

Milestone 5 – Team 26

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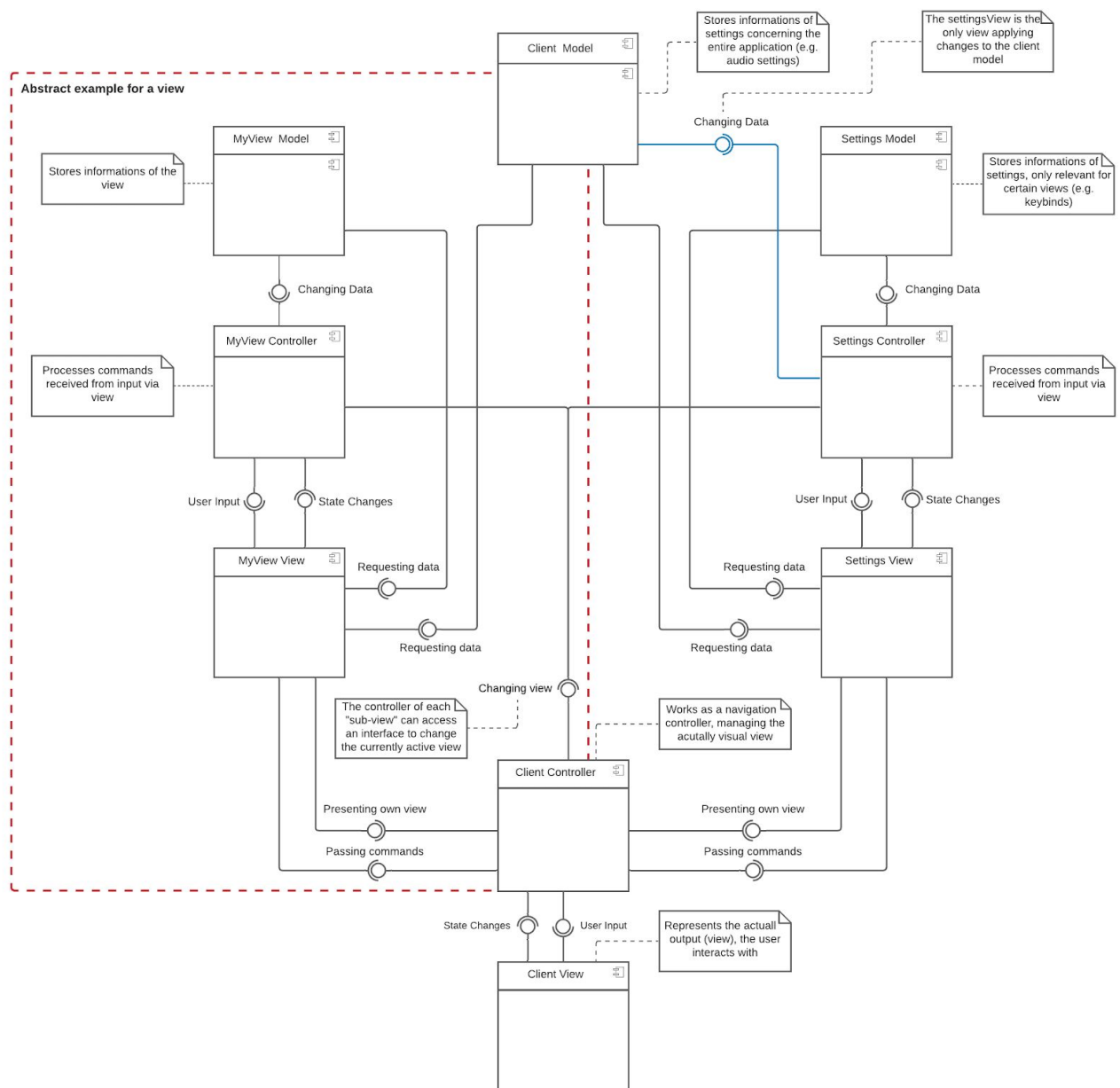
2. Architectural components

In this section we specify the architectural composition of the software to be developed. Component diagrams are used to outline the interaction of the individual components in the program and their tasks.

2.1 Client

This shows the overall structure of the client, showing the abstract idea underneath the different views and its system to store and process data. Particularly highlighted is the Settings View, which takes on the special role of editing the client model.

