HOSPITAL MANAGEMENT SYSTEM

INTRODUCTION

- Our project Online Hospital Management System aims to develop a software that covers some aspects of management and operations of hospital.
- It enables healthcare providers to improve operational effectiveness, reduce costs, reduce medical errors, reduce time consumption and enhance delivery of quality of care.
- This project hope to implement all the activities of the hospital in a computerized automated way to fasten the performance and to reduce manual effort.
- Our project aims to include various modules like patient module, doctor module, appointment module, pharmacy module, laboratory module and a blood bank.

PATIENT

- This module aims at managing the patient flow in a hospital.
- It mainly handles with patient registration, management of patient data and maintains the medical history of the patient.
- It includes 5 tabs : Add patient, Add consultation info, Prescription, Patient history, Update/Delete patient.
- Data is stored in 2 tables :
    - ➔ Addpatient : Primary key is Patient ID.
    - ➔ Addconsultationinfo : Primary key is patient ID, date and time.

1. **Add New Patient :**
   - Includes a registration form for a new patient.
   - Generates a unique patient ID for each patient automatically.
2. **Add Consultation Info :**
   - The details of consultation such as disease, test, medicine etc of a patient can be added.
   - General details of the patient can be obtained by searching using the patient ID.
3. **Prescription:**
   - Generates the prescription of a patient by providing the date and time.
4. **Patient History :**
   - Maintains history of all the patients.
   - Involves 2 tabs :
     - ➔ **Load Patient History** : Loads the history of all the patients in the order of patient ID.
     - ➔ **Patient History of an individual** : Generates history of a patient for each visit.
5. **Update/ Delete patient:**
   - The patient details can be modified using update button.
   - Patient can be deleted using a delete button.

DOCTOR

- This module facilitates all the requirements wanted by a doctor.
- Consist of 2 sections:
  - **Update status :**
    - This section updates the status of each doctor (whether he is on leave or not).
  - **Doctor record:**
    - Keeps the record of doctor, timings, day on which he is available etc.
    - Involves 2 tabs : Load and Load by date
      - **Load :** Load the data of all the doctors for all the dates.
      - **Load by Date :** Load the data and status of all the doctors for a particular date.
- Consist 2 tables Dview and doctor.

APPOINTMENT

- This module facilitates the scheduling the appointments of patients with doctors.
- Data is stored in the table appointment with primary key patient_id.
- It involves 3 tabs:
  - take appointment
  - view appointment(by date)
  - view appointment(by doctor).

- **Take appointment:**
  - Patient can take prior appointment to a doctor by choosing suitable time and date using the patient ID
  - Each doctor has 4 slots in each 30 minutes of his consultation time.
- **View appointment(By date) :**
  - Involves 2 tabs: load and load by date
    - **Load** : Loads all the appointments given in the order of date
    - **Load by date** : Loads all the appointments given in a particular date.
- **View appointment (By Doctor) :**
  - Can view the appointments of a particular doctor by selecting doctor name and department.
  - It includes 2 tabs : View by date and Future appointments.
    - **View by date** : Load the data of a doctor for a particular date.
    - **Future appointments** : Loads the future appointments starting from the provided date.

PHARMACY

- This module deals with the stocking and selling of different medicines.
- The datas are stored in tables bill and medicine in database..
- It consist of 3 sections :
  - **Availability**:This section gives us information about all the medicines available in stock.
    - **Load:**It provides us the facility to load the complete list of medicines available in the stock.
    - **Search:**It allows us to search medicine availability by its name.
  - **Update**: This page is mainly for stock updation.In this we store m_id(primary key),name,price,stock and date.Medicines are identified using its m_id.
  - **Billing**: This sections deals with the medicine billing process.Medicines are referred with name and the final bill is displayed.In parallel real time updation of stock also happen.

LABORATORY

- This module provides details of all the tests and activities undergone in the hospital.
- This module further divided into 5 sections:
  - **Lab records**
    Consist record of patients who has undertaken tests from the laboratory which include the test name,patient id etc.
  - **Test entry**
    Provide facility to enter the test details of the person.
  - **Result entry**
    Provide facility to add the result of the person after the test has been taken and the results are ready.
  - **Lab Reports**
    This helps to print the final lab report of patient by entering the patient Id.
  - **Test**
    Consist of all tests taken in the lab with the price of each result.
    There is also option to update and delete the list.

