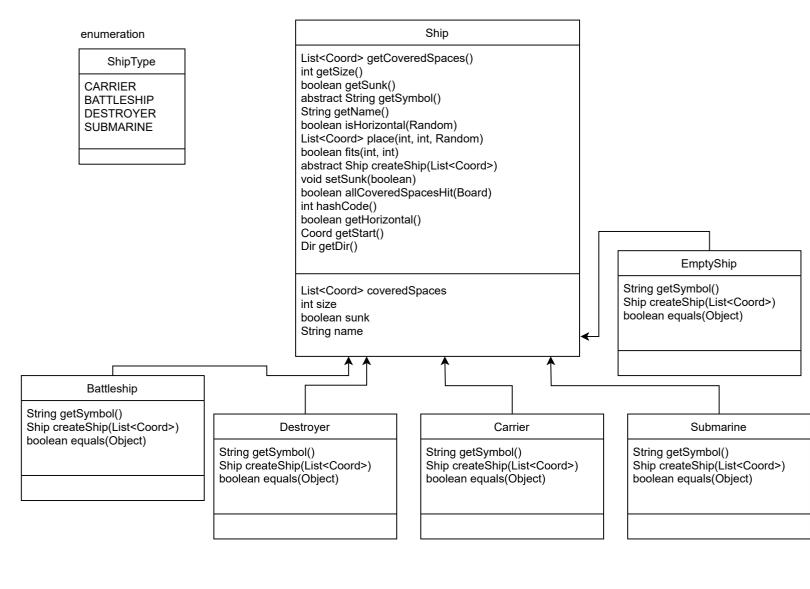
### abstract class



### Driver

void main(String[]) void runSingle() void runServer() boolean isValidArg(String)

## MessageJson ShipAdapter JsonCreator @JsonProperty ("method-name") String @JsonProperty ("start") Coord @JsonProperty("arguments") JsonNode @JsonProperty("length") int @JsonProperty("direction") Direction JoinJson CoordinatesJson @JsonProperty ("name") String @JsonProperty ("coordinates") List<Coord> @JsonProperty("game-mode") JsonNode SetUpRecieiveJson **EndGameReceiveJson** @JsonProperty ("height") int @JsonProperty ("result") String @JsonProperty("width") int @JsonProperty ("reason") String @JsonProperty("fleet-spec") Map<ShipType, Integer> public GameResult getResult() public int carrier() public int battleship() public int destroyer() public int submarine() **JsonUtils** SetUpSendJson @JsonProperty("fleet-spec") Map<ShipType, Integer> public static JsonNode serializeRecord(Record ) Dir enum **HORIZONTAL**

VERTICAL

# void run() void delegateMessage(MessageJson) void handleJoin(JsonNode) void handleSetup(JsonNode) void handleTakeShots(JsonNode) void handleReportDamage(JsonNode) void handleSuccessfulHits(JsonNode) void handleEndGame(JsonNode) void makeBoard(int, int) Board getBoard() void makeFleet(List<Ship>) Fleet getFleet() Shots getShots()

Socket server
ObjectMapper mapper
InputStream in
PrintStream out
Player aiPlayer
Board aiBoard
Shots aiShots
Fleet aiFleet

enum

## GameResult WIN("You win!...") LOSS("You lose...") DRAW("Draw...") String getReason() String reason

### Controller

String getNameInfo(Scanner)

int getSetupInfo(Scanner)

HashMap<ShipType, Integer> getValidFleet(Scanner, int)

boolean isValidFleet(int. int. int. int)

int getValidDimension(Scanner)

boolean isValidDimension(int)

ArrayList<Coord> getUserShotInfo(Scanner)

boolean validShots(List<Coord>, Shots, Board)

void play()

List<Coord> getAiShotInfo()

boolean isOver()

boolean validShot(int, int, int, int)

GameResult checkEnd()

Fleet getUserFleet()

Fleet getAiFleet()

Shots getUserShots()

Player user

Player ai

GameView view

Scanner scanner

Board userBoard

Board aiBoard

Shots userShots

Shots aiShots

Fleet userFleet

Fleet aiFleet

### Coord

int getX()

int getY() boolean equals(Object)

int hashCode()

@JsonProperty "x" int x1

@JsonProperty "y" int y1

### Fleet

List<Ship> getFleet() int determineNumShots(Shots, Board)

List<Ship> fleet

void setSpaces(Fleet)

void fillBoard()

int getHeight()

int getWidth()

Space[][] getBoard() boolean validPlacement(List<Coord>)

void updateBoard(Shots, Fleet)

List<Coord> setCoveredSpaces(Fleet)

List<Coord> getCoveredSpaces()

Space[][] board

int height

int width

List<Coord> coveredSpaces

### GameView

Board ArrayList<Ship> setBoard(Map<ShipType, Integer>)

ArrayList<Ship> setShips(Ship, int, Random)

void showPrompt(String)

void showBoard(Board)

void showOpponentBoard(Board)

void showDamageReport(List<Coord>, String)

void reportSuccessfulHits(List<Coord)

void showWelcome(String)

### **Shots**

List<Coord> getShotsFired()

List<Coord> getShotsReceived()

List<Coord> getNextRound()

List<Coord> getShotsHitOpponent()

List<Coord> takeShots(Shots, Fleet)

List<Coord> reportDamage(List<Coord>, Board)

List<Coord> aiPlayerTakeShots(Board, Fleet, int, int, Shots)

List<Coord> shotsFired

List<Coord> shotsReceived

List<Coord> nextRound

List<Coord> shotsHitOpponent

### Space

boolean getOccupied()

boolean getHit()

boolean getMissed()

boolean setOccupied(boolean)

boolean setHit(boolean)

boolean setMissed(boolean)

Ship getOccupyingShip()

void setOccupyingShip(Ship)

boolean occupied

boolean hit

boolean missed

Ship occupyingShip

