

PERSONAL ASSISTANCE FOR SENIORS WHO ARE SELF- RELIANT

TEAM MEMBERS

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PROBLEM STATEMENT

Most of the old age people have multiple medicines to take to overcome their illnesses. However, they often forget to take their prescribed medicine on time, making it difficult for the caretakers to keep tabs on the patients and diagnose them in the right manner. Such situations may sometime escalate to a life-threatening ones.

An app is built for the user (caretaker) which enables him to set the desired time and medicine. These details will be stored in the IBM Cloudant DB. If the medicine time arrives, the web application will send the medicine name to the IoT Device through the IBM IoT platform. The device will receive the medicine name and notify the user with voice commands. The aim of this project is to design a medicine reminder system that prompts the user to take their medicines on time, thereby reducing the fatalities caused due to negligence.

EXISTING SOLUTIONS

- **Karantis360**

Reference Link: <https://karantis360.com/how-it-works/>

- **Smart Pill Box**

Reference Link: <https://ijettjournal.org/assets/Volume-67/Issue-5/IJETT-V67I5P230.pdf>

- **Intelligent and Safe Medication Box In Health IoT Platform for Medication Monitoring System with Timely Reminders**

Reference Link: <https://ieeexplore.ieee.org/document/9442017>

- **Smart Pill Box System for Bipolar Disorder Patients**

Reference Link: <https://ieeexplore.ieee.org/document/9090716>

INFERENCE FROM THE EXISTING SOLUTIONS

- Almost all the existing solutions have used an application based approach to set reminders.
- The applications usually have a feedback section to ensure the patient has taken their prescribed medicines. If not, a constant reminder keeps buzzing until the medicine has been taken by the patient.
- The existing solutions were framed in such a way that they intimate about time, dosage, stock of medicine and sorts out different pills in correct sub boxes during the next fill by caretaker.
- Medication box framework undergoes three stages every time when the pill falls in the tray i.e. pill loading, pill releasing and default stage after releasing the pill in the tray.
- In the existing solution, different compartments are used for the users based on their requirements, and the compartments are with automatic lock system and feedback to the mobile application.

AIM/IDEA FOR THE PROJECT

- We aim to design an IoT based application that prompts the users to take their prescribed medicine on time using IBM Watson.
- Users can configure the medicine name and time through a web application. All data(medicine details) is stored in the IBM Cloud using Cloudant DB, which will be used by the designed IoT application.
- The application will notify the user using voice commands that is designed using Text-to-Speech Converter.
- With the help of voice commands, user could get easily attentive and could take the medicines without delay.
- Through this application we could regularly monitor the users along with information about medicines to be taken and we could also alert them to repeat or refill the medicines.
- We could track the medication history and make the scheduling flexible as per the requirement of the users.