



A hospital decided to implement an online system to help manage patients and all employees as efficiently as possible. **Your goal as a system analysis is to structure the ERD diagram to cater for all requirements requested by the hospital's management.** Your Diagram must reflect the business processes and make sure records are consistent.

In the hospital, there are different departments, managers are responsible for managing their employees and at the end of each day they can generate process reports. Moreover, the hospital contains numerous clinics, which are managed by physicians. Each clinic has many equipments which are provided by aone or more specialized supplier. This will guarantee providing best treatments for patients.

When patients come to the registration office they are entered into the system by the front desk personnel. If this is the first time the patient has been seen, insurance and basic demographic information is collected from the patient.

If the patient has been seen previously, the patient is asked to verify the information.

In both cases, the front desk personnel ensures that the patient has a chart in the electronic medical records system.

The patient is then entered into a queue to wait for a medical technician who will collect health history, weight, height, temperature, blood pressure, and other medical information, placing it into the patient's medical record.

Next, the patient is placed in the queue to see a doctor. The first available doctor sees the patient, prescribes medication or treatment when appropriate, and sends the patient to checkout. The person at checkout collects the payment for the services, prints out prescriptions for medications or treatments, and provides a printed record of the health services received.

Different types of patients visit, out-Patient to in-Patient, each patient will eventually be assigned to a physician to treat him. Each physician treats multiple patients during the day.

In the hospital there are three types of employees (staff) who are, hourly employees , full time employees (example clerks), and physicians.

Some information is general for all employees such as `empName`, `empNumber`, `address`, `dateHired`. Other attributes are specific for each employee type, for example **physicians** have : `specialization` , `board certificate issuing country` , `licenseID`...etc .**Housley employee** must log how many hours they worked and the agreed on hourly Rate.

**DFD Context Diagram:**

