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Facharbeit: Development of a light-weight mobile app for the Swiss Feed Database

The Swiss Feed Database is a database storing the temporal changes of the nutritive values in animal feeds. An on-line system (www.feedbase.ch) is used from farmers, scientists, etc. to query the database, to know the location of the feed samples, to compare several nutrients, compute regressions, compute derived nutrients, etc. The aim of this project is to develop a mobile application using Apache Cordova that implements the functionalities of www.feedbase.ch in a lighter way (i.e., for mobile devices).

In general all functionalities of the web application should be offered in the app. If a functionality cannot be implemented using actual mobile techniques, then the report must justify in detail such a choice. Each functionality that does not need a different solution (e.g., retrieving the feeds or nutrients name) should remain unchanged and should refer to the same PHP files as the online application (in order to minimise duplicated code).

Tasks:

1. Get familiar with the code of www.feedbase.ch
2. Install Apache Cordova and build a minimal working example
3. Integrate in your minimal working example a menu for selecting the Feeds, Nutrients, Time and Space present in the DB
4. Integrate in your minimal example, a login section after which the user's top queries are fetched from the DB.
5. Step by step implement all functionalities offered on the web application in a static way, i.e., without any communication between various components (e.g., between the map and the data table).
6. The contents must be available in the user's language (i.e., german, french or english).



7. Implement a light-weight communication method between the components of the app (e.g., between the map and the data table) independent on the size of the result data. The goal is to minimise the number of information stored at client-side. It must be possible to display all data satisfying the user selection without limiting the number of samples retrieved.
8. Test your system both on an Android device and on an Apple one.
9. Write a report presenting and documenting the mobile app.

Concerning the display of the contents in multiple languages (i.e., german, french or english), make sure the translations are always synchronised with the web application by using the same language resources.

Report your progresses every week at your supervisor.

Literature:

- Cordova's documentation. <http://cordova.apache.org/docs/en/4.0.0/>

Supervisor:

- Francesco Cafagna

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Ending date: 31th July, 2014

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