# E-Care Ecosystem: Online Medical Advice and Drug Controlling Application

Problem Overview:

The Medical Services have improved to a great extent over the last few decades, but the flow of critical patient information and other procedures are fairly slow given the limited reliance on computers for the same. Patients have to wait for days after making an appointment to actually see the doctor, travel long distances for consultation, go to the medical store and wait in line to purchase the drugs on the prescription. Sometimes the process is just so long that the patients use drugs out of their own discretion without taking the trouble of the process, which does not always act in their favor. This problem needs to be addressed through an ‘application’ where the patient can schedule the appointment for later visit, send the details about his/her symptoms to a particular doctor to get a preliminary prescription from the doctor and get the prescribed medicines delivered at home by the pharmacy.

The other critical issue is related to controlling the negative or side-effects of drugs. Usually after a drug is launched, it takes a long time for the information about its negative effects to reach the relevant people who play an important role in regulating the usage of the drugs. This problem can be solved through having a common platform for the patients, doctors, administrators and drug manufacturers to review the drugs and share such information. It will significantly reduce the reaction time and allow the administrators to roll back the drugs from pharmacies, doctors and patients.

Application Key Functionalities:

1. The patient can search for the physicians available in a particular city.
2. The patient can register and send details of his/her symptoms, past medications and vital signs to his selected physician.
3. The patient can get preliminary prescription online.
4. The patient is able to schedule an appointment with the doctor for later visit.
5. The physician can check the cases and appointments on the dashboard.
6. The physician can give diagnosis based on symptoms and prescribe medicines.
7. With the consent of patient, the doctor would be able to extract the past medical history of patient based on universal Medical ID.
8. The physician can send the prescription to the pharmacist for a particular patient.
9. The system allows pharmacist to deliver prescribed drugs to the patient at home.
10. Pharmacist can check inventory for the reports for the drug released for a certain period for a particular patient.
11. The system allows patients and doctors to send the feedback to the drug manufacturer in case of harmful effect/allergy.
12. The pharmacies, suppliers and manufacturers can roll back the released drugs on the directions of relevant authority.
13. Financial management of order processed by Pharmacies.(Future Aspects)

Proposed Entities:

Hospitals, Physicians/Doctors, Nurses, Patients, Administrators, Pharmacies, Suppliers, Lab Assistants, Receptionist and Drug Manufacturer.

Additional IOT features:

1. Patients having identical health problems would be able to view the graphical representation of each other’s health condition over a given timespan, which might be useful to take insight to rectify the medical problems faced.
2. Physicians and Pharmacies would be able to retrieve analytics about patient’s medical history and help them in improvising their prescription.

References:

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