

SYSTEM ANALYSIS & DESIGN

OPEN SOURCE STUDY VIRTUAL CLINIC

System Design Document (SDD)

Tools

Tools required for drawing the following diagram:

- Context Diagram: Lucid Chart
- Data Flow Diagram: Lucid Chart
- ER Diagram: ERD+

Description of the entire System:

“Virtual Clinic” is based on the concept of the integrated care system. Stakeholders for the system are Doctors, Patients, Labs, and Chemists. As shown in the below diagrams a patient makes his/her consultation request to the system by entering the symptoms, the system forwards the consultation request to a doctor of the concerned specialty. The doctor generates a prescription comprising of Diagnosis, Medicines, and Lab Requests(if needed) based on the symptoms provided by the patient. The prescription is received by the patient, localized chemist, and localized labs. Using the prescription Chemists provide medicines to the patient via offline delivery. Labs, too, use the same prescription to collect specimens from patients and make the delivery of lab reports based on lab tests. Chemists and Labs, only need to know the information will be displayed thereby protecting the Patient’s confidentiality.

Context Diagram

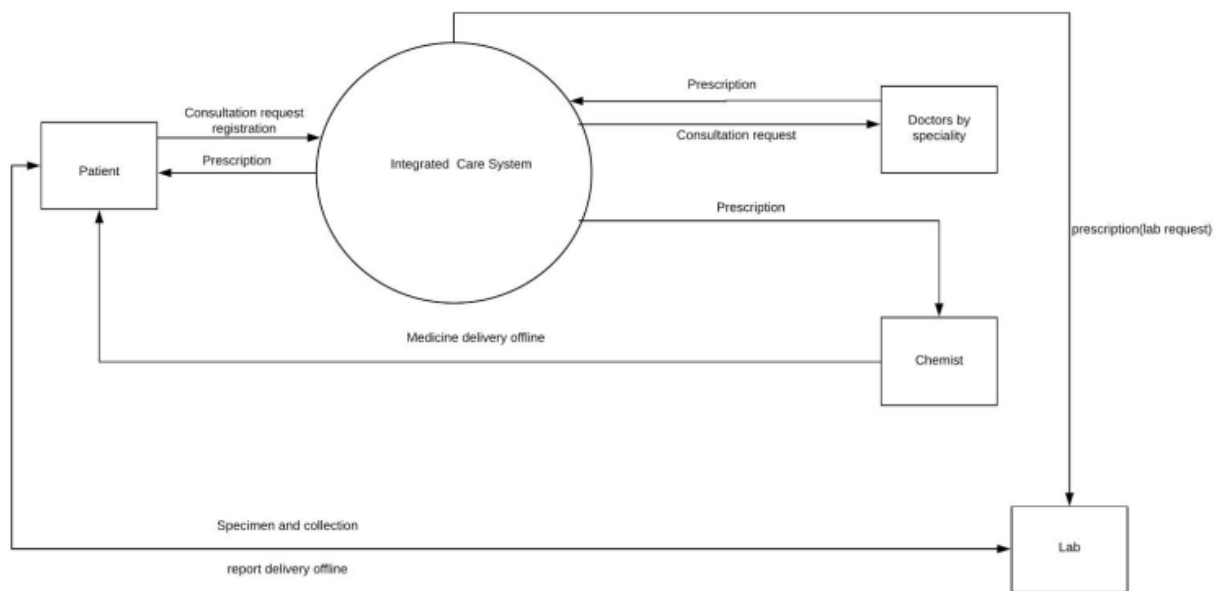


Fig: Context Diagram

Data Flow Diagram

Entities: Admin, Patient, Doctor, Chemist, Lab

Data Stores: Specialty database, Doctor database, Chemist database, Lab database, Patient database, Patient consultation request database, Prescription database

Processes: Maintain specialty, Maintain doctors, Maintain chemist, Maintain labs, Maintain patient profile, Consultation request, Consultation, Lab request, Medicine delivery, Generate patient prescription