- Three tables are used :
  - Testentry:Primary key -PatientId
  - resultentry :Primary key -PatientId
  - tests:Primary key -testtype.
- Test entry stores the test entry records.
- Result entry stores the results of test undertaken.
- Tests contains the test and amount for each test.

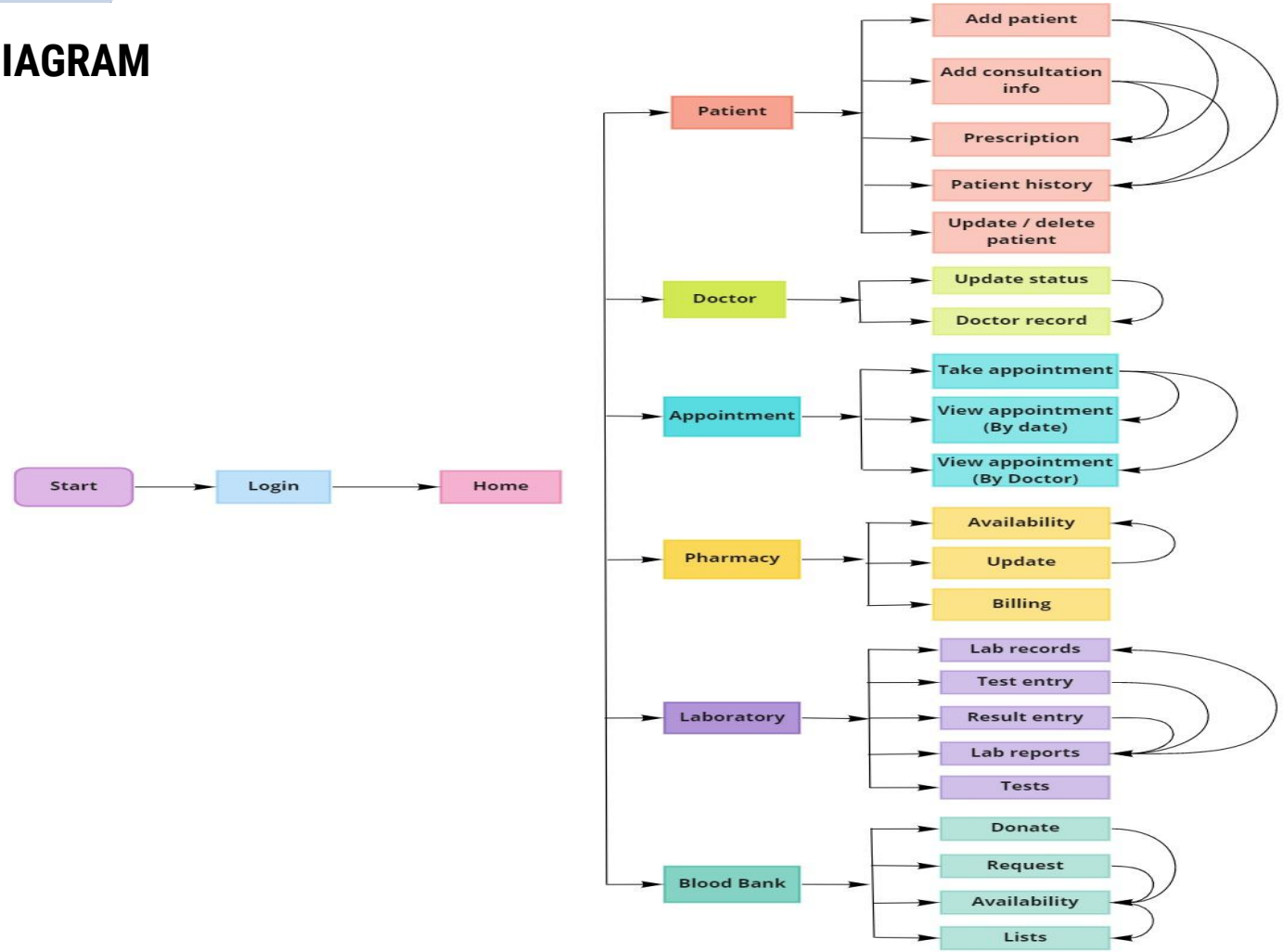
BLOOD BANK

- Blood bank is a necessary part of every hospital for rapid response to urgent requests for blood components.
- This module mainly gives the information about blood stock in the hospital.
- The datas are stored in tables donner,request and blood bank in database.
- The module has 4 sections:
  - **Donate:**It is actually a form that contain the details of the donner like his group,age,name,address,id,contact,units,and donation date.
  - **Request:**It contains the request form for those who are in need.The name of the person,age,id,group,address,units of blood,cause,scheme are recorded.

