

## Diagrams

### Component Diagram



Figure 1: Component diagram

### Class Diagram

### Activity Diagram

### UI Mockups

### REST Interfaces

### Endpoints

### /games endpoint

| Mapping         | Method | Parameter               | Parameter Type | Status Code | Response | Description                        |
|-----------------|--------|-------------------------|----------------|-------------|----------|------------------------------------|
| /games          | POST   | playerIDs: String[]     | Body           | ...         | ...      | initiate a new game                |
| /games/{gameID} | GET    | -                       | Query          | ...         | ...      | retrieve all information of a game |
| /games/{gameID} | PUT    | matchesPlayed: int, ... | Body           | ...         | ...      | change state of a running game     |

#### /matches endpoint

| Mapping            | Method | Parameter              | Parameter Type | Status Code | Response                              | Description                         |
|--------------------|--------|------------------------|----------------|-------------|---------------------------------------|-------------------------------------|
| /matches           | POST   | gameID: String         | Body           | ...         | matchID: String, num-berOfRounds: int | initiate a new match                |
| /matches/{matchID} | GET    | -                      | Query          | ...         |                                       | retrieve all information of a match |
| /matches/{matchID} | PUT    | roundsPlayed: int, ... | Body           | ...         | ...                                   | change state of a running match     |

#### /cards endpoint

| Mapping           | Method | Parameter                           | Parameter Type | Status Code | Response                  | Description                                 |
|-------------------|--------|-------------------------------------|----------------|-------------|---------------------------|---|
| /cards/distribute | GET    | gameID: String, num-berOfCards: int | Body           | ...         | list of playerIDs + cards | get (distribute) cards to players in a game |

| Mapping               | Method   | Parameter        | Parameter Type | Status Code | Response | Description                            |
|-----------------------|----------|------------------|----------------|-------------|----------|--|
| /cards/draw           | GET      | playerID: String | Body           | ...         | card     | get (draw) one card to one player      |
| /cards/{gameID}       | GET      | gameID: String   | Query          | ...         | ...      | get a players current cards collection |
| /cards/{collectionID} | DELETE   | cards: Card      | Body           | ...         | ...      | remove a card of cards collection      |
| /cards/{collectionID} | PUT/POST | cards: Card      | Body           | ...         | ...      | add a card to cards collection         |

### /players endpoint

| Mapping             | Method | Parameter          | Parameter Type | Status Code | Response  | Description                          |
|---------------------|--------|--------------------|----------------|-------------|---|--------------------------------------|
| /players            | POST   | playerName: String | Body           | 201409      | Playerduplicate playerName                      | create a new player                  |
| /players/{gameID}   | GET    | gameID: String     | Query          | 200404      | list of playersno such game or no players found | retrieve a list of players in a game |
| /players/{playerID} | GET    | userID: long       | Query          | 200404      | playerplayer not found                          | retrieve a player by ID              |
| /players/{playerID} | PUT    | currentScore: int  | Body           | 204404      | player not found                                | change players score during game     |

### /users endpoint

| Mapping             | Method | Parameter                             | Parameter Type | Status Code | Response               | Description                       |
|---------------------|--------|---------------------------------------|----------------|-------------|------------------------|-----------------------------------|
| /users              | POST   | userName: String,<br>password: String | Body           | ...         | ...                    | register a new user               |
| /players/{playerID} | GET    | userID: long                          | Query          | 200404      | playerplayer not found | retrieve a player by ID           |
| /users/{userID}     | GET    | userID: String                        | Query          | 200404      | useruser not found     | retrieve a user by ID             |
| /users/{username}   | GET    | userName: String                      | Query          | 200404      | useruser not found     | retrieve a user by their username |
| /users/{userID}     | PUT    | newGameScore: int                     |                |             |                        |                                   |

### other endpoints

| Mapping  | Method | Parameter                             | Parameter Type | Status Code | Response           | Description                           |
|----------|--------|---------------------------------------|----------------|-------------|--------------------|---------------------------------------|
| /login/  | POST   | userName: String,<br>password: String | Body           | ...         | useruser not found | login with username and password      |
| /logout/ | POST   | ?                                     | Body           | ?           | ?                  | terminate user session by logging out |

### Detailed Interface Specification

#### Game

| Interface Name | Fieldname | Type            | Description                                   |
|----------------|-----------|-----------------|---|
| GameGetDTO     | gameID    | String          | Unique identifier of the game                 |
|                | players   | PlayersGetDTO[] | List of players that participate in that game |

### Match

| Interface Name | Fieldname           | Type   | Description  |
|----------------|---------------------|--------|--|
| MatchPostDTO   | gameID              | String | IDs of the game this match belongs                     |
| MatchGetDTO    | matchID             | String | Unique identifier of the match                         |
|                | noOfRounds          | int    | Number of rounds (i.e. cards per player) in this match |
|                | noOfTricksPerPlayer | int    | Number of tricks per player in this match              |
| MatchGetDTO    | gameID              | String | ID of the game this match belongs                      |

### Cards

| Interface Name | Fieldname         | Type    | Description                               |
|----------------|-------------------|---------|---|
| CardsGetDTO    | cardsCollectionID | String  | Unique identifier of the cards collection |
|                | cards             | Cards[] | List of cards                             |
|                | playerID          | String  | String of cards holding player            |
| CardsPostDTO   | card              | Card    | one card                                  |

### Player

| Interface Name | Fieldname   | Type   | Description                         |
|----------------|-------------|--------|-------------------------------------|
| PlayerPostDTO  | playersName | String | Name of the player (must be unique) |
| PlayerGetDTO   | playerID    | String | Players unique identifier           |
|                | playerid    | String | Unique identifier of player         |
|                | playersName | String | Name of the player                  |
|                | score       | int    | Players score in a running game     |

| Interface Name | Fieldname | Type   | Description  |
|----------------|-----------|--------|--|
|                | gameID    | String | Unique identifier of game, a player is (or was?) participating |

**User**

**Login**

**Logout**