2.1.1 Component diagram



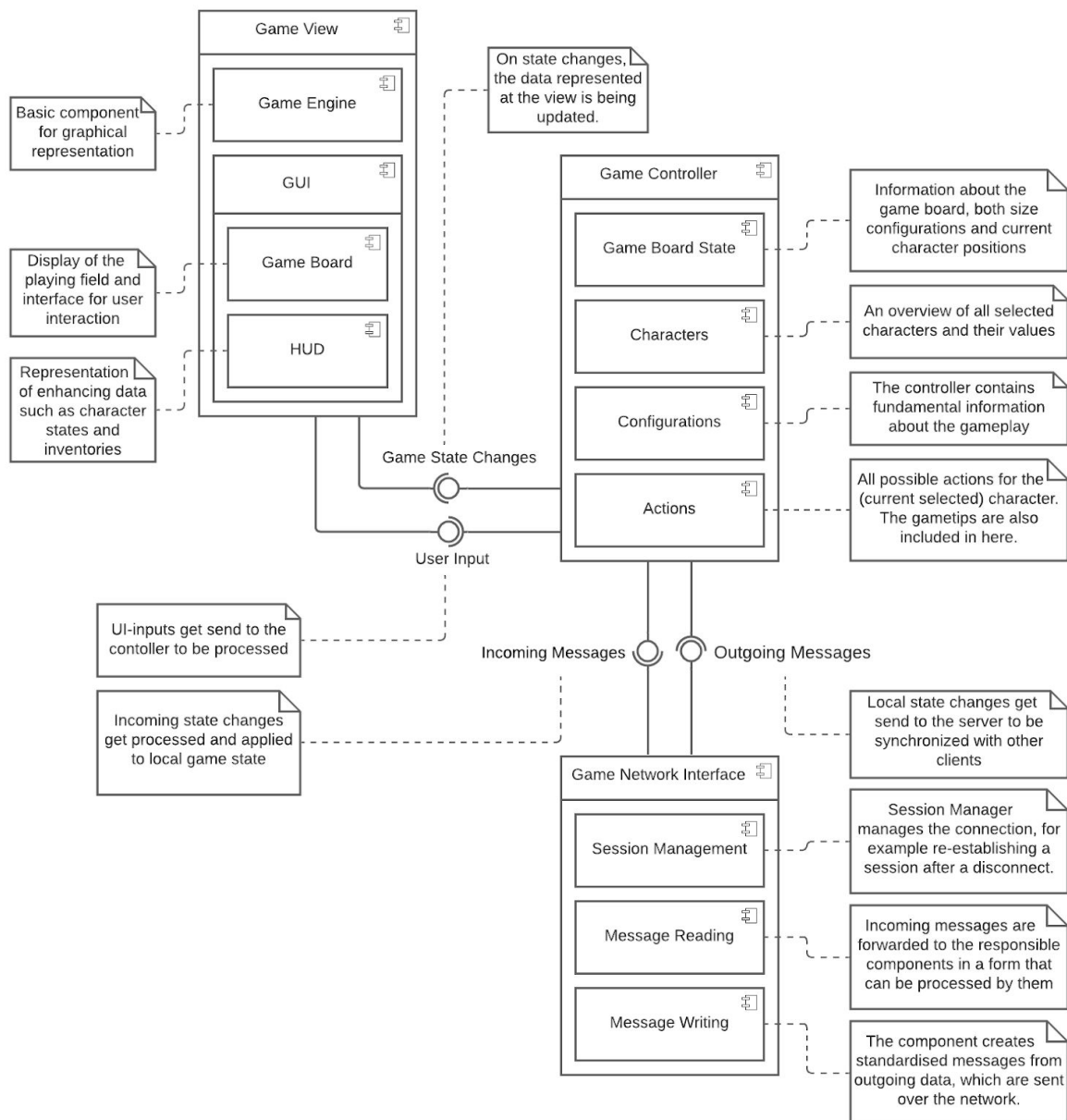
2.1.2 Requirement Assignment

ID	Title		Component
FR 021	Graphical user interface	→	Client View
FR 022	Stan Lee Easter Egg	→	MyView View
FR 027	Settings Hotkeys	→	Settings Model
FR 029	End Screen	→	MyView View
FR 030	Match Statistics	→	MyView View/Model
FR 031	Replay	→	MyView View/Model
FR 034	Change audio settings	→	Settings View/Controller
FR 035	Change username	→	Settings View/Controller

2.1.3 Game components

Due to its high complexity and relevance for the client, the game view, its controller, and the interface for network communication are specified in the following graphic.

