

**IoT**

# **IoT Empowering patients, their family and caregiver with medication management**

## Summarizing the Situation

A leading healthcare ISVs in Singapore realized that many working couples are worried about their aged parents staying alone at home, especially when parents are suffering from illness. To confirm this observation, the client surveyed 500+ couples. The survey confirmed that the hypothesis was true. They got to learn that the couples are worried about below concerns:

- Their parents are confused about the meds' dosage
- They often miss taking the meds on time
- Aged parents on multiple meds find it difficult to read and identify all meds to be taken
- The couple has to set a reminder so that they can call their parents on time to take the meds

Aside from this, in absence of any automated information, their physician also assume that the patients are adhering to medication.

## Situation Impact

Health is the primary and concerns related to sorting meds, overdose /short dose, missing dose create health risks. There were no way caregivers, doctors, and relatives could have figure out their patients & adherence to medication.

## Resolution

The client approached Softude with an idea to fill this gap by creating a mobile application that is integrated into an IoT-based Pill-box. The pill box can hold 10 different types of medicines and 30 days of dosage.

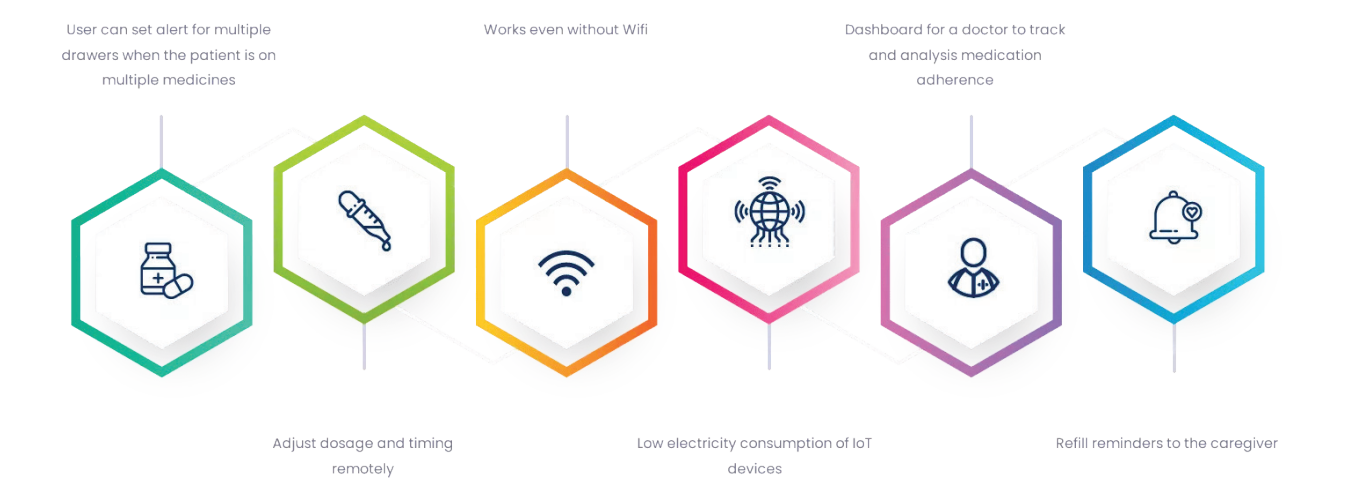
Softude's Mobile and IoT practice worked on the project together. The Mobile team created an application for iOS and Android devices. The IoT team worked on hardware i.e. designing a pill box that has multiple drawers to hold different types of medicines. The pill box also has a display screen to flash medicines and their quantity to be taken and a speaker for customized voice messages to remind the patient.

## Flow of application

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- Set instructions for pill-box from a mobile device like meds' time, its quantity, and a customized message for a patient
- Keep meds in the IoT enabled pill-box
- At the time of dosage, a voice message from pill-box reminds the patient and guides them with the light to open a specific drawer to take that particular medicine
- Once the patient opens that drawer, display screen alerts the dosage of medicine
- As soon as the patient closes the drawer, it sends an SMS notification to the caregiver about the status of meds taken or missed

# Feature and functionality of the application



## Flow of application

A caregiver - “My dad takes 9 medicines daily. With this smart healthcare solution, he doesn’t need to spend much time and effort in sorting them. It also allows for easy dosage adjustments when there’s a need.”

A patient – “Very easy to use. Even children can use too. It’s better to take the medication on our own with the solution. The nurse can relax more.”

A nurse – “The solution reduces errors and the time needed in medicine sorting. It provides home nurses like me more time for patient interaction too.”

## About Us

Softude is a global IT consulting and services company with expertise in architecting digital transformation solutions and providing software product engineering services. Softude is dedicated to creating innovative and interactive digital experiences that connect people to the brand. These software solutions that are used across 30+ countries are engaging audiences in-venue, on the web, and personal mobile devices. With a highly competent and trusted team of 425+ members, Softude delivers digital brilliance that accelerates the digital-first journey of brands.

Softude is a CMMI Level 5 appraised, ISO 27001:2013, ISO 9000:2015 and a Great Place to Work For certified company.

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