RW741: Assignment 1

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17 August 2014

1   Introduction

LeaderBoard is a social game-ranking application that allows users to see where they rank in any game against any of their friends. It is not a platform for playing games but merely a recorder for games played between friends so that the statement "I am better than you" can actually be quantified. This application is meant to be used for virtual games that do not have an all-time ranking system as well as real-life, unrecorded games/competitions that people frequently challenge each other in. Users can also see who their friends are challenging, what games they are playing, and who the eventual winner is.

Users are also ranked among each other by the amount of rivals they have beaten. A user has beaten a rival if he/she has beaten the rival in more games than he/she lost against the rival. A user has beaten a rival in a game if he/she has won more games in a particular game than he/she has lost against a rival.

2   User Details

Due to the social-networking aspect of the app, users will need to be uniquely and sufficiently identified. Users will be uniquely identified by their mobile phone number. This makes it easy to add rivals and, in South Africa at least, provides an added security factor due to the RICA act [1]. Additionally, users will add their real name and surname, as real as they prefer, as well as a nickname which are all used and displayed by the app.

3   Rivals

LeaderBoard uses the word "rival" to describe another user that you are competing with on the app. Rivals will appear on the rivals tab whom which you can request a challenge. Once a a challenge has been accepted, a score is then submitted by the user that accepted the challenge once the game has completed. The score can then either be confirmed or denied by the user that requested the challenge (see below).
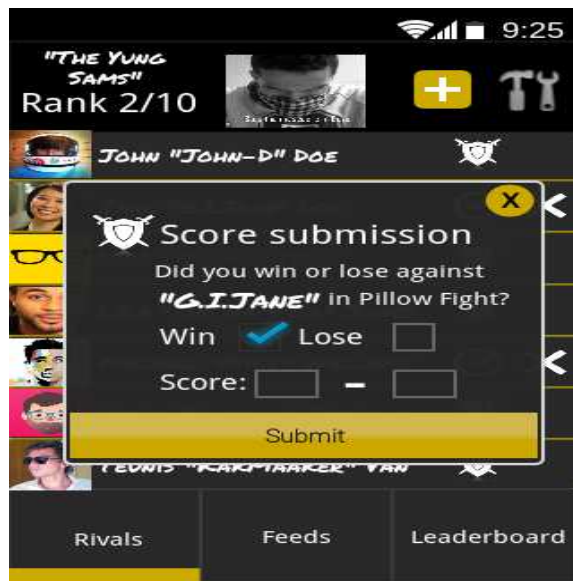
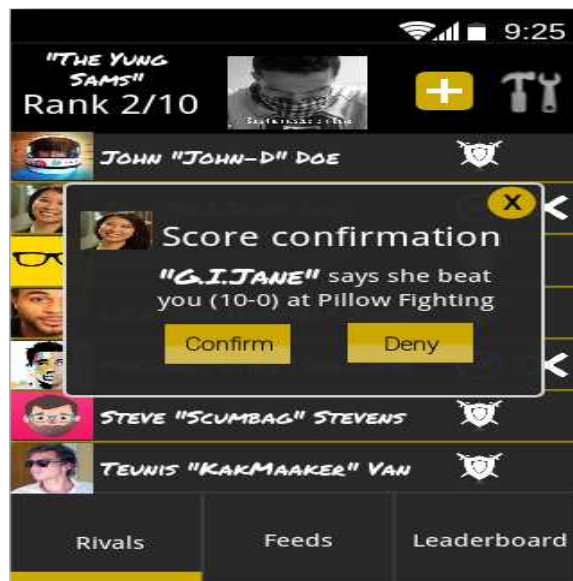Figure 1: User is trying to submit a score for a current game

Figure 2: User can confirm or deny a score submitted by a rival

Once a user denies a score that they think is incorrect, or their rival denies a score that they correctly submitted, they can choose to flag the particular rival and/or delete the rival. Flagging a rival will result in all rivals of the user knowing that this user has been flagged. However, due to the nature of the app it would probably be used mostly for offline, face-to-face games where there are real-life interactions between rivals. This makes it harder to cheat as your rivals are most likely your real-life friends and thus a certain level of honesty is expected.