2.1.3.1 Component diagram



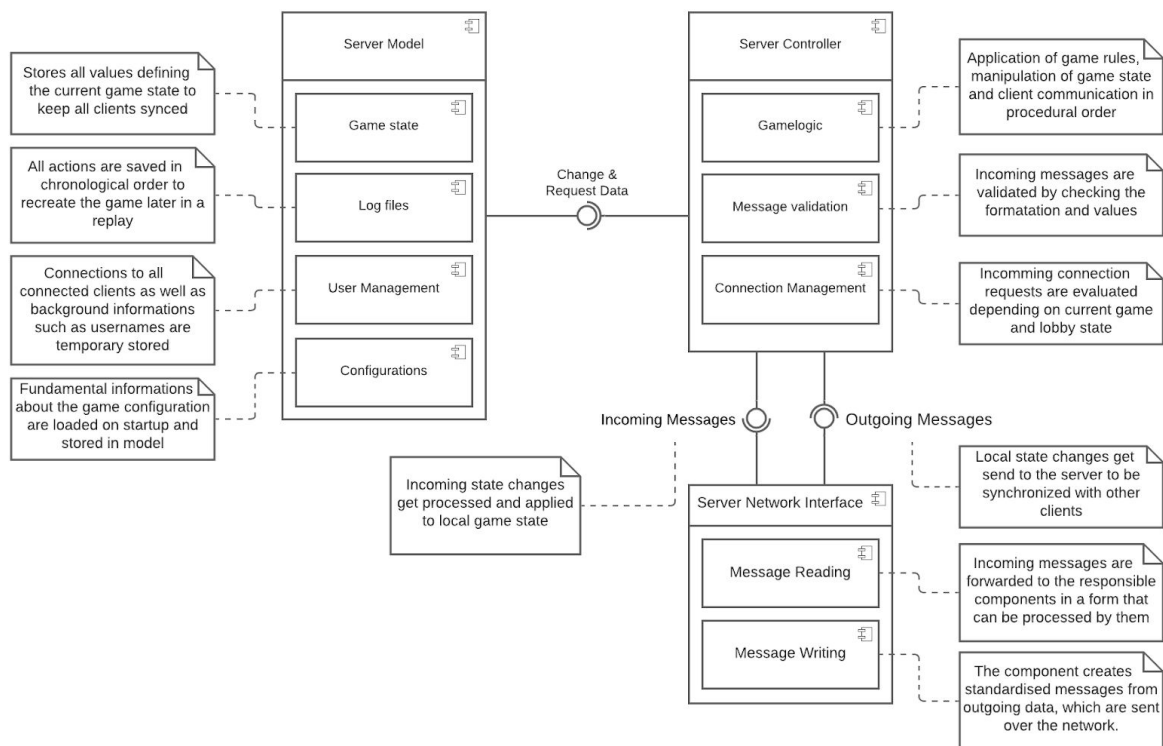
2.1.3.2 Requirement Assignment

ID	Title		Component
FR 020	Data delivery	→	Game Network Interface > Message Reading
FR 021	Graphical user interface	→	Game View
FR 023	Gameplay information	→	Game View > GUI > HUD
FR 024	Attack visualization	→	Game View > GUI > Game Board
FR 025	Possible actions	→	Game View > GUI > Game Board
FR 026	Game tips	→	Game Controller > Actions
FR 028	Action animation	→	Game View > GUI > Game Board
FR 032	Requesting Pause	→	Game Controller
FR 033	Reconnection attempt	→	Game Network Interface > Session Management

2.2 Server

The Server connects the actively playing and passively observing clients by hosting the game, storing the states, validating selected actions, and passing the modified state to all its clients. The components required to provide full functionality are specified here.