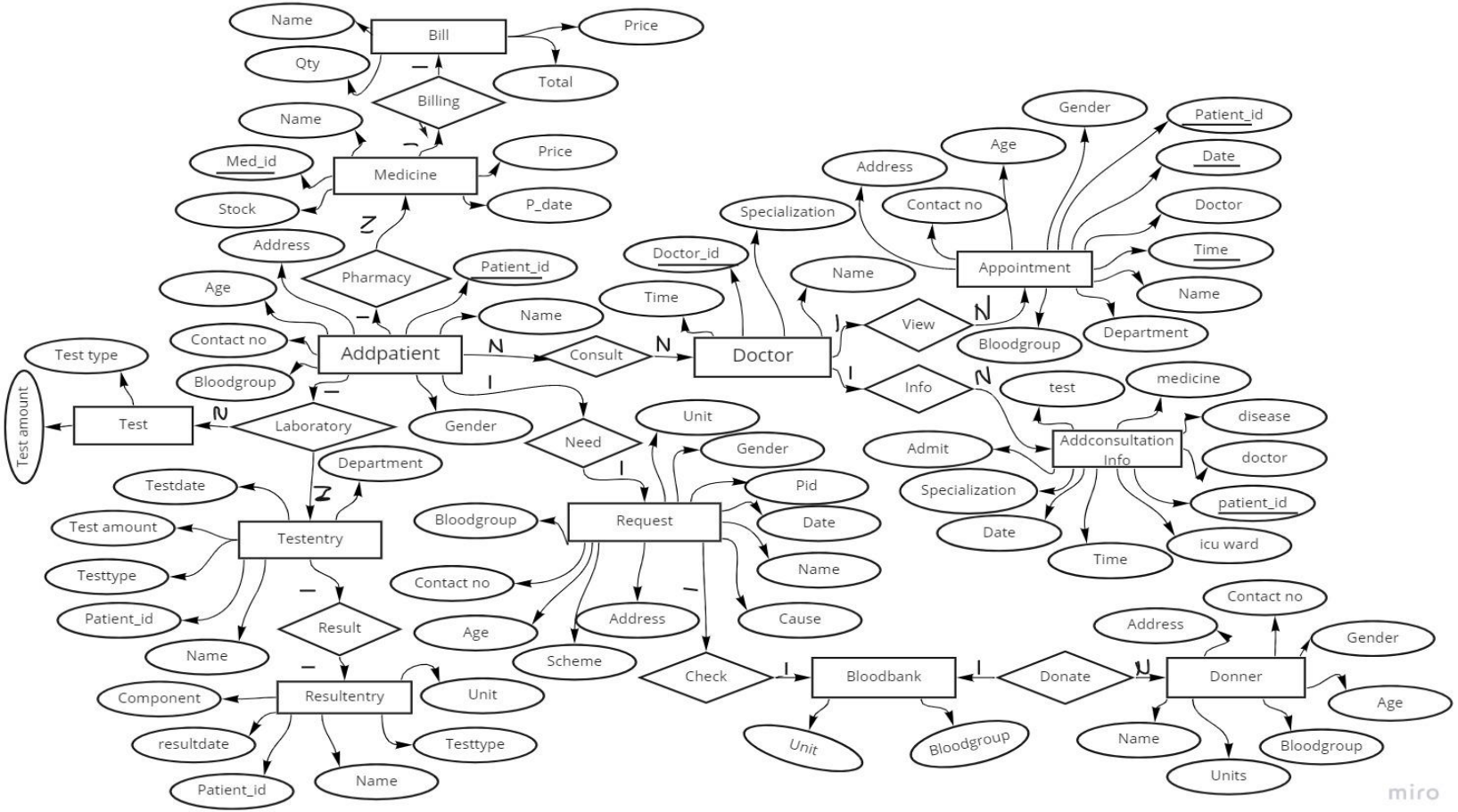
- **Availability**:It shows the availability of units of blood in each blood group.It helps us to check if blood is available in bank.
- **List:**It shows the complete list of donner or of requested one.
  - The admin can select donner list or request list by means of dropdown.
  - **View by group:**The admin can see the donner or request list by searching for a specified group.
  - **View by name:**The admin see the donner or request list by using the name of a specified person.

