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“Creating of Culture of Excellent”

Project Name: Hospital Management System.

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1. Introduction

1.1) Purpose

- The Software is for the automation of Hospital Management.
- It maintains two levels of users:-
 - >Administrator Level
 - >User Level
- The Software includes:-
 - >Maintaining Patient details.
 - >Providing Prescription, Precautions and Diet advice.
 - >Providing and maintaining all kinds of tests for a patient.
 - >Billing and Report generation.

1.2) Scope

It can be used in any Hospital, Clinic, Dispensary or Pathology labs for maintaining patient details and their test results.

1.3) Technologies to be used

This project will be a desktop application to be developed in VB 6.0 having Ms Access as backend.

- Database Design (Ms Access)
- Form Design (VB 6.0)
- Coding (VB 6.0)
- Testing (VB 6.0)
- Reporting Tool (Data Report)

1.4) Overview

- >Project is related to Hospital Management System.
- >The project maintains two levels of users:-
 - Administrator Level-Doctor
 - User Level-Data Entry Operator

>Main facilities available in this project are:-

- Maintaining records of indoor/outdoor patients.
- Maintaining patients diagnosis details, advised tests to be done.
- Providing different test facilities to a doctor for diagnosis of patients.

1. X-Ray
2. Urine Test
3. Stool Test
4. Sonography Test
5. Gastroscopy Test
6. Colonoscopy Test
7. Blood Test
8. Biochemistry Test

- Maintaining patient's injection entry records.
- Maintaining patient's prescription, medicine and diet advice details.
- Providing billing details for indoor/outdoor patients.
- Maintaining backup of data as per user requirements (between mentioned dates).
- If user forgets his/her password then it can be retrieved by hint question.

>In this project collection of data is from different pathology labs.

>Results of tests, prescription, precautions and diet advice will be automatically updated in the database.

>Related test reports, patient details report, prescription and billing reports can be generated as per user requirements.

>User or Administrator can search a patient's record by his/her name or their registration date.

>Patient's diet advice can be provided in Hindi.

2. Overall Description

2.1) Definitions of problems

1. Lack of immediate retrievals: -The information is very difficult to retrieve and to find particular information like- E.g. - To find out about the patient's history, the user has to go through various registers. This results in inconvenience and wastage of time.

2. Lack of immediate information storage: - The information generated by various transactions takes time and efforts to be stored at right place.

3. Lack of prompt updating: - Various changes to information like patient details or immunization details of child are difficult to make as paper work is involved.

4. Error prone manual calculation: - Manual calculations are error prone and take a lot of time this may result in incorrect information. For example calculation of patient's bill based on various treatments.

5. Preparation of accurate and prompt reports: - This becomes a difficult task as information is difficult to collect from various registers.

2.2) Alternative Solutions

1. Improved Manual System:-

One of the alternative solutions is the improvement of the manual system. Anything, which can be done by using automated methods, can be done manually. But the question arises how to perform thing manually in a sound manner. Following are some suggestions, which can be useful in the manual system.

2. Batch System:-

Another alternative solution can be used of computer based batch system for maintaining the information regarding purchase details, customers and employees. A batch system refers to a system in which data is processed in a periodical basis.

3. Online System:-

This system (HMS) provides online storage/ updating and retrieval facility. This system promises very less or no paper work and also provides help to Doctor and operational staff. In this system everything is stored electronically so very less amount of paper work is required and information can be retrieved very easily without searching here and there into registers. This system is been discussed here.

3. Feasibility Study

Depending on the results of the initial investigation the survey is now expanded to a more detailed feasibility study. "FEASIBILITY STUDY" is a test of system proposal according to its workability, impact of the organization, ability to meet needs and effective use of the resources. It focuses on these major questions:

Steps in feasibility analysis

Eight steps involved in the feasibility analysis are:

1. Form a project team and appoint a project leader.
2. Prepare system flowcharts.
3. Enumerate potential proposed system
4. Define and identify characteristics of proposed system.
5. Determine and evaluate performance and cost effective of each proposed system.
6. Weight system performance and cost data.
7. Select the best-proposed system.
8. Prepare and report final project directive to management.

3.1) Technical feasibility

A study of resource availability that may affect the ability to achieve an acceptable system. This evaluation determines whether the technology needed for the proposed system is available or not.

- Can the work for the project be done with current equipment existing software technology & available personal?\
- Can the system be upgraded if developed?
- If new technology is needed then what can be developed?