4   Feeds

Most social networking applications include a feed. This adds to the social experience by telling you what others you are connected to are doing. The feeds in LeaderBoard will include the following events:
For the following list let the word "rival" mean the user or any of his/her rivals.

- A rival challenges another rival (or unknown user) to a particular game.*

- A rival beats another rival (or unknown user) at a particular game.

- A rival is better than another rival (or unknown user) at a particualr game.

- A rival has been flagged by another rival (or unknown user).

- A rival has moved up in the leader board.

- A rival is the new leader of the user's leader board.

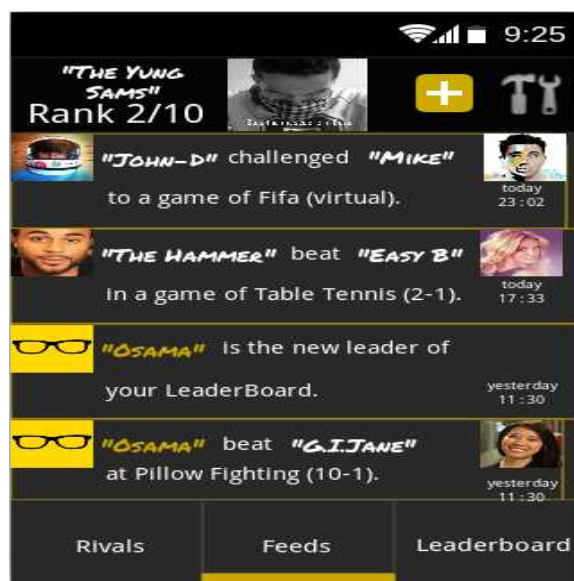* This is when a rival challenges another and the challenge is consequently accepted.

Figure 3: Feeds

5   Leader board

There are several leader boards. The main leader board is ranked according to the number of rivals beaten, with ties broken on most wins; then on least losses; then on score for; then on alphabetical order.
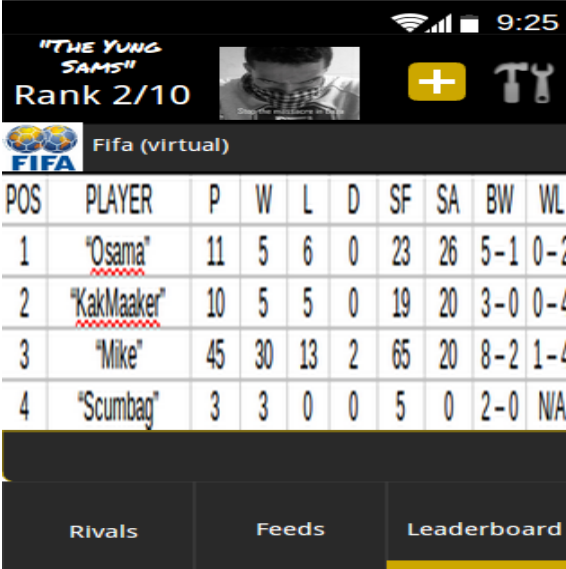
Figure 4: Main leader board

There is also a leader board per rival, ie. a leader that shows wins, losses, draws, etc. against a particular rival accross all games. The games in this table are not ordered (or ranked), instead there is only a W if the user is the overall winner against the rival in this game; a L if the rival is the overall winner against the user in this game; a D if there is no overall winner between the user and the rival in this particular game. Overall winning in a game is if the number of wins in a game are more than the losses, breaking ties on score for (the total amount of "score" scored by the user). It is still in question whether to use this in breaking ties, see Issues (page 6).