2.2.1 Component diagram



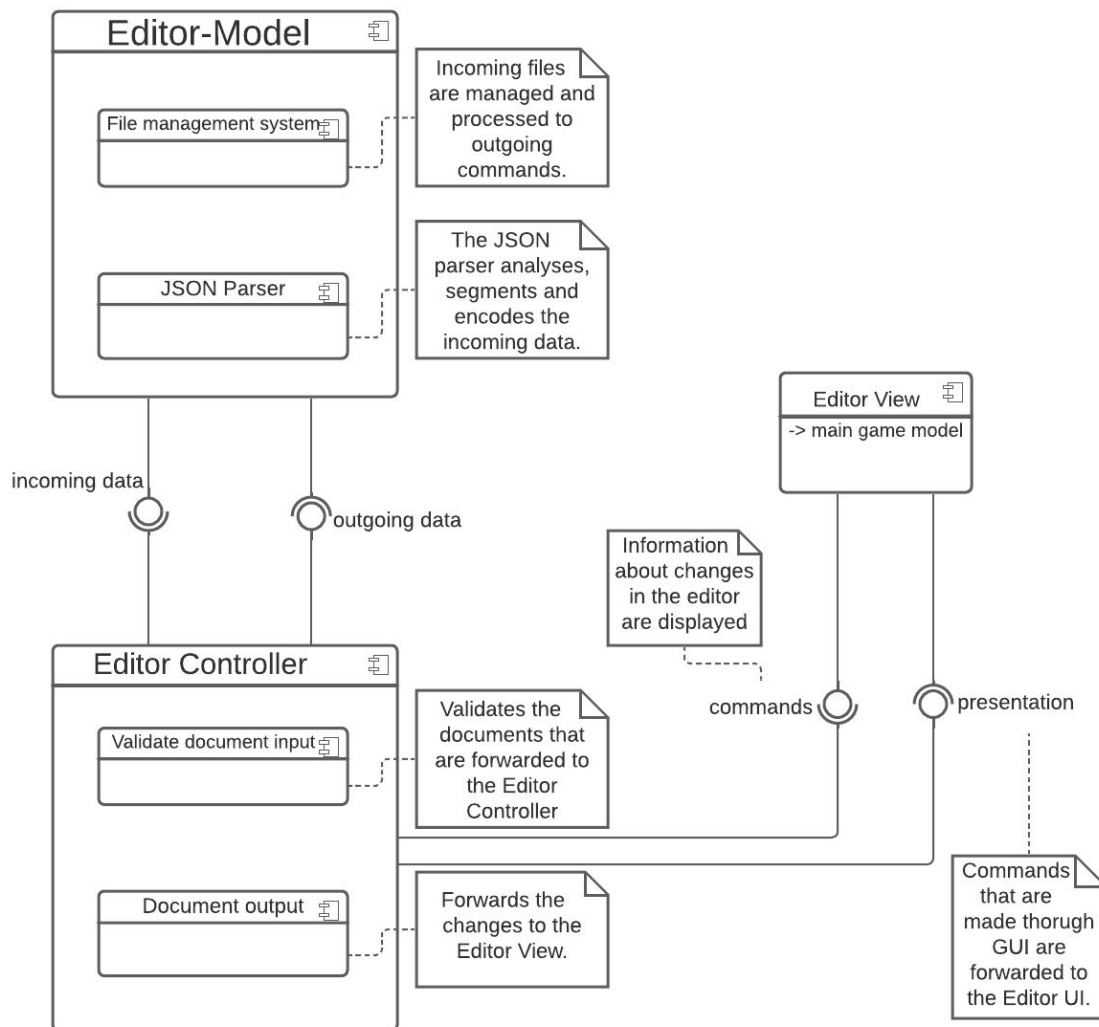
2.2.2 Requirement Assignment

ID	Title	Component
FR 001	Supported operating system	→ Server in general
FR 002	Match configuration	→ Server Model > Configurations
FR 003	Scenario configuration	→ Server Model > Configurations
FR 004	Character configuration	→ Server Model > Configurations
FR 005	Player connection	→ Server Model > User Management
FR 006	Spectator connection	→ Server Model > User Management
FR 007	Web Socket	→ Server Controller > Connection Management

ID	Title		Component
FR 008	Log file	→	Server Model > Log file
FR 009	Information Publishing	→	Server Controller > Connection Management
FR 010	Timeout	→	Server Controller > Connection Management
FR 011	Delayed Messages	→	Server Controller > Connection Management
FR 012	Reconnect	→	Server Controller > Connection Management
FR 013	Protocol violation	→	Server Controller > Message validation
FR 014	Match start	→	Server Controller > Gamelogic
FR 015	Squad assembly	→	Server Controller > Gamelogic
FR 016	Goose Round	→	Server Controller > Gamelogic
FR 017	Win condition	→	Server Controller > Gamelogic
FR 018	Overtime Mechanism	→	Server Controller > Gamelogic
FR 019	Rule compliant game sequence	→	Server Controller > Gamelogic

