Cards Against Humanity

# Group

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# Project description

Project will try to recreate gameplay of popular game Cards Against Humanity. It will be a multiplayer game dedicated to be played on a LAN network over Wi-Fi of laptop hotspot. Implementation will be performed in form of a web application using React.js for frontend and Spring Boot application as a backend. Targeted will be mobile devices.

# Additional libraries

## Frontend

* MDB Bootstrap
  + <https://mdbootstrap.com/>

## Backend

* Spring Web
* WebSocket
* Spring Data Reactive MongoDB
* Embedded MongoDB Database

# Functionalities

* Account registration
  + Form allowing for user to create an account using login and password.
  + Every account will have their amount of won games recorded in the database.
* Logging in
  + Anonymously by providing just a user name (user not saved to the database).
  + Using created account by providing login and password.
* Cards
  + Cards will be stored in a MongoDB database.
  + Base class of the card will contain following fields:
    - id (UUID)
    - text (String)
  + Cards split between to types: black and white, both types will be stored in separate collections. Class of the black cards will extend will extend the base card class as it requires additional field:
    - blanks (int)
  + During the game, web socket will only operate using ids of the cards. Frontend will have to pull the rest of the information using the regular http requests.
* Creating the game
  + Application will allow registered user to create a game and allow them to select time limit to make selection and required amount of won rounds to be declared a winner.
  + Game will be identified by a code which will be used by other players to join the game. To allow faster way of sharing the code application will offer a QR code to be displayed on the phone of the player which then can be scanned by other players to join.
* Joining the game
  + Any type of player, that has been already authenticated will be able to join the game by providing a code on the website using form or by scanning QR code.
* Gameplay
  + Game is built on the base of two types of cards, black (questions / statements with blanks to fill) and white (answers / words). In the beginning of each round, every player should have 11 white cards, unless there are no more cards left. They pick their white card(s) (amount specific for each black card) and confirm their selection. Every round new player is selected to be a cezar, a person that will be picking the best answer (provided by other players) to a question that has been drawn. Game ends when the limit of won rounds is reached.
  + On the start of each round, cezar’s name will be announced together with a black card that has been drawn.