Figure 5: Leader board per rival

Finally, there is also a leader board per game. This is ranked in the same way as the main leader board but only considers one game and only your rivals that you have played this game against. The scoring shown in this leader board only includes games that you have played against a rival, not games played between rivals or a rival against a user that is not one of your rivals.

Figure 6: Leader board per game

6   Competition and Questionnaire Analysis

There is no direct competition for LeaderBoard but there are score keeping and recording apps like Scores Keeper [2] and Score Keeper [3] which have varying functionalities and disfunctionalities but none of which have a social aspect to it. Thus, the social aspect of LeaderBoard must be of high importance from this point forward.

In the questionnaire two questions were proposed, namely:

1. Which games (real or virtual) would you want a leader board between you and your friends for?

2. What do you think of when you hear "social ranking app"?

The first question was asked in order to gauge the variety of games that people were interested in using this app for. If only a handful of games were suggested then maybe the app could be more specialised for these games. This would also help resolve the issue of whether to pre-set the games list or to let users enter game names as they please (see Issues). Answers to this question were varied with a slight tendency towards table tennis. An interesting answer was involvement in Stellenbosch residence, which could spawn an app on its own.

The second question was asked in order to get a good idea of what people rank themselves in. This could help with real-life games that could be added to the list or even further the functionality. This also helps to decide whether to have "social ranking app" or "social game-ranking app" as a description for this app. Answers to this question were also varied, surprisingly, from ranking in social status to ranking in social activity to ranking people by how much you like them. Thus, the description for this app needs to be refined.

A physical questionnaire was printed out and given to people. Also, the question was posed on a Facebook account with 906 friends. The physical questionnaire yielded the best answers as it co. The Facebook poll was not taken seriously and nonsensical answers were given.

7   Issues

Units for scoring might not be ubiquitous for the same game, ie. One user logs that he/she scored 3 - 0 in sets for a game whereas another logs that he/she scored 15 - 0 in one set for a game. This would have an effect on the leader board per game as ties are broken by points scored for.

Game names can either be added at will by users or a pre-set of games will be chosen. If games can be added at will then there would need to be some sort of word completion and spell-checker so that there are not concurrent version of the same game but with different/uncorrectly spelt English names in LeaderBoard. If there is going to be a pre-set list of games then there should be a way for users to suggest new games to be added to the list.

The description for the app needs to be precise.

8   Requirements

User details:

- Users will be able to choose a username as well as their real name and surname.

- Users will be able to choose their location.

- Users will be able to upload a profile picture.

- Users can change their details at any time.

Rivals:

- Users will be able to add another user who is also using the app as one of their rivals.

- Users will be able to accept or reject a rivalry request.

- Users will be able to challenge a rival in a game of their choosing.

- Users will be able to accept or deny a challenge request from a rival.

- Users will be able to cancel a challenge that they previously accepted.

- Users will be able to log the score for a game that they were challenged to.

- Users will be able to confirm or deny a score suggested by a rival that they were competing with.

- Users will be able to flag their rivals if they think that an incorrect score was logged or a correct score was denied.

- Users will be able to delete a rival from their rival list at any time.

Feeds:

- Users will be able to see when their rivals are challenging another of their rivals or someone else and what game it is.

- Users will be able to see what the final score is of a game involving one of their rivals.

- Users will be able to see when rivals have changed positions on the leaderboard.

- Users will be change what to include in their feeds at any time.

Notifications:

- Users will be able to be notified when they have been challenged or their challenge has been accepted.

- Users will be able to be notified when a score has been submitted for a challenge they are currently involved in or their score has been confirmed.

- Users will be able to be notified when a score logging has been denied.

- Users will be able to be notified when the leaderboard has a new leader.

- Users can change what to notified on at any time.

9   References

References

[1] *RICA* `http://www.gov.za/documents/detail.php?cid=371532`

[2] *Scores Keeper* `https://play.google.com/store/apps/details?id=org.bbt.scores3`

[3] *Score Keeper* `https://play.google.com/store/apps/details?id=com.fadeddragon.scorekeeper`