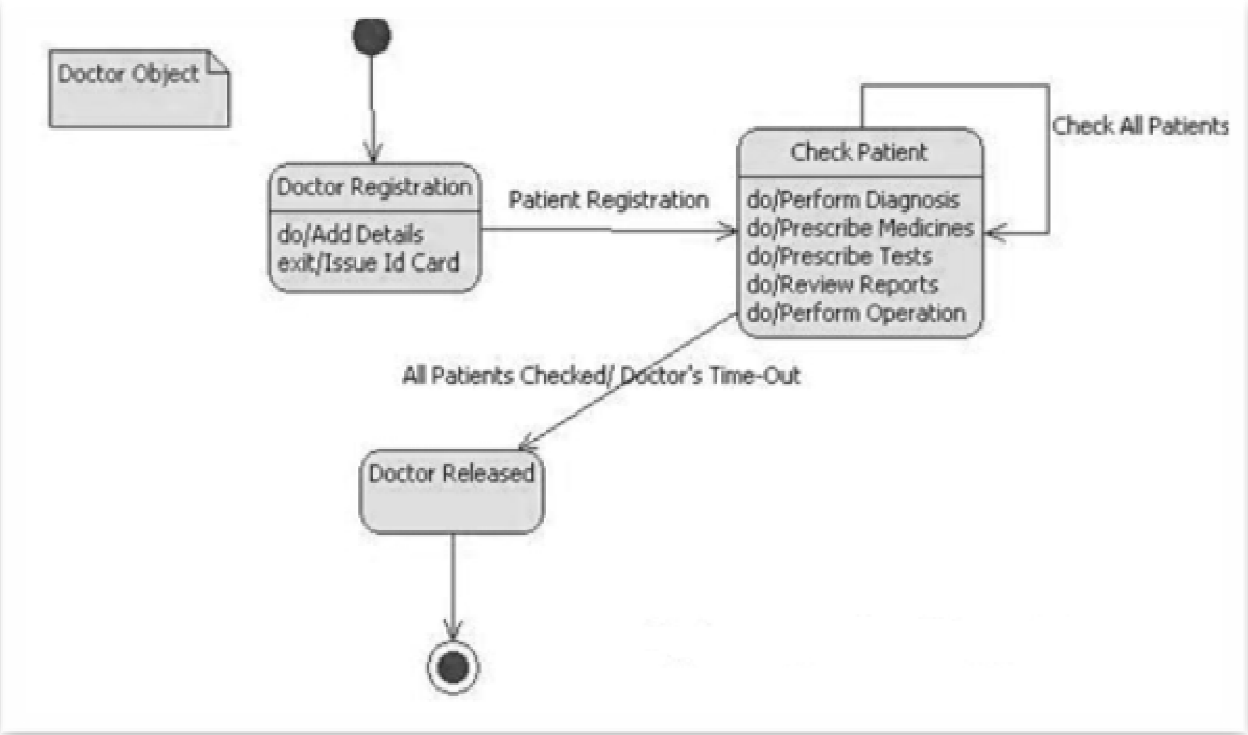
Software Design

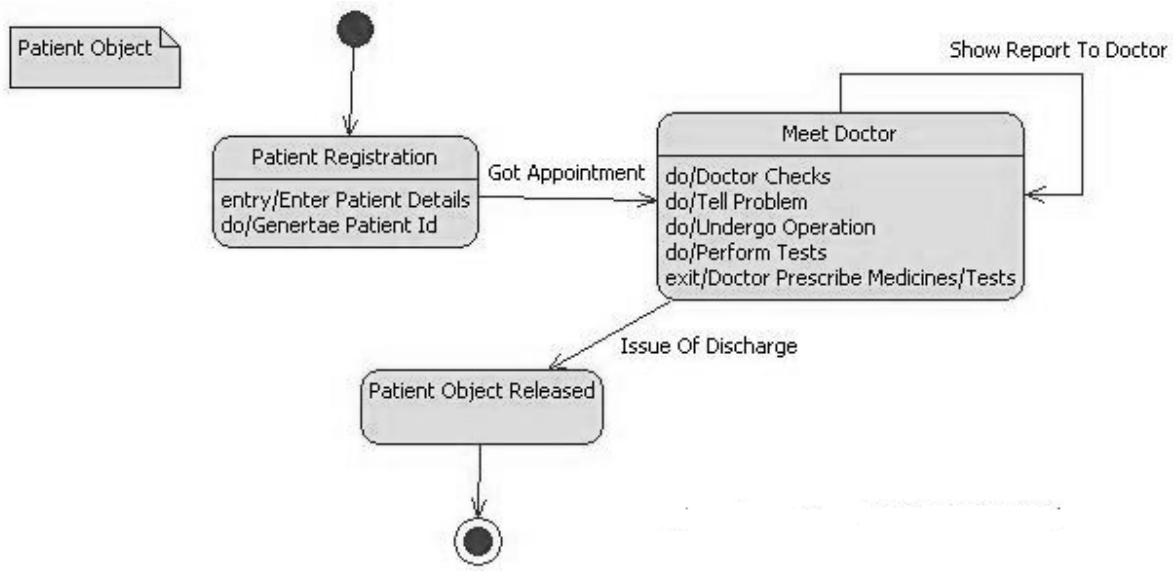
1. UML Diagram

State Diagram