Data Flows: Specialty Details, Doctor's Details, Chemist/Lab Details, Patients Details, Consultation Request, Diagnosis, Medicine, Lab Request, Diagnosis, Lab Request, Medicine Delivery request, Update Medicine Delivery Status, Collect specimen, Update Lab Reports, Generate Prescription

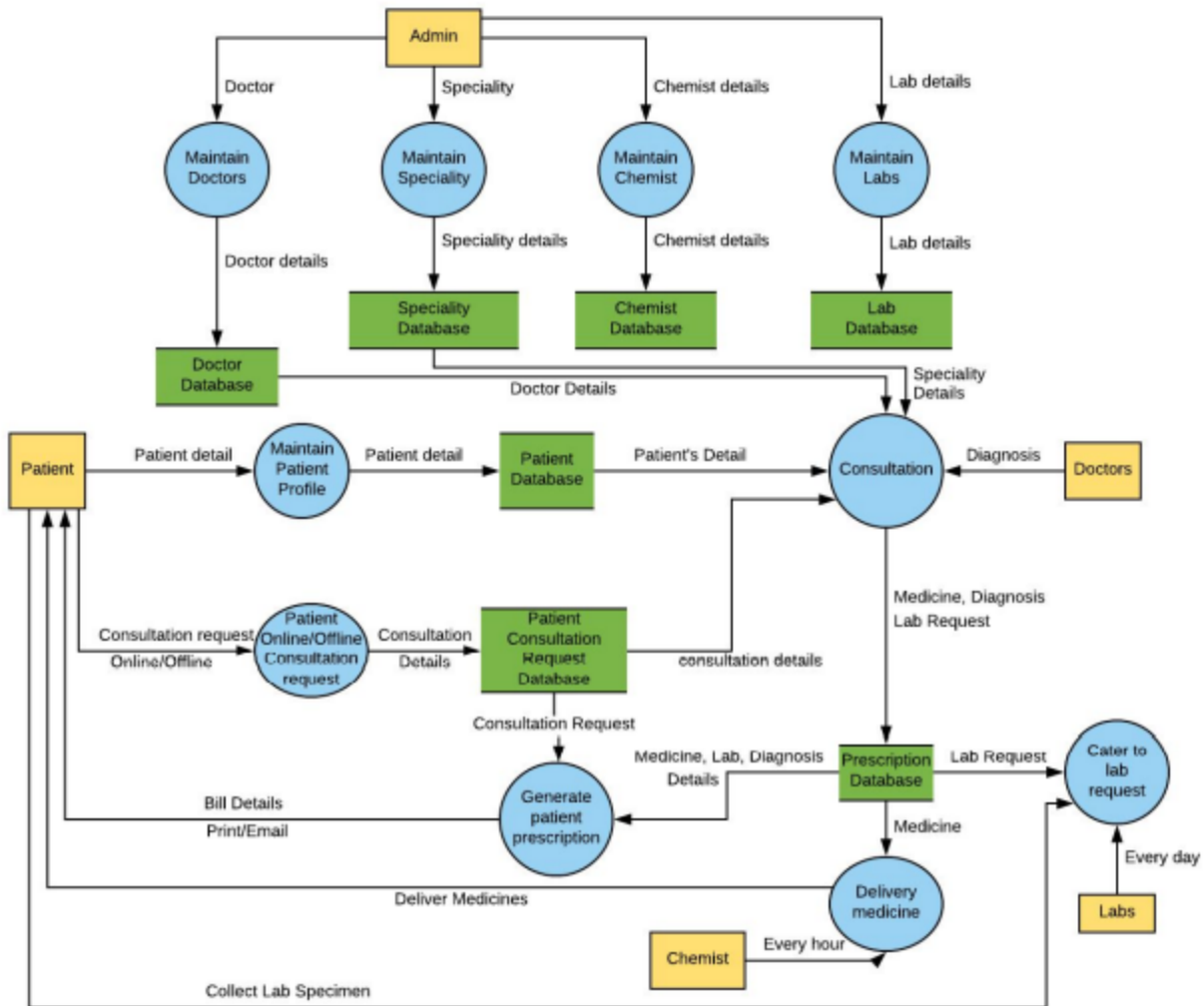


Fig: Data Flow Diagram (DFD)

ER Diagram

E-R diagram depicts the relationships between several entities along with the attributes that are present in the system. In Virtual Clinic there exists entities like Speciality, Doctor, Patient, Patient consultation request, etc. All of them have several attributes linked to them and share different kinds of relationships with each other. It is well described in the below diagram and explained in the relational model.

