

# Mobile Application For Healthcare Sector Using Android Framework

## RK Healthcare Services

RK Healthcare Services is a large organisation based in Australia that provides community based healthcare services to senior citizens and people with physical disabilities to live independently and remain in their homes for as long as possible.

RK Healthcare's range of services include door to door visits for regular check-ups, providing prescriptions by analysing patient's current situation, personal support services, adult care services and more.

The operation has a staff of 110 field workers and 50 office workers constantly trying to improve the quality of the services provided.

NOTE: Due to confidentiality agreement the name of the company has been changed for this case study.

## The Challenge:

The management was challenged to organise routes and timetables to allocate tasks to field staff, monitor their locations and guide them towards the client's home location.

RK Healthcare has a widely stretched service network covering various states with a staff of 110 people constantly on the move the whole day. The office staff needed to be in direct communication with the field staff to provide them the information they required concerning the clients they were visiting. The company could not afford a break in communication. In short, the management needed an efficient system that could help them organise, track and monitor the 110 people in the field.

Managing all the data and making it available online to office staff for medication purpose was yet another difficult challenge. Management also needed to come up with a plan to provide access to this database of information on various drugs and medications to the staff in the field.

## The Solution:

After analysing all the challenges being faced by the organization, Tabaq Software offered to provide a mobile based solution to overcome all these problems and reduce the efforts of both the office and field staff. The solution was built on Android Framework, Spring, Hibernate, Microsoft SQL Server, Mina Server and Jason API.

Each staff and field member were provided with the Android —powered phones. The mobile solution provided by Tabaq consists of two versions; one for the field staff and the other master version for the office staff. Both versions can be connected to the online server available over the internet. The online server

acts as the main server to push and pull the relevant data according to the access defined for each member.

Now using the Android-powered phones the office staff members can set the weekly and daily schedule for the field staff. Scheduling of task includes the basic information about the patient; name, nature of services, address etc. An office staff member uploads all the tasks on the main server on weekly basis. Scheduled task can be changed and uploaded again according to the scenario on daily basis. Relevant field staff members are automatically notified by the application to get the updated schedule if any changes occur. Using this mobile application office staff can also create dynamic prescription forms for each individual patient which can be easily downloaded by the field staff from the main server.

The application also provides navigation facilities for the field staff to reach the patient's location using GPS and Google Maps. Using GPS and Google Maps, managers are now able to better analyse the time allocated to each patient by the field staff and track individual staff location while travelling to the patient. System automatically generates alerts about staff location which is very beneficial for the management of the field staff and in perspective of their own safety while moving around different locations.

## **The Result:**

Since the implementation of this mobile application, RK Healthcare services has not only been able to smooth the communication between its office and field staff but has also saved on 5% operational cost by controlling the time field workers spend on one visit. Due to this solution the average time a field worker was spending to reach the client and filing out the basic paperwork and prescriptions has reduced.

The overall operation of the organisation has also improved due to this application. The office staff are able to come up with better plans, routes and rotas. The field workers are more confident as they know they can access information from anywhere and at any time. GPS tracking gives them confidence that the office staff can monitor their location all the time for their own safety.

## About Tabaq Software:

Tabaq Software is a software development company with a goal to provide bespoke IT solutions to companies to help them implement better, more efficient and cost effective business solutions.

With a highly technical and business-aware team, Tabaq Software focuses on adding commercial value through providing bespoke software development services to clients whose needs are not fulfilled by off the shelf software. Tabaq Software offers its customers a range of bespoke services including application development, application re-engineering, application Integration, mobile application development, web application development including Web 2.0 and CMS development. Support and maintenance services for live sites and projects are also offered by Tabaq Software.

Tabaq Software has designed and developed a unique support network for the convenience and satisfaction of Tabaq's clients and partners. This portal provides an instant, secure and trouble free platform to file issues as well as access technical documentation and knowledge base.

jComply is Tabaq Software's flagship product. jComply is a complete policies and procedures management system which is currently being used in financial, healthcare, public, pharmaceutical and other sectors. jComply is available as a standard license or as software as a service. Add-on modules include risk assessment, accident and incident management, audit and jComply mobile.

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