USE CASE DIAGRAM

DATA FLOW DIAGRAM



ER DIAGRAM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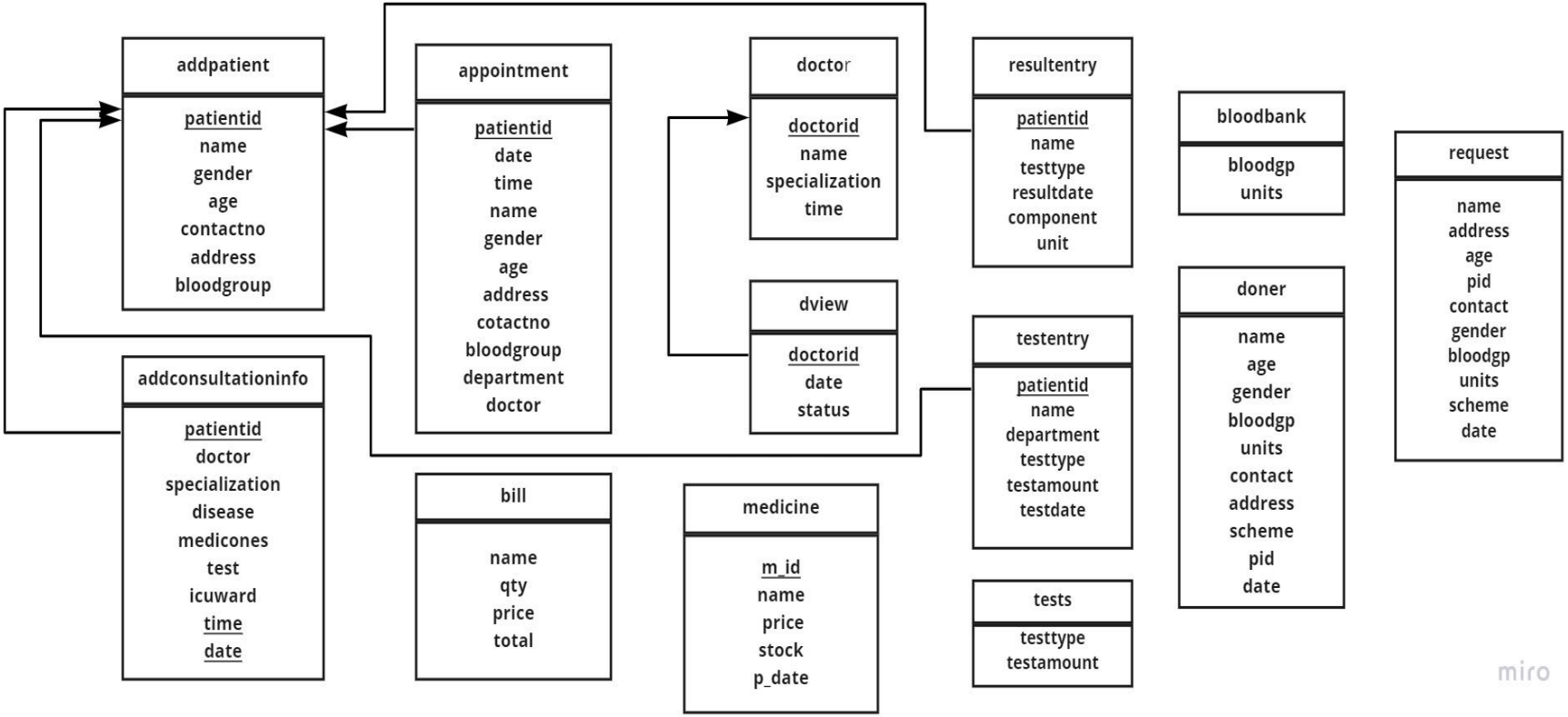
DATABASE SCHEMA



CONCLUSION

- By the end of the project we tried to develop a hospital management system which mainly deals with reception and pharmacy area enquiries of the people like test reports,medicines,doctor timing,appointments,blood bank etc.
- We have used eclipse IDE and Java for our project.
- We store the information of patients,doctors,medicine,test details etc in a database(MySQL).
- Hence to create software that would help the needful.

THANK YOU