Implementing Speech-to-text Technologies for on-the-go

In Partnership with

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Project Outline

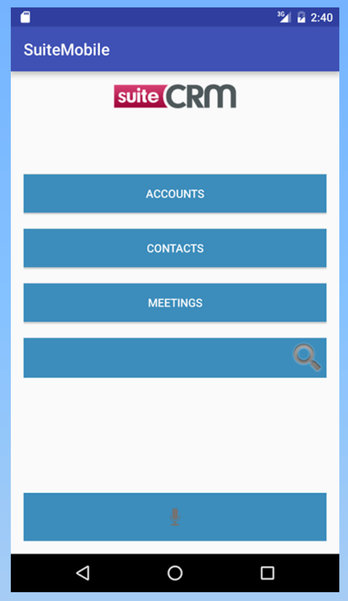
The initial project outline was to develop an android application for SuiteCRM capable of harnessing the power of speech-to-text technology to provide an on-the-go solution for their end users.

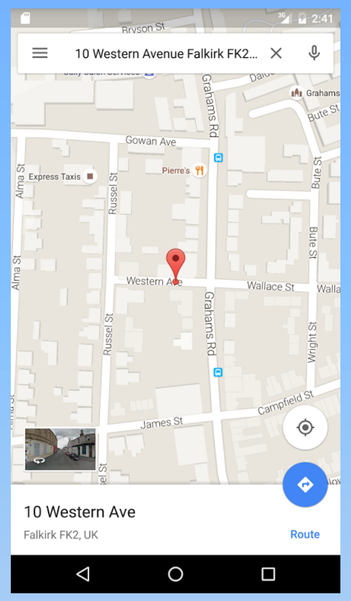
The main challenge was to bring together three elements that were unfamiliar.

1. Building an Android application in Android Studio.
2. Sourcing and utilising a speech-to-text library.
3. Understanding the newly developed SuiteCRM REST API and using it to implement the entire CRUD cycle.

Technologies Used

- Java
- SQL(MySQL & SQLite)
- JSON
- PHP – REST API
- XML





Development Solution

The final development solution included additional features to those in the project outline as it needed to serve the end user as a more all-round tool. Google Maps functionality was a well received feature in testing.

Features included in the final solution:

- Up-to-date views of all data when Online.
- Offline support
- Text searching
- Voice searching
- CRUD cycle on all modules (using REST API).
- Google maps integration.
- Text-to-speech playback.
- Device integration (GPS, dialler and local mail clients)

Future Scope

This project has provided a learning experience and the opportunity to influence change in the business. Due to the work done in this project SalesAgility are pursuing the development of an application that builds on this work.

Ideas for future work include increased module support and enhanced voice commands for more natural commands. Offline support would also need to be more robust for large numbers or records.

Below is an example of some GUI mock-ups produced by the designer at SalesAgility. The screenshots below show how the app could develop and how its theme could fit with the upcoming SuiteCRM theme.