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Refl.GPSPoints

The idea
In the beginning of the project, we had a vision of different features that would be included in our project. One of these features was the ability to check how many people are queuing at the present in different restaurants, making it easier to choose a restaurant during lunch. This feature was not a top priority and thus the development began at a late stage in the project development.

We found a method in the LocationManager class, once we began the research of this feature, where you can set up so called "proximity alerts". These alerts would be set up on specified locations, sending a boolean if someone is entering or exiting an area. Therefore we had an idea of using this function to make our vision come true.

Our preliminary plan was to use the LocationManager to set out the proximity alerts and then use our external database to handle a table for the restaurants. Through the database you can remove or add integers into each restaurant field and check how many people are located on the same place.

The progress
The task seemed easy at first, having pre-defined code to work with, but as the new feature grew - the complexity grew even faster. Because our feature would not only set out one alert, but many, and we were about to connect the feature to a external database which made the research grow deeper for each step.

We built a new table in the database located on a server we use, added functions to add/remove to/from the database and the ability to connect to the database when you pressed the button named "Get Queue". Also methods were added which were meant to set out the alerts, all of them, etc. After getting the functions for the database done and working, we tried to understand what else needed to be done.

The problems
Up to the day we decided to give up the feature, we had many problems. The first problem was to try and find solutions for what we wanted to achieve. This took some time, but the greatest problem from start was the lack of information available for this kind of use for android applications.

There are very few examples on the world wide web showing how to set proximity alerts and even less examples explaining why certain methods were used. The combination of additionally wanting to make alerts for multiple locations was incredibly hard to find. If it was not for the need to use a database for this feature, or the fact that we wanted to set alerts on different locations, we would have had an easier task to manage. The only examples found used proximity alerts for only one location, not for more. Most likely, this is one of the reasons why our solution did not work.

It seemed pretty easy when we first began the development of this feature, the ways of setting up an alert seemed smooth after reading the API's for the involved classes. The realization that more fields needed to be handled than just one for the alerts came as the progress continued. First of all knowledge was needed for how the alerts worked, how you set them up and what classes are involved in this progress. Also, knowledge was for the management of the database to store the information in and also research was needed of how to later print the information needed on the application screen. To conclude, there was a lot of new information to consume and new areas to learn which made this feature a hard task to do.

The decision

Several steps were complete on the way to finish off this feature, but as the project were coming to an end there was more things to do than just making a new feature. We needed to fix bugs, finish previous feature, refactor the code, test and document what we have done these weeks.

The general belief is that the feature is not far from being complete and therefore we will not remove the branch in case somebody wants to continue the development of this once the project is done. Someone might know a solution, hopefully.

Being not close from the goal makes it more difficult with the decision not to continue. Alas, it is more important for us to deliver a well-structured, well-working application than to eventually releasing another feature that will degrade the quality of the project as a whole. Since it is time-consuming to make this new feature complete and, the necessary tests will also need additional time, we decided important to give our time for the rest of the aspects of the project.