2.3 Editor

2.3.1 Components diagram

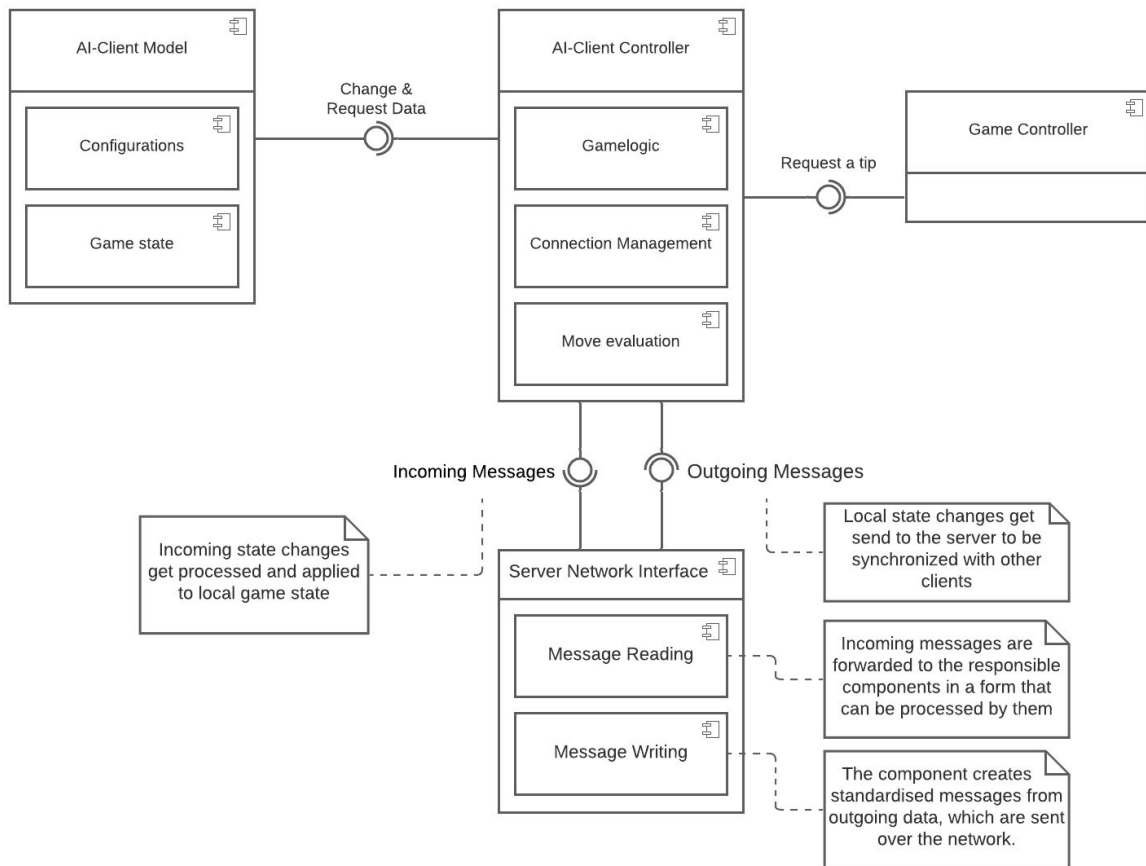


2.3.2 Requirement Assignment

ID	Title	Component
FR 041	JSON format	→ Editor Model > JSON Parser
FR 042	Graphical user interface	→ Editor View
FR 043	Random scenario	→ Editor Controller
FR 044	Validation	→ Editor Controller > Validate document input

2.4 AI-Client

2.4.1 Components diagram



2.4.2 Requirement Assignment

ID	Title	Component
FR 036	Supported operating system	→ AI-Client in general
FR 037	Connection type	→ AI-Client Controller > Connection Management
FR 038	Rule compliant AI	→ AI-Client Controller > Gamelogic
FR 039	AI difficulty	→ AI-Client Model > Configurations
FR 040	AI-Client interface	→ AI-Client Controller