Project Specification

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1 PURPOSE OF THE APPLICATION

Based on a well known browser game named iSketch (http://www.isketch.net/) and the traditional family game Pictionary, our application will have a multi-player platform where one of the players draws an object that belongs to a certain category assigned by the computer and the other players in the same game room must find what is being drawn on the screen. The main goal of this app is to have multiple clients connected to a game room with a maximum of 10 players in which they will take turns drawing and guessing what is being drawn. There are many drawing categories available which might be chosen by the players or randomly by the computer. All the players have access to the chosen category. As a player starts drawing, the others can visualize the process in real time and guess what is being drawn by picking one of the options (words on the side that are possible answers). The player that gets it right wins the round. After a round ends, the player that was drawing changes, so that everyone gets a chance to draw. The game ends after every player has drawn twice. The app has a built in authentication system with the possibility of having a friends list and a chat feature. Every time a user logs in, every player that has that user as a friend will receive a notification. The chat will only be used by players that are on each other's friends list.. To manage all communications, the application will be based on the REST paradigm (figura 1.1). When a user is drawing (a client), its phone is constantly sending its state to the server which will send this state to all the other clients in the game room (the other players). Likewise, the chat communication has the same principle: when a client sends a message, its information is sent to the server and the server forwards it to the other client in the conversation. The authentication will be managed similarly.
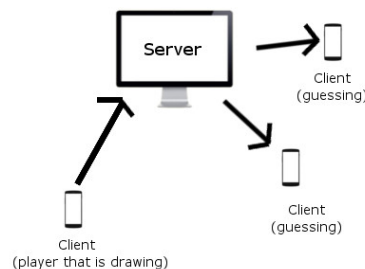

Figura 1.1: Draft of the program's main implementation scheme.

2 Main Features

- Registration and authentication
  - Through the app's service
  - Through Facebook

- Choose the category
  - Randomly
  - Chosen by the player that is drawing

- Draw something within the category

- Guess what is represented in the drawing

- Chat

- Share drawings through Facebook

- Add user to friends list

- Remove user from friends list

3 Web Services

- 3rd party web services
  - Facebook API (link)
    * Facebook ID
    * Facebook login, download friends list, share
    * Require authentication

- Provided services
  - Game
    * Game room name
    * Create and join game rooms, get and update the current state of the game
    * Require internal authentication

- Friends
  - Username
  - Add and remove friends, join a friend's game room
  - Require authentication

- Links between services
  - Friends will be allowed to associate a Facebook's ID with a friend's username
  - A player will be able to join a game in which a friend is currently playing

4 Target Platforms

Java application for Mobile Device (Android, Windows Mobile) and Computer Server

The application targets players using an Android phone to make the game portable, more flexible and interesting. An application using a phone is more intuitive and easier to use which pokes the interest of users from a wide age range. Furthermore, it is harder to draw in the computer. The server will be managed by a computer.