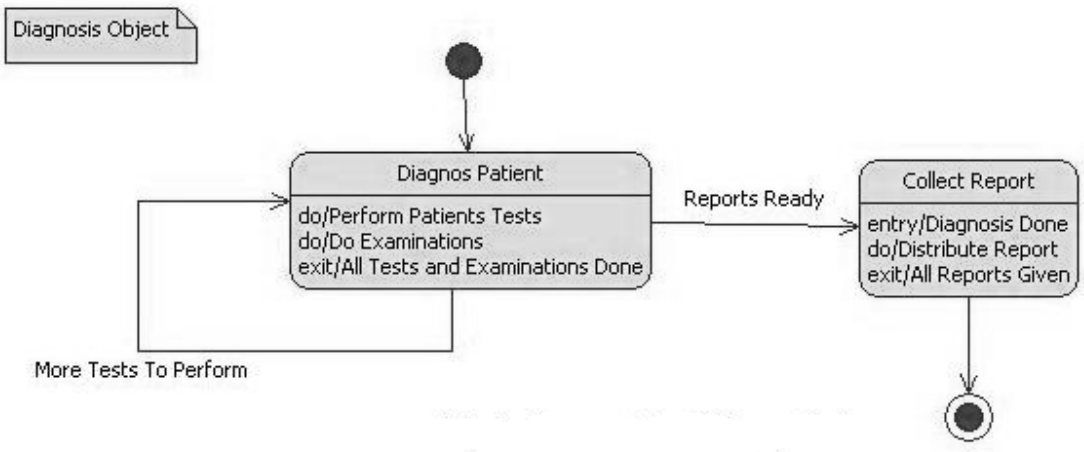
State Diagram for Doctor Object:



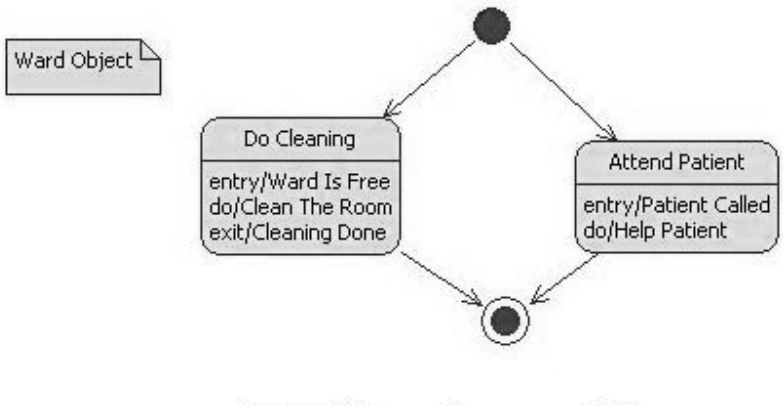
State Diagram For Patient Object:



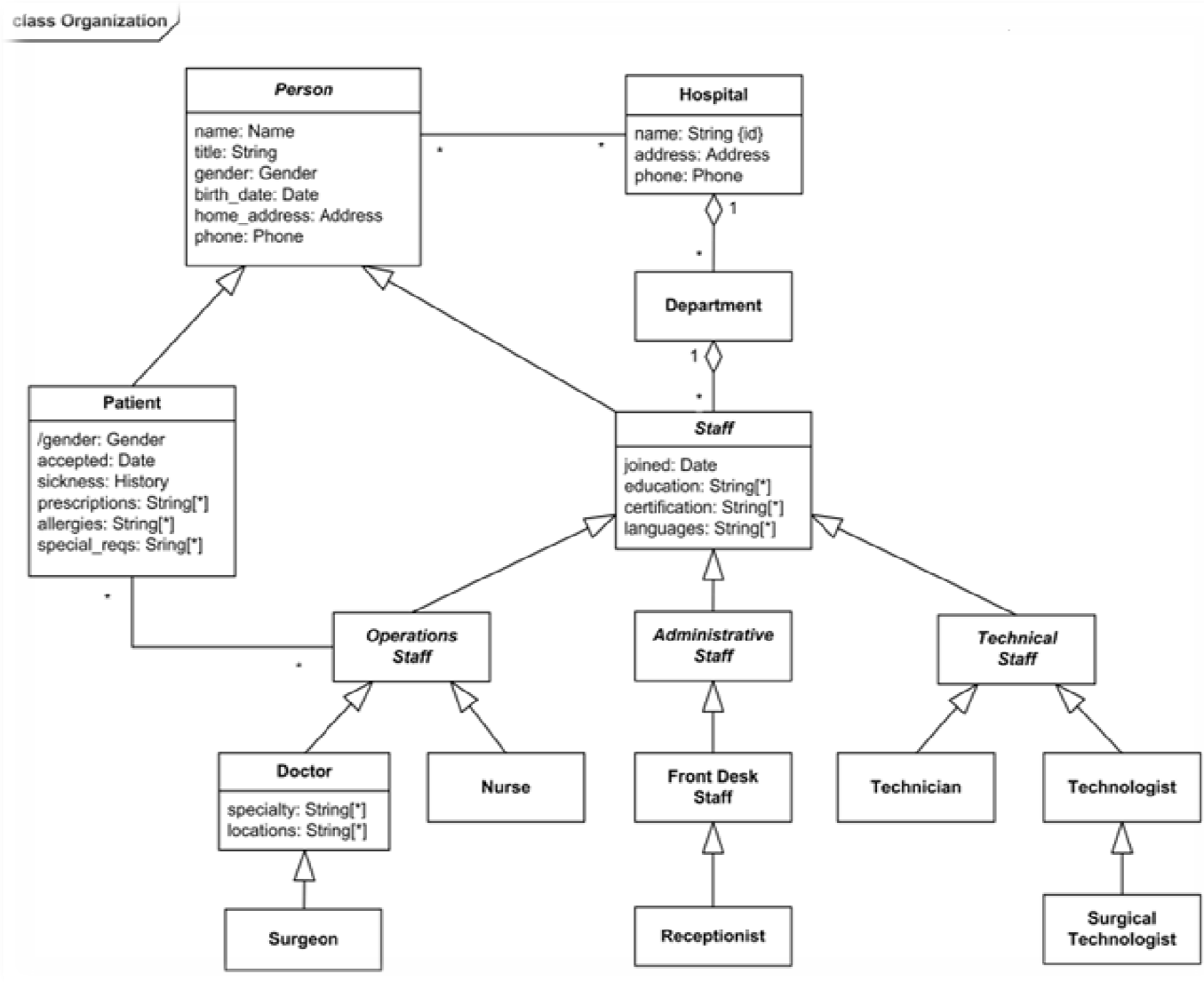
State Diagram For Diagnosis Object:



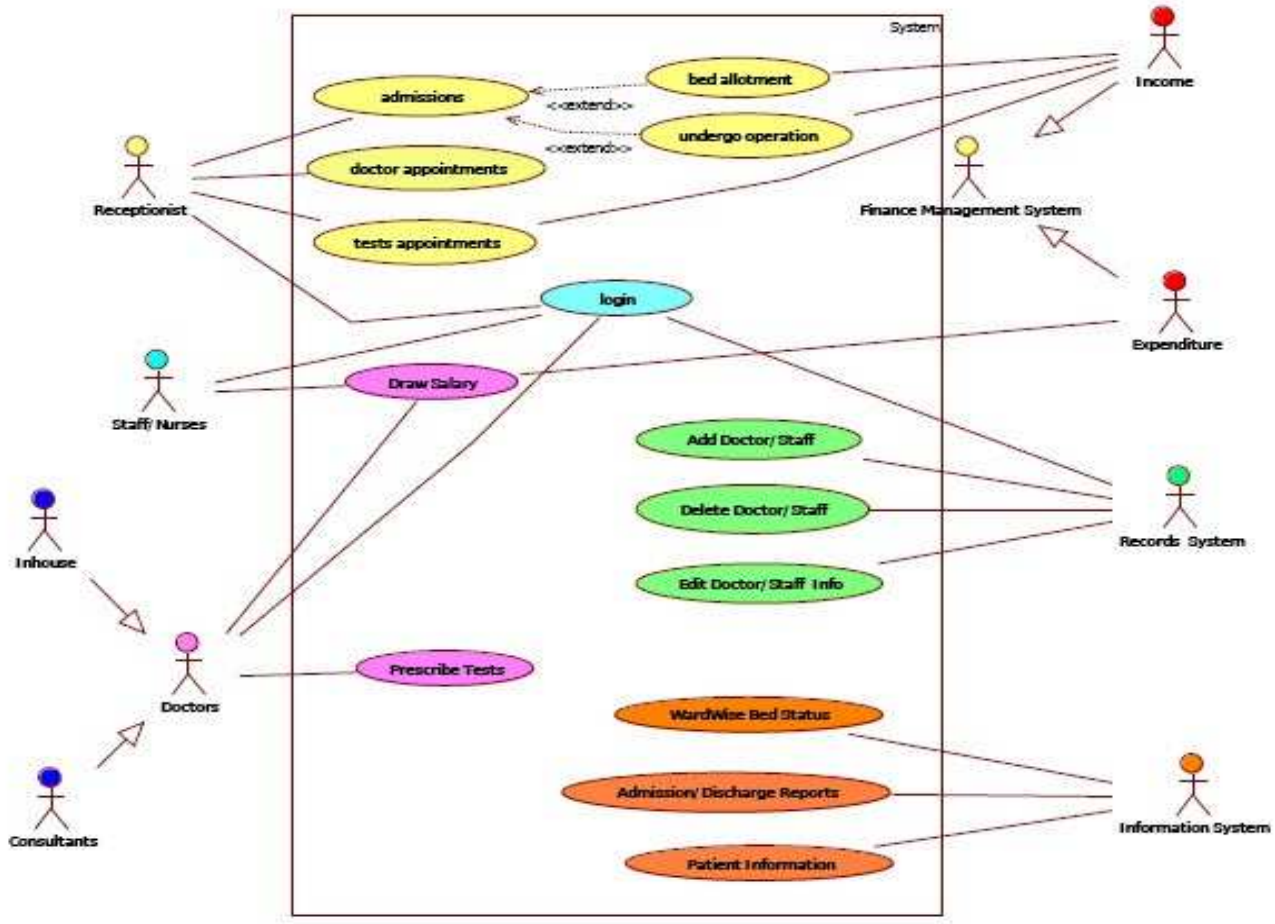
State Diagram For Ward Object:



