```
                        ┌──────────────────┐
                        │  <<Interface>>   │
                        │    Runnable      │
                        └──────────────────┘
                                 △
                                 │
```

ClientHandler

-socket: Socket
-lobby: GameLobbyManager
-out: PrintWriter
-in: BufferedReader
-playerId: String
-playerName: String
-running: volatile boolean

+ClientHandler (socket: Socket, lobby: GameLobbyManager): void

+run(): void
-setupStreams(): void
-handleClientMessages(): void
-handleConnect (name: String): void
-handleGetGames(): void
-handleCreateGame (data: String): void
-handleJoinGame (gameId: String): void
-handeLeaveGame (gameId: String): void
-handleGuess (data: String): void
-handleChat (data: String): void
-handleHello (version: String): void
-cleanup(): void
+sendMessage(message: String): void
+getPlayerId(): String
+getPlayerName(): String

GameSession

-gameId: Stirng
-gameName: String
-requiredPlayers: int
-lobby: GameLobbyManager
-lock: Reentrantlock
-players: LinkedHashMap<String, ClientHandler>
-guessCount: HashMap<String, Integer>
-turnOrder: ArrayList<String>
-playerNames: HashMap<String, String>
-gameState: GameState
-secretCode: String
-currenTurnIndex: int
-lobby: GameLobbyManager
-totalGuessesMade: int
-status: String
-started: boolean

+GameSession (gameId: String, gameName: String, requiredPlayers: int, lobby: GameLobbyManager): void

+addPlayer(playerId: String, handler: ClientHandler): void
+removePlayer(playerId: String): void
+canStart(): boolean
+startGame (): void
+processGuess(playerId: String, guess: String): void
-advanceTurn (): void
-isValidGuess (guess: String): boolean
+broadcast (message: String, exludePlayerId: String): void
+getGameId(): String
+getGameName(): String
+getMaxPlayers(): int
+getPlayerCount(): int
+getStatus(): String
+getPlayerNames(): List<String>
+getPlayerIds(): Set<String>

GameLobbyManager

-players: ConcurrentHashMap<String, ClientHandler>
-sessions: ConcurrentHashMap<String, GameSession>
-playerToGame: ConcurrentHashMap<String, String>

+addPlayer (playerId: String, playerName: String, handler: ClientHandler): void
+removePlayer(playerId: String): void
+createGame(gameName: String, requiredPlayers: int, creatorId: String): String
+joinGame(gameId: String, playerId: String): boolean
+getSession (gameId: String): GameSession
+removeSession (gameId: String): void
+getGameListJson(): String
+broadcastToLobby(message: String): String
+getPlayer(playerId: String): ClientHandler