HOSPITAL MANAGEMENT SYSTEM

VCARE

CONTENTS

INTRODUCTION

Our project Online Hospital Management System aims to develop a software that covers some aspects of management and operations of hospitals.

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 hopes 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.

ABSTRACT

Hospitals or rather healthcare systems form a major part of human life. Hence the importance of an efficient system to manage all the processes in a hospital cannot be undermined. This motivated us, a student group aimed towards the betterment of society, to design a software system that would easily integrate the different departments in a hospital.

The Online Hospital Management System project puts forward a simple but effective interface which can be easily familiarised by anyone new to the system. The system helps hospitals in completely automating the procedures of a hospital within the constraints of the virtual world, thus reducing both the errors and manual labour of humans significantly.

The system contains various modules. The system interface is designed to support mainly two groups of users which are the doctors and the patients. The various modules covered by the project includes patient, doctor, appointment, pharmacy, laboratory and blood bank