The User is who is playing the game.

User

- key: String

- displayName: String

+ hashCode(): int

+ equals(Object obj): boolean
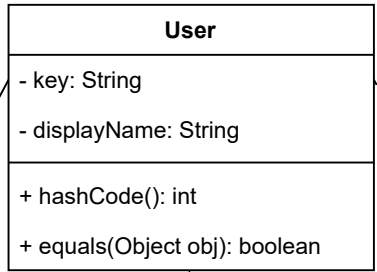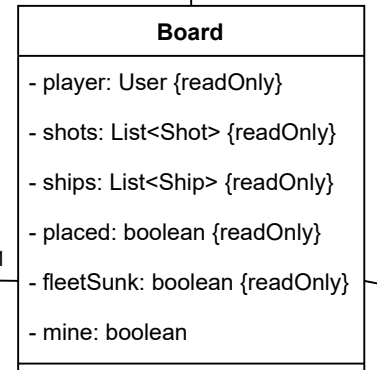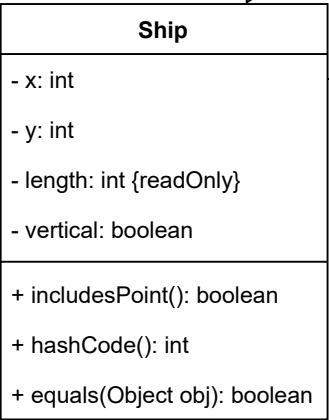
The User places Ships at the beginning of the game and then the other players fire at the ships. The game is over when all of a players ships are sunk
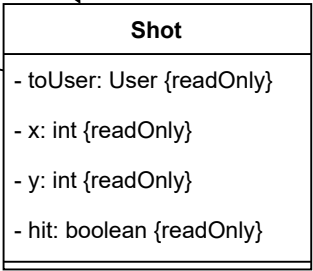
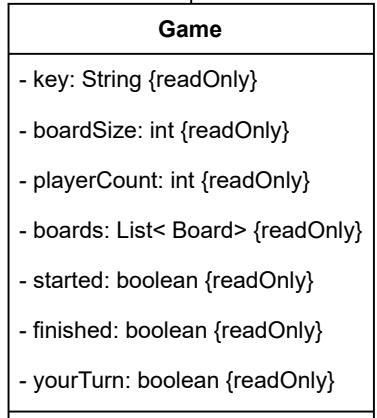The User creates the Shots, then the board stores them and the game processes them.

Use

Each User owns a single Board

Board

- player: User {readOnly}

- shots: List<Shot> {readOnly}

- ships: List<Ship> {readOnly}

- placed: boolean {readOnly}

- fleetSunk: boolean {readOnly}

- mine: boolean

Every Board has a list of Shots that it stores as the game progresses and players fire at each other more and more.

Ship

- x: int

- y: int

- length: int {readOnly}

- vertical: boolean

+ includesPoint(): boolean

+ hashCode(): int

+ equals(Object obj): boolean

Ships are placed and targeted. When all Ships are sunk, the game is lost.

*   1   1

Every Board has a list of Ships that it keeps track of to declare if a fleet is sunk.

*

Shot

- toUser: User {readOnly}

- x: int {readOnly}

- y: int {readOnly}

- hit: boolean {readOnly}

The User fires Shots at other users' ships

Every Game has a List of boards, one for every player. The Game updates the boards as the game progresses

Game

- key: String {readOnly}

- boardSize: int {readOnly}

- playerCount: int {readOnly}

- boards: List< Board> {readOnly}

- started: boolean {readOnly}

- finished: boolean {readOnly}

- yourTurn: boolean {readOnly}

The Game is what interprets the rules, updates boards, and processes shots.