## GameController

**Fields:**
- phase: Phase
- actionNeededLock: Object
- connectedPlayers: int
- server: Server
- activeUser: String
- round: int
- subPhase: GameControllerState
- initialized: boolean
- gameModel: GamePlatform
- savePath: String
- users: Map<String, User>
- id: String
- ended: boolean
- isFullLock: Object
- expectedPlayers: int

**Methods:**
- + getSavePath(): String
- + playAssistantCard(String, int): void
- - actionPhase(): void
- - getExpectedPlayers(): int
- + getUsers(): List<User>
- + run(): void
- - checkForWinners(): List<Player>
- + checkProfessor(String, String): void
- + addUser(String, User): void
- + removeUser(User): void
- + getActiveUser(): String
- + endGame(): void
- + notifyUsers(JsonObject): void
- + isFull(): boolean
- + getGameModel(): GamePlatform
- + getUser(String): User
- + checkStartCondition(): void
- + paySpecialCharacter(JsonObject): void
- + getUsernames(): List<String>
- + saveGame(): void
- + moveMotherNature(int, boolean): void
- - moveStudentTo(JsonObject): void
- + getPhase(): Phase
- + returnStudents(HouseColor): void
- + getRound(): int
- + moveStudent(JsonObject): void
- + motherNatureAction(Island): void
- + getGameId(): String
- - setSubPhase(GameControllerState): void
- - isEnded(): boolean
- - planningPhase(): void
- + getSubPhase(): GameControllerState
- - writeFile(JsonObject): void
- + setIgnoredColor(HouseColor): void
- - moveStudentFrom(JsonObject): void
- + setBan(int): void
- + chooseCloud(JsonObject): void

## User

**Fields:**
- - username: String
- - connected: boolean
- - logged: boolean
- - outputStream: PrintWriter
- - connectedLock: Object
- - server: Server
- - ping: Ping
- - gameController: GameController
- - inputStream: BufferedReader

**Methods:**
- + sendMessage(JsonObject): void
- - manageLogin(JsonObject): void
- + run(): void
- + getGameController(): GameController
- - manageCommand(JsonObject): void
- - manageEnterGame(JsonObject): void
- - isLogged(): boolean
- - removeFromGame(): void
- - getCommand(): JsonObject
- + getUsername(): String
- + disconnected(): void
- - manageGameCommand(JsonObject): void
- - setLogged(boolean): void

## Matchmaking

- ~ gameCreation(JsonObject, Server): String
- ~ enterGame(String, Server): GameController
- ~ login(GameController, String, User): boolean

## Ping

**Fields:**
- - lock: Object
- - user: User
- - stop: boolean
- - inWaitingRoom: boolean

**Methods:**
- + run(): void
- + setInWaitingRoom(boolean): void
- + stopPing(): void
- + isInWaitingRoom(): boolean

Relationships:
- GameController 1 — * users User
- GameController 1 — 1 gameController User
- User 1 ping — 1 ping Ping
- User «create» — 1 user Ping