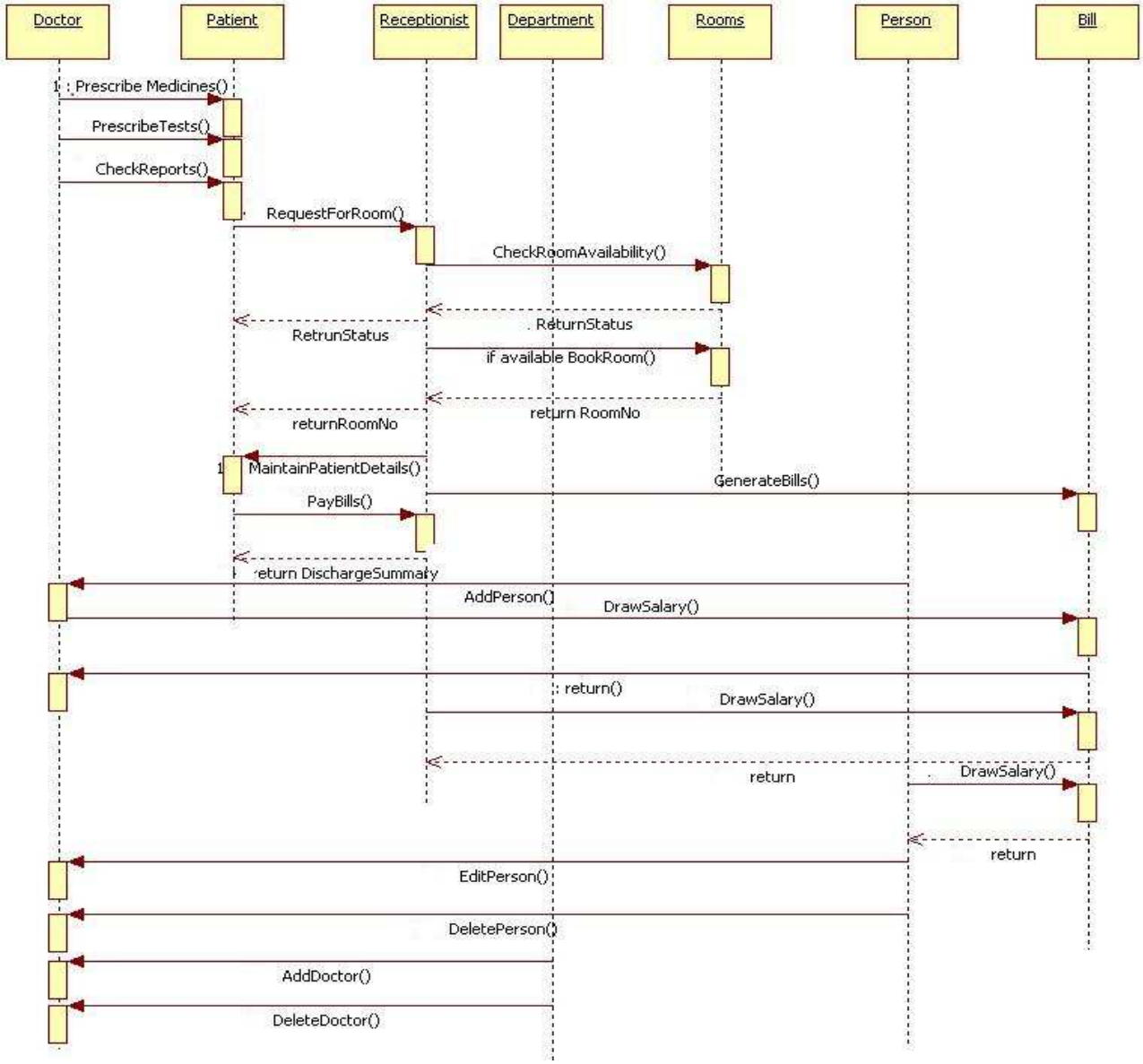
Class Diagram



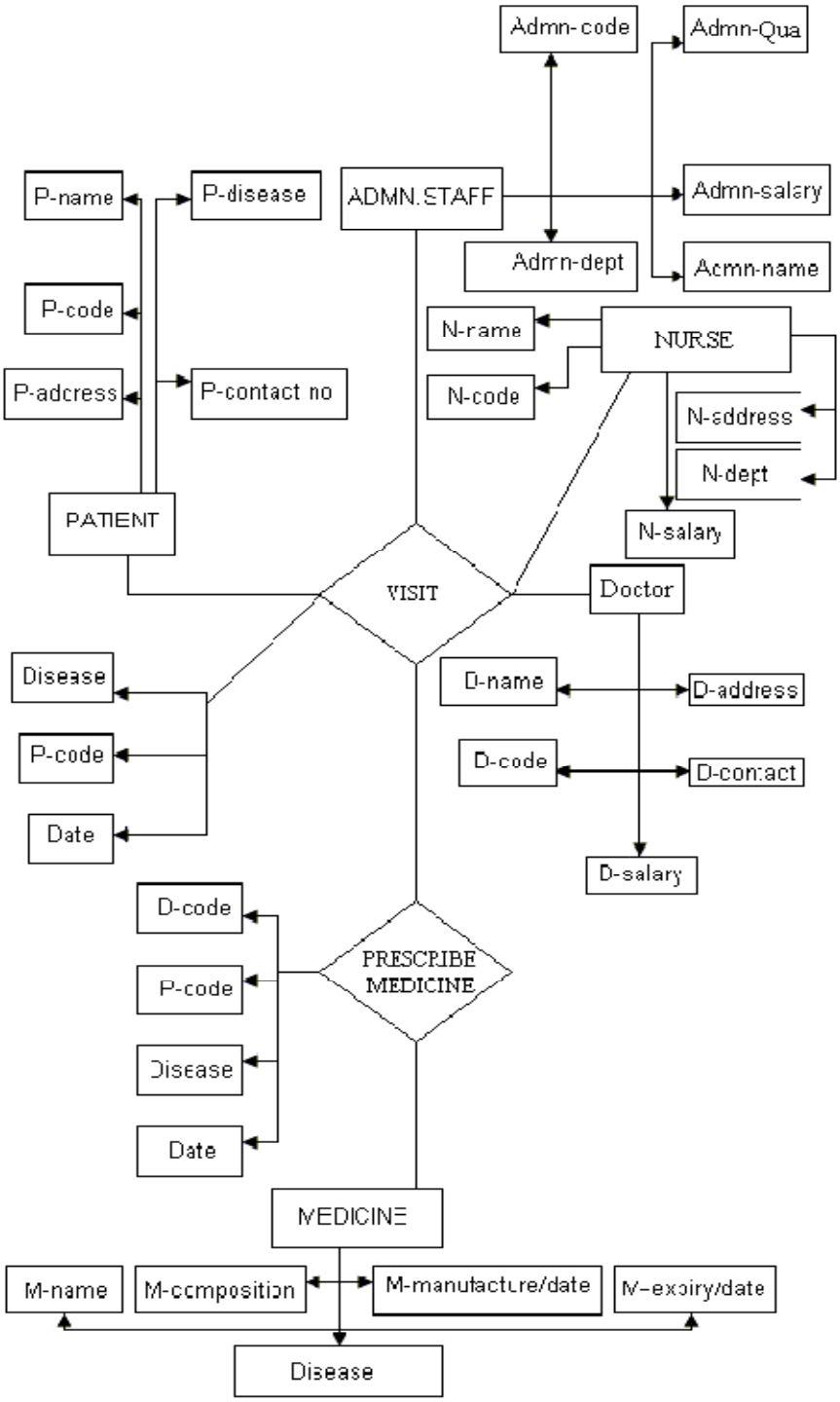
Use case Diagram



Sequence Diagram



E-R DIAGRAM


Admn-code
Admn-Qua
P-name
P-disease
ADMN.STAFF
Admn-salary
Admn-dept
Admn-name
P-code
N-name
NURSE
P-address
P-contact no
N-code
N-address
N-dept
PATIENT
N-salary
VISIT
Doctor
Disease
D-name
D-address
P-code
D-code
D-contact
Date
D-salary
D-code
PRESCRIBE
MEDICINE
P-code
Disease
Date
MEDICINE
M-name
M-composition
M-manufacture/date
M-expiry/date
Disease

Non- functional Requirement

Performance

- ✓ **Response Time :-**
  The system shall give responses in 1 second after checking the patients information.

- ✓ **Capacity :-**
  The System must support 1000 people at a time.

- ✓ **User-interface :-**
  The user-interface screen shall respond within 5 seconds.

- ✓ **Conformity:-**
  The systems must conform to the Microsoft Accessibility

Security

- ✓ **Patient Identification:-**
  The system requires the patient to identify himself /herself using PHN

- ✓ **Logon ID :-**
  Any user who uses the system shall have a Logon ID and Password.

- ✓ **Modification**
  Any modification (insert, delete, update) for the Database shall be synchronized and only done by the administrator in the ward.

- ✓ **Front Desk staff Rights:-**
  Front Desk staff shall be able to view all information in HPIMS, add new patients to HPIMS but shall not be able to modify any information in it.

- ✓ **Administrators' Rights:-**
  Administrators shall be able to view and modify all information in HPIMS.

Availability

- ✓ The system shall be available all the time.

Safety

- ✓ Humans are error-prone, but the negative effects of common errors should be limited. E.g., users should realize that a given command will delete data, and be asked to confirm their intent or have the option to undo.

Software Quality

- ✓ Good quality of the framework produces robust, bug free software which contains all necessary requirements for customer satisfaction.

Reusability

- ✓ Is part of the code going to be used elsewhere produces simple and independent code modules that can be reused

Maintainability

- ✓ **Back Up**
  The system shall provide the capability to back-up the Data.
- ✓ **Errors**
  The system shall keep a log of all the errors.

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