This is concerned with specifying equipment and software that will successfully satisfy the user requirement. The technical needs of the system may include:

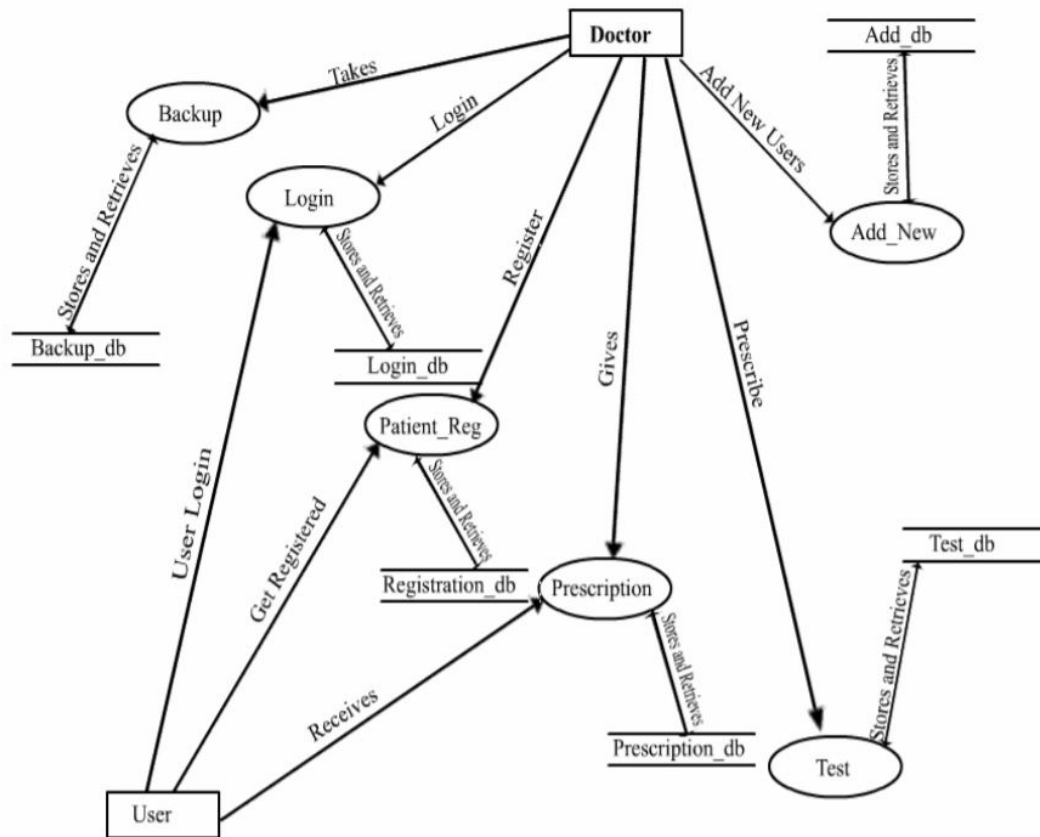
3.2) Economical feasibility

Economic justification is generally the “Bottom Line” consideration for most systems. Economic justification includes a broad range of concerns that includes cost benefit analysis. In this we weight the cost and the benefits associated with the candidate system and if it suits the basic purpose of the organization i.e. profit making, the project is making to the analysis and design phase.

