# Case Study 2 - Hospital Management System

**Task 1]** Create 5 Functional & Sub-functional requirements respectively For Hospital Management System.

→ 1) ⓐ To add the Patients
Input : To enter Patients name, Phone number, bed number, word name, doctor's name to whom it assigns, etc.
Output : Details of newly admitted patients in hospital
ⓑ To assign ID to patient
Input : To enter patients all personal details & assign a unique ID to him/her.
Output : Maintain record sheet of patient throughout their hospital stay.

2) Deleting Patient ID
Input : To enter the patient unique ID at the time of admitting into the hospital.
Output : Record for particular ID of patient will be erased at the time of checkout from hospital.

3) Availability of bed
Input : Total no. of patients & beds for each in particular words.
output : Generate report on availability of occupied or un-occupied beds, wards & more.

4) Generating the bill
Input : Patient's unique ID allotted to him/her at the time of admitting in hospital
output : Generate the bill of patient during his/her stay till checkout from hospital.

5) Prescription
Input : Requires Patient's ID & name of Doctor to whom it was assign.
output : Generate the prescription and also do's & don't's after checkout of patient from hospital.

**Task 2]** Prepare a SRS document For Hospital management system.

→ A software requirements specification (SRS) is a description of a software system to be developed. The SRS lays out functional & non-functional requirements & it may include a set of use cases that describe user interactions that software must provide to user For perfect interaction.

The SRS docx lists sufficient & necessary requirements For project development. To derive the requirements, developer needs to have clear & thorough understanding of the products under development.

## S.R.S.

**1. Introduction**

**a) Background**

Hospital are the most essential part of our lives providing best medical facilities to people suffering From various ailments, which may be due to change in climatic conditions, increased workload, emotional trauma stress, etc. So, it is necessary For the hospital to keep track of its day with the help of technology as it can reduce 90% paper usage For Hospital management System.

## b) Overall Description

Goals of proposed system:

(i) Planned approach should be there towards working so, that data stored should be safe.

(ii) Accuracy of the proposed system must be at high level so that information provided by system must be accurate.

(iii) There should be no Redundancy & high Reliability in proposed system so that things doesn't repeat. For Eg. patient name or medicine, etc.

(iv) Also, The system must be easy to operate.

## c) Environmental Characteristics

1. Hardware -
   - (i) OS - Win 10
   - (ii) Hard disk - 1 TB
   - (iii) Ram - Minimum 8GB
   - (iv) Keyboard & mouse - Standard

## 2. Goal of Implementation

- Achieve good quality ratings for there service.
- Improved clinical decision - making for management section.
- Establish your Hospital as technically advanced to avoid problems in procedure for the treatment & service for Health
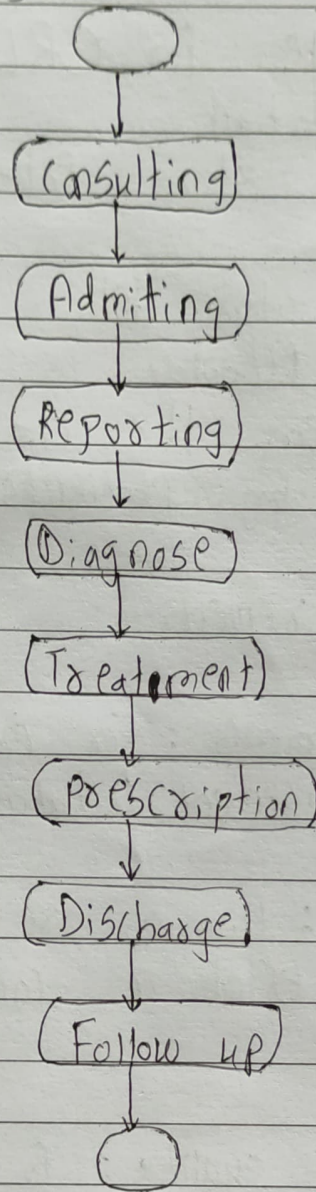
3. Functional Requirements

- Administration module : For CRUD operation about patient information.
- Patient module : To store PatientId, name & other Personal details
- lab module : To store details reta related to reports of Patients.
- Billing module : To pay the charges for the service used by patients (including medicines)

4. Non-Functional Requirements

- Performance requirements : For managing Password management, Database & Virus protection

- Safety requirements : Humans are error-prone but negative effects of common errors should be limited.

- Security & software quality : To improve the reliability and Accuracy of the data maintained (patient data) & maintain security for Password for administrations.

5. Behavioral Description
   - System States

```
        ( )
         |
         v
   ( Consulting )
         |
         v
   ( Admiting )
         |
         v
   ( Reporting )
         |
         v
   ( Diagnose )
         |
         v
   ( Treatment )
         |
         v
   ( Prescription )
         |
         v
   ( Discharge )
         |
         v
   ( Follow up )
         |
         v
        ( )
```

   - Events & Action
   ① Events
   (i) To admit a serious patient & Fill Application form.
   (ii) Arrange Doctor's team for particular disease
   (iii) Check available Rooms/O.T. & if needed for transplanting organs service.

② Action

(i) Admin module
 - Watch appointment of doctors
 - Watch diagnosis report & also blood bank report

(ii) User module (patient)
 - View Appointment (with doctor's name)
 - View prescription details

(iii) Accountant module
 - Create invoice for payment
 - Manage own profile

(iv) Nurse module
 - Manage blood bank & update status
 - reminders for of changing Saline for Patient

(v) Pharmacist module
 - For managing medicine & other injectables.

(vi) Doctor & lab module
 - Create & manage appointment with patient
 - Update diagnostic report like x-ray, CT scan, MRI
 - Manage own profile.

Task3) Design a Kano model for requirements explained in Task 1



Excitement attributes

Performance attributes

Functionality

Indifferen

Threshold attributes

satisfaction