Sensitive natural area management app – GENS Mobile

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My internship took place at the young mixed association Eden 62. My job was to develop an Android app called GENS Mobile. To get this done, a team of three people has been made. My company mentor, Lydie DELAYEN, my guide in development, Hervé SALEMBIER and myself.

The company :

Eden 62, located in Desvres, is a mixed association which takes care of sensitive natural area. They also grant public access to these places and teach to common people how to protect nature and what contains it. You must think now what am I doing in this company. Well, they have a web app to keep track on every wildlife species spotted by nature warden. My job was to help them to report every inventory they make on a mobile app like they do in the web one. Which brings me to the project.

The project :

Within the framework of my third-year internship, I had the opportunity to work on the GENS Mobile project, which is an app designed to help nature wardens. For now, they take notes of their inventories, and later report them on the web app where they will be stored in the company database. GENS Mobile is built to regroup both part in the mobile app. They will be able to make inventories and also export them in the database. These features are only the first part. They also are able to make GPS markers, like mark a special point on the map that they want to remember of, or if they want to keep track of their path.

To fullfil these functionnalities, the app grants a geolocated map service. In it, nature warden will be able to report an inventory at their exact place and it will be stored in their phone. By the same process, they're gonna make field survey of their path during inventories campaign or draw an area by travelling across the map.

My internship concretly :

At the beginning of my internship, the web app already existed. I didn't have to begin from nowhere, well I began from nowhere with the app because nothing was done on it before I arrive, but I still had a path to follow.

We designed the User Interface with the team but the background of the app was made by me, even if in case of problem Hervé was here to support me. With the desire of running the app on Android, the code was made in Java for the features and in XML for the UI.

At first, I've started the wrong way with the map. We wanted it to be acessible offline and i chose a library, OsmDroid which was supposed to work, but with more digging, it doesn't. So i had to change my lybrary so it could work. I chose Mapsforge because unlike OsmDroid, it's an up to date project and has a Google group where we can post messages in case of

problems. With that done, the project was able to go further and grants inventories and field survey features.

At last, the syncronisation of data between users' smartphone and company's server had to be made. So i made a feature that sent user's data to the server and retrieved from a php script made by Hervé to store it in Eden database.

Conclusion :

This internship was really worth for me. It made my career more precise, brought even more skills in Java applied to Android, wich is the develop language i want to work on. These three months have also shown me the benefice of teamwork. I really appreciated my time passing by just talking with my teammates to make the app the most convenient for the user. It was also my first work experience and it showed me what it's like to work with responsabilities.