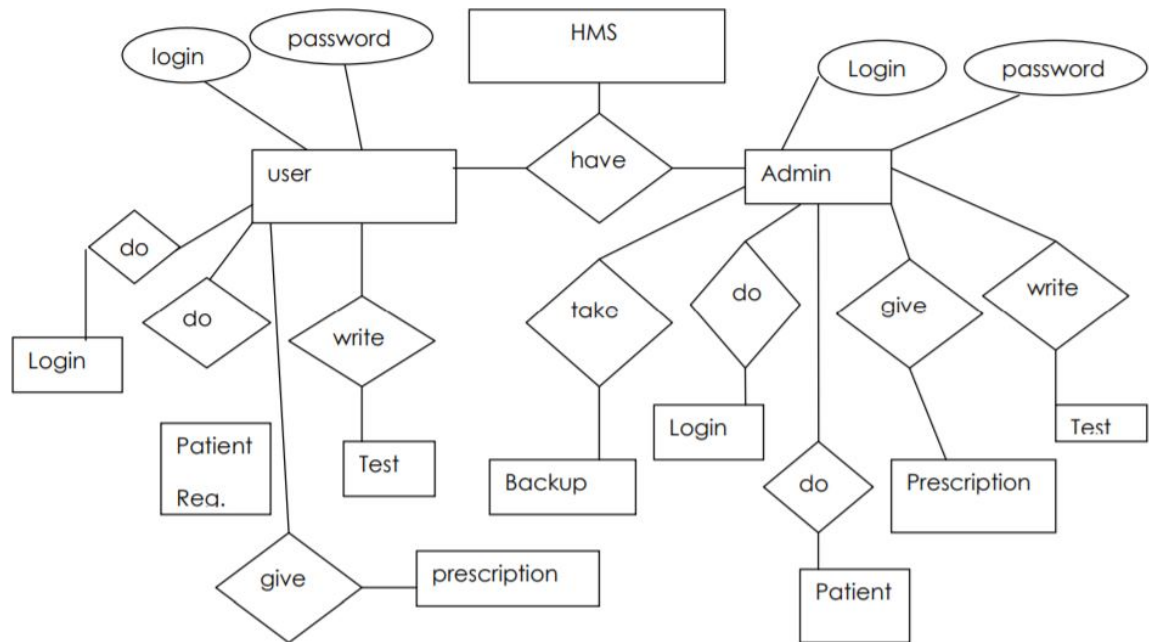
The financial and the economic questions during the preliminary investigation are verified to estimate the following:

- The cost to conduct a full system investigation.
- The cost of hardware and software for the class of application being considered.
- The benefits in the form of reduced cost
- The proposed system will give the minute information, as a result the performance is improved which in turn may be expected to provide increased profits.
- This feasibility checks whether the system can be developed with the available funds. The Hospital Management System does not require enormous amount of money to be developed.

4. Data Flow Diagrams



5. Entity Relationship Diagram



6. Data Tables

1. Login Table:-

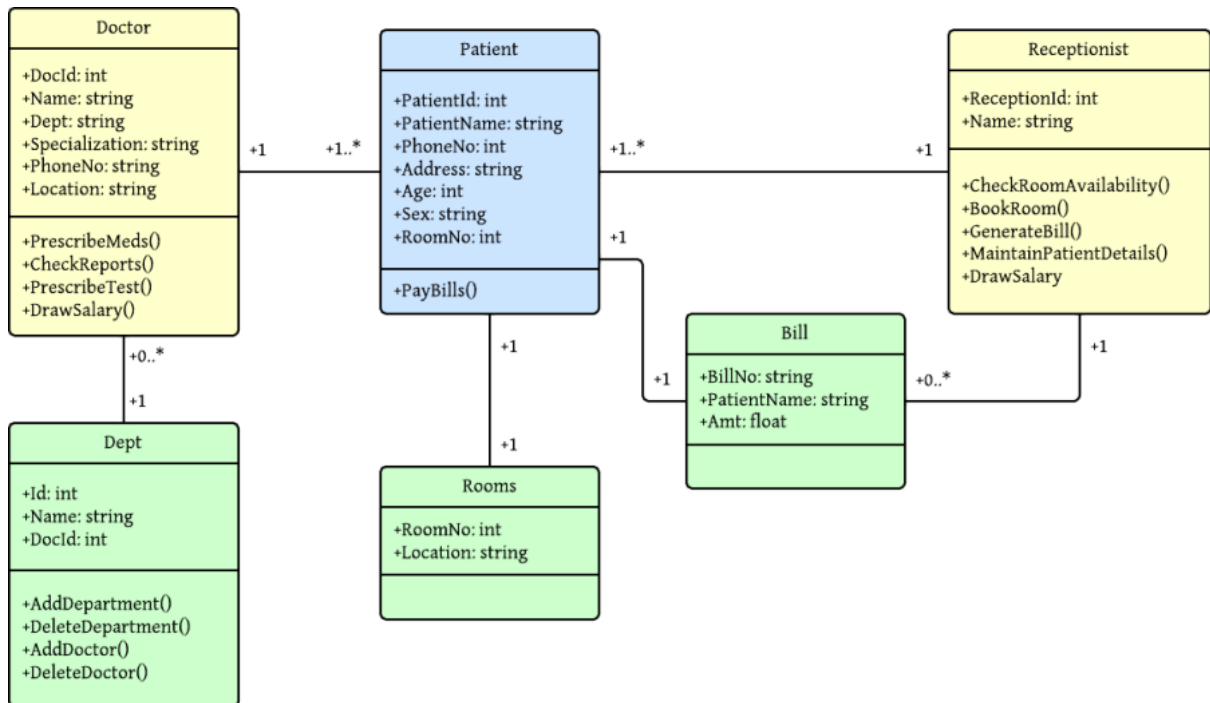
Field Name	Data Type	Description
User_Name	Text	
Password	Text	
Hint_Question	Text	
Hint_Answer	Text	
User_Type	Text	

