c: char, newTile: Tile)
+ shuffleHand()
+ printHand()
+ newTile(tile: Tile)

ScrabbleGUI

- isFirstTurn: boolean
- BOARD_SIZE: int
- squares: JButton[][]
- rack: JButton[]
- selectedTile: JButton
- justPlacedTiles: HashMap<Point,Character>
- justPlacedPoints: Stack<Point>
- gameLog: JTextArea
- rackPanel: JPanel
- scorePanel: JPanel
- currentPlayerHand: ArrayList<Tile>
- currentPlayer: boolean

+ ScrabbleGUI()
- initializeBoard()
+ setDefaultSquareColor(row: int, col: int)
+ updateGameLog(message: String)
+ updateScores(player1Scores: int, player2Score: int)
- setSurroundingTiles(grid: JButton[][], b: JButton)
- checkWord(justPlacedTiles: HashMap<Point,Character>, justPlacedPoints: Stack<Point>, squares: JButton[][], tester boolean)
- resetSquare(squares: JButton[][], x: int, y: int)
- disableAdjacentSquares(squares: JButton[][], x: int, y:int)
- enableAdjacentSquares(squares: JButton[][], x: int, y: int)
- setHand()
+ main(args: String[])