

Diagrams

Component Diagram

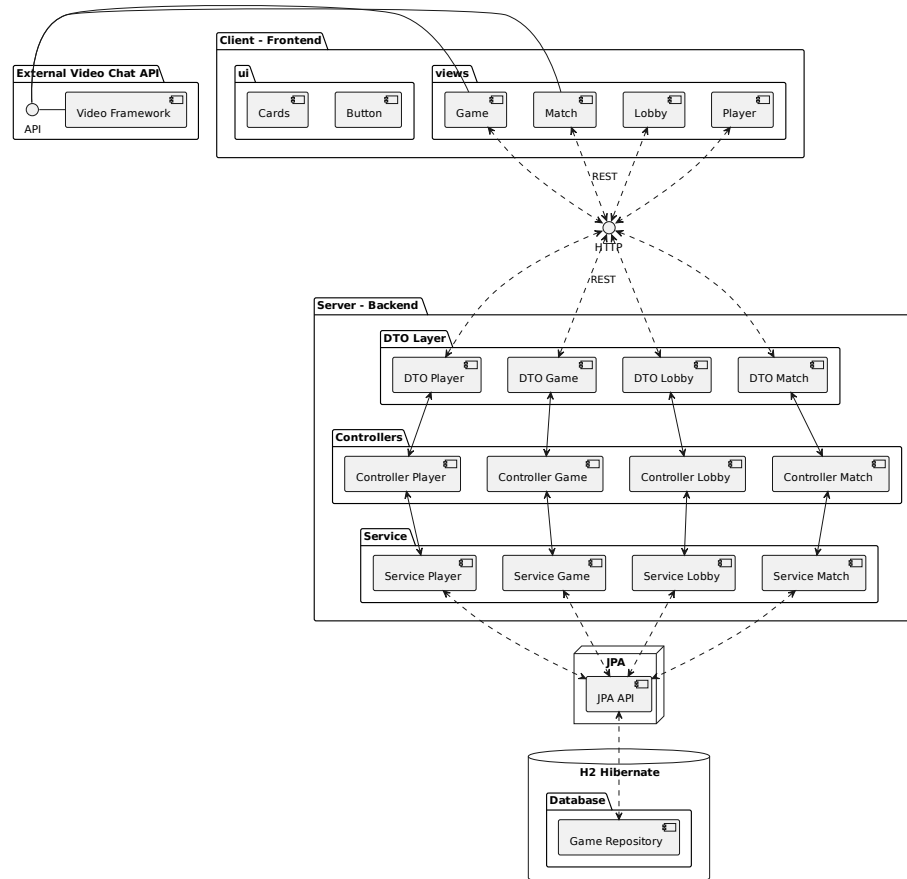


Figure 1: Component diagram

Class Diagram

Activity Diagram

UI Mockups

Rest Specification

Description of the notation

We specify the Endpoints as follows:

Endpoint /endpoints

Model

Modelname - PropType1 propName1 - PropType2 propName2

Method	Description
POST	Post Request to /endpoints
GET	Get Request to /endpoints (GET collection)
GET /{id}	Get Request to /endpoints/{id} (GET item)
PATCH /{id}	PATCH Request to /endpoints/{id}
DELETE /{id}	DELETE Request to /endpoints/{id}

We don't use the PUT Request, because all functionality of a PUT Request can be done with a PATCH request, and the PATCH request is easier.

All Endpoints support at least:

Accept: application/hal+json Content-Type: application/hal+json (POST, PATCH)

The Parameter Types are as follows:

{id}: Patch Parameter Model: Body Parameter (as application/hal+json) ?sort= and ?propName1= filters : Query Parameter

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Endpoints

Endpoint /players

Model

Player - int id - String name

Method	Response Codes	Description
POST	201 400 422 (Player for this session already exists)	Creates a Session and a Player for this Session
GET	200	
GET	200 403 (Not Allowed to see player)	
/{id}		
PATCH	200 400 422 403 (Not Allowed to patch other player)	Set Player name
/{id}		

Endpoint /games

Model

Game - int id - String name - Enum state - Collection players - Collection matches - ScoreBoard scoreBoard

ScoreBoard - Collection matchScores - Map<Player, int> total

MatchScore - Map<Player, int> announcedScore - Map<Player, int> wonTricks - Map<Player, int> points

Method	Response Codes	Description
POST	201 422 (Cannot create a room when already in a room) 400	Creates a new game room
GET	200	
GET	200 403 (Not Allowed to see room)	
/{id}		

Method	Response Codes	Description
PATCH /{id}	200 400 422 403 (Not Allowed to patch room you are not in)	Update game name
DELETE /{id}	204 400 422 403 (Not Allowed to delete room you are not in, not allowed to delete game with players)	Delete the game

Side Effects: If state is patched to playing, then a new Match is created and a hand for each player is created.

Endpoint /matches

Model

Match - int id - int matchNumber - int numberOfPlayedCards (calculated property) - Collection scoreAnnouncements - Collection rounds - Collection hands

Method	Response Codes	Description
GET /{id}	200 403 (Not Allowed to see match)	

Endpoint /scoreAnnouncements

Model

ScoreAnnouncement - int id - int announcedScore - Player player - Match match

Method	Response Codes	Description
POST	200 403 (Not your turn, player not in match) 422 invalid score	Announce Score for Match

Side Effects: if all ScoreAnnouncement are made, a new Round is created.

Endpoint /hands

Not sure if needed

Model

Round - int id - Match match - Player player - Collection cards

Card - int id - Suit? suit (may be null if the card is hidden) - Rank? rank (may be null if the card is hidden)

Method	Response Codes	Description
GET	200	
GET /{id}	200 403 (Not Allowed to see hand)	

Endpoint /rounds

Model

Round - int id - int roundNumber - Player winner - Collection turns

Method	Response Codes	Description
GET	200	
GET /{id}	200 403 (Not Allowed to see round)	

Endpoint /turns

Model

Turn - int id - Round round - Card card

Method	Response Codes	Description
POST	200 403 (Not your turn, player not in match) 422	Announce Score for Match
	invalid card	

If the last turn of a round is made, then the round is ended. If it was the last round of the last match, the game is finished.