2. Patient Detail Table:-

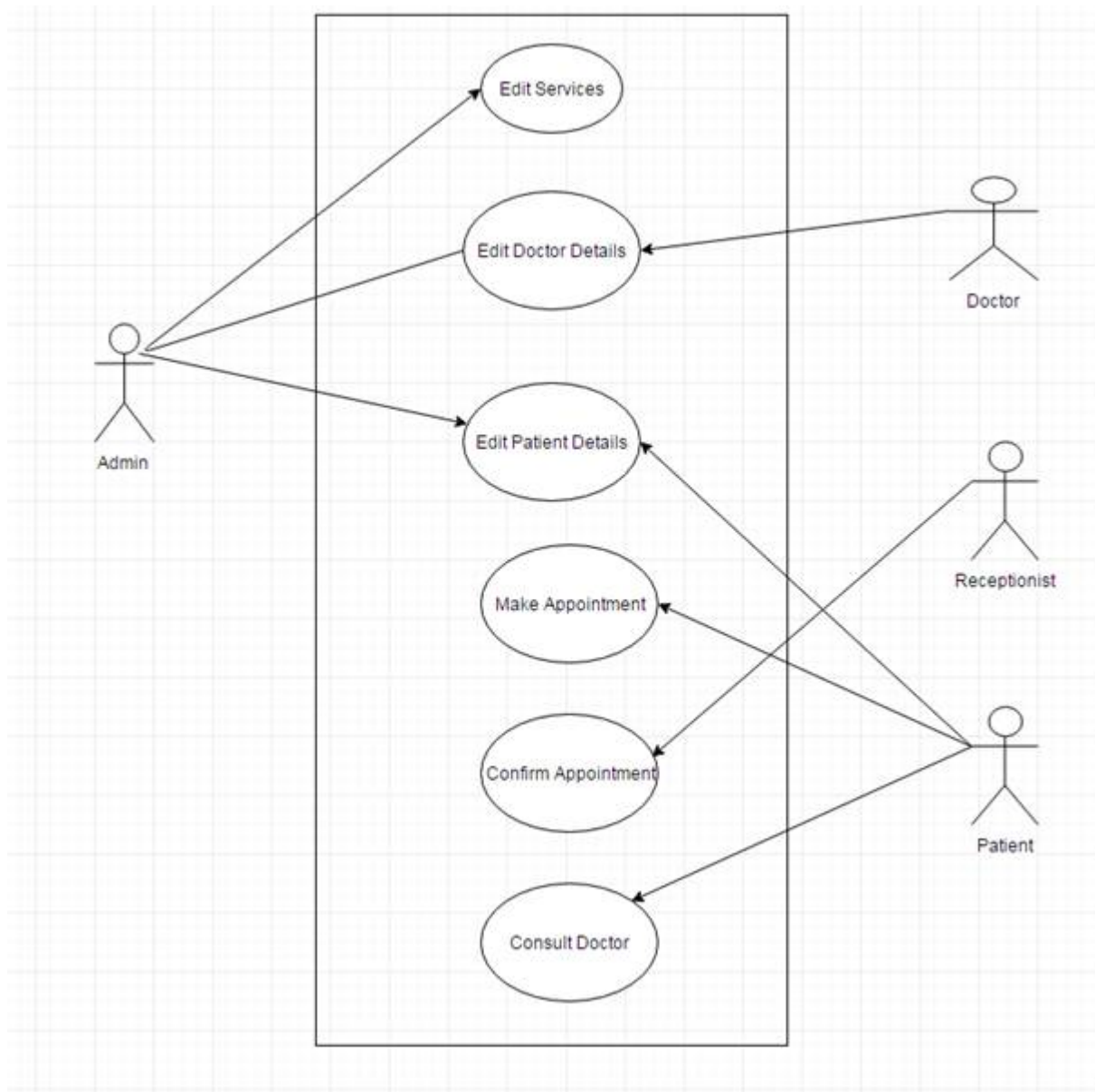
Field Name	Data Type	Description
Registration_No	Text	
Registration_Date	Date/Time	
Name	Text	
Address	Text	
City	Text	
TelePhone_Mobile_No	Text	
Marital_Status	Text	
Religion	Text	
Gender	Text	
Father_Husband_Name	Text	

