

## Data Identification and E/R Diagram

We began by brainstorming about the data we could collect from the registration form or Facebook login. We discussed the background of the users - age, gender, nationality and orientation, alongside different input potentials. For instance; the potential to input a user generated “guess” at the price, which would be stored used again to generate statistics visually. Reactions also are considered as a major research tool, providing us with extra detail on users personalities. Comments can provide qualitative data about opinions and can feature on other parts of the website.

Overall, the data is stored in 6 tables - *users*, *comments*, *banana\_prices*, *items*, *emoticons* and *item\_likes* tables.

The website will use user data to store and retrieve personal information. Users' primary key is called *id* and it will be used as a foreign key(*user\_id*) in tables like *comments*, *banana\_prices* and *emoticons*. There will be 2 different ways to receive the user data either through Facebook registration or manual registration button. For the user, there is no visible difference between registration and login - in both cases, user clicks on the same button and system handles the rest.

The registration and login logic is as follows:

- User gives permission to the website to access his/her data on facebook;
- System retrieves user's name and background information
- System first checks if a user with this Facebook id exists in website's database;
- If user already exists, system just logs the user in;
- Otherwise system checks if Facebook has provided a valid e-mail for the user in its response;
- If there is no e-mail, user is sent to an additional form asking to provide a valid e-mail after which user is saved into website's database and logged in;
- If there is a valid e-mail, user simply is saved into website's database and logged in;

A registered user can leave a comment on the page. The *user\_id* is used to fetch user *name* and *profile* picture to show next to the comment. A publish date is shown next to the comment. *Banana\_prices* table collects the input value (*price*) and *date* when the value has been entered from the user. For data visualization purposes, statistics about the average guess for the banana price would be shown. The average price will be calculated from the price entered by all users.

Emoticons table stores emoji *image* and *name*. Every displayed emoticon will have image and name that is stored in database. In order to display the emoticon for an item, the table *Items\_likes* is created. *Items\_likes* stores foreign keys from *users*, *items* and *emoticons*.

To conclude, we can deduce that from the data we have collected we have many options on what to use it for, for instance; knowing the users age, nationality and gender would give Fairtrade a strong insight into what their target audience cares most about when it comes to choosing an emoji for each section. They would also be able to tell which topic is the most attractive and resonates best with them. This can be particularly useful for future campaigns or improvements on the current campaign. Using the email they've signed up with we can add an option to subscribe to the newsletter when they react to a particular article. This can be used to better target the user personally/individually. Likewise we also can add triggers elsewhere on the website to know if or when users have clicked on content, from a web-design point of view this could better our understand of user habits and also test the interactivity of our campaign. Recording the price the user guesses would give Fairtrade a better understanding of the assumption customers have on the price of their products. Tracking the visits of the website would give us a better mapping of our social media effectiveness.