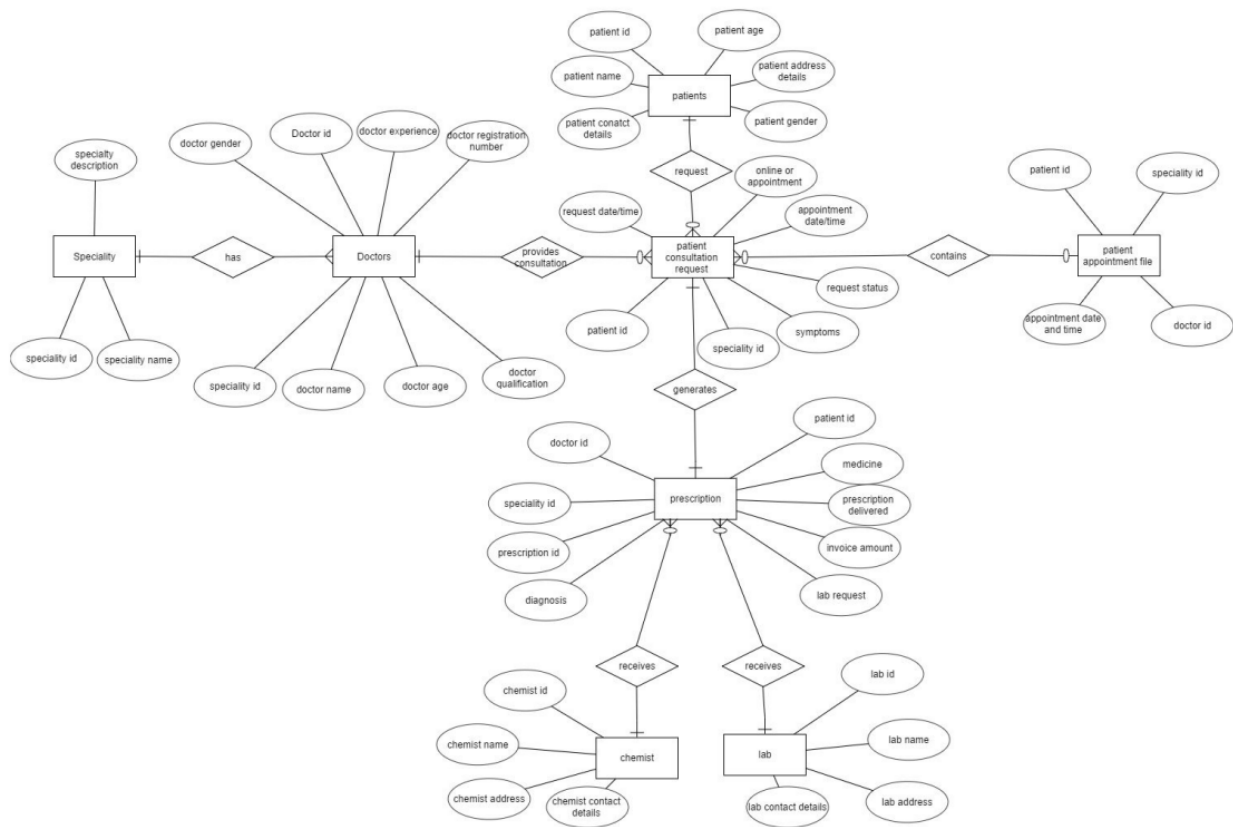


Fig: ER Diagram