7) Design

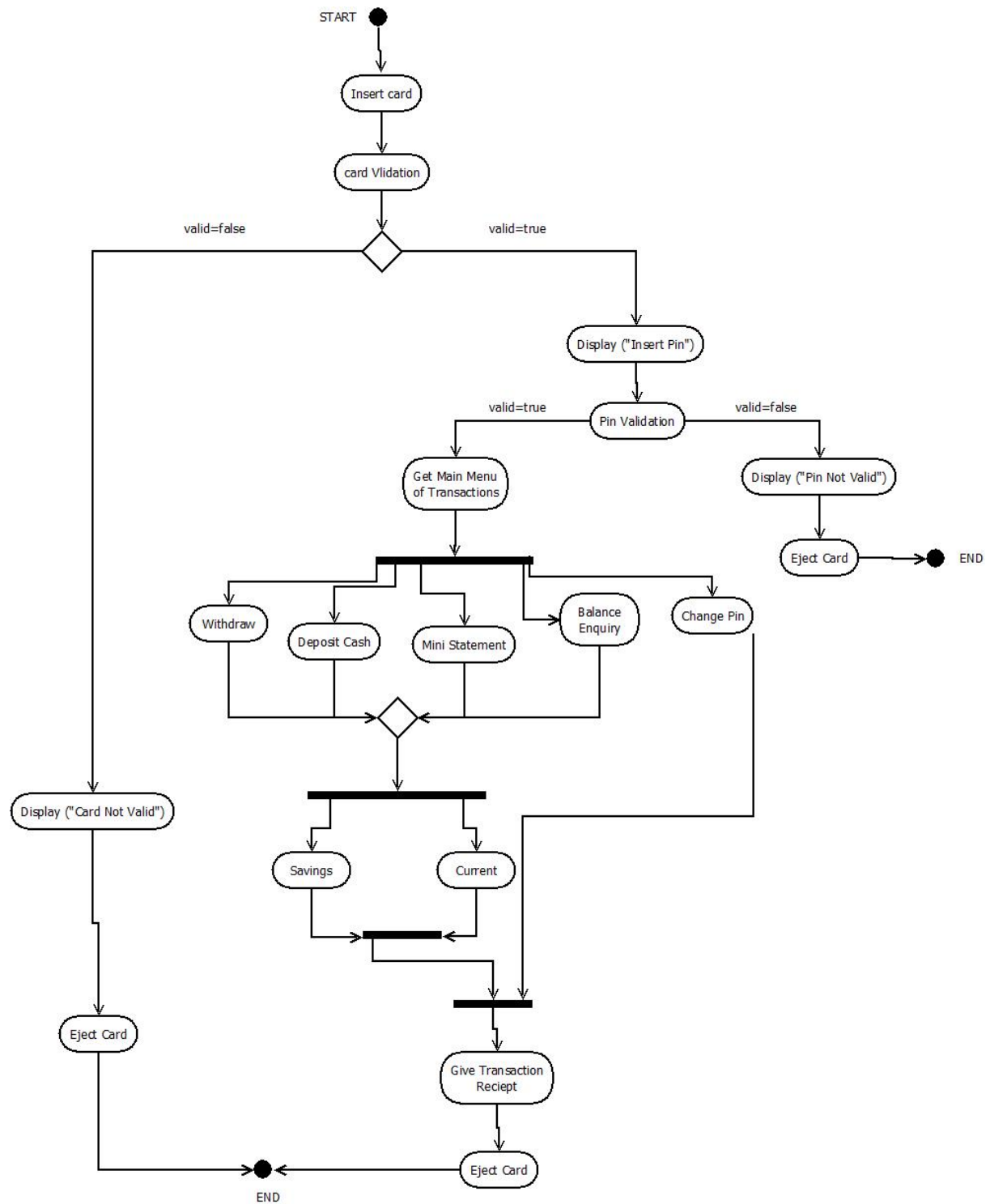
Class Diagram



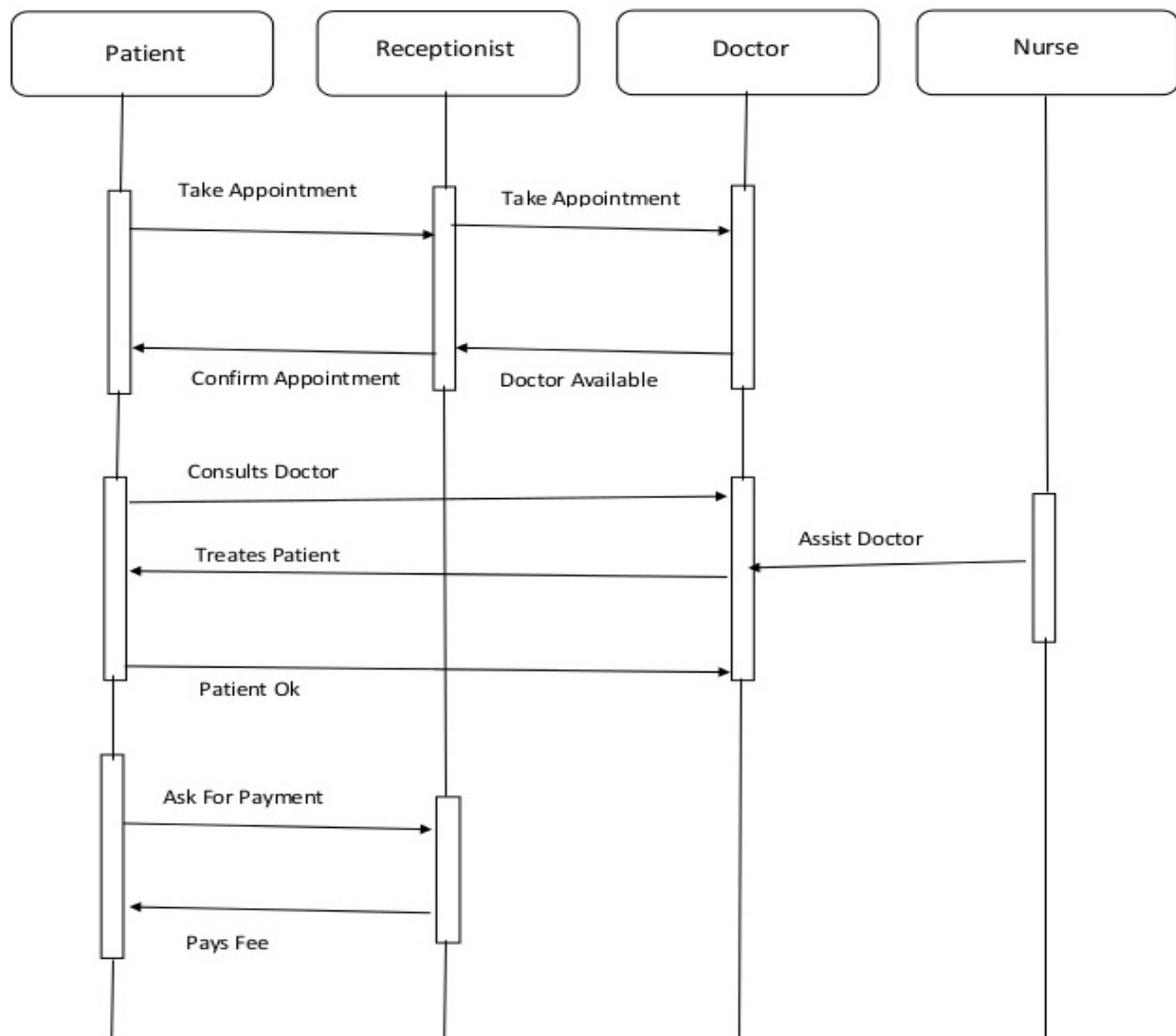
Use case Diagram



Activity Diagram



Sequence Diagram



8. Conclusion

The project Hospital Management System (HMS) is for computerizing the working in a hospital. The software takes care of all the requirements of an average hospital and is capable to provide easy and effective storage of information related to patients that come up to the hospital. It generates test reports; provide prescription details including various tests, diet advice, and medicines prescribed to patient and doctor. It also provides injection details and billing facility on the basis of patient's status whether it is an indoor or outdoor patient. The system also provides the facility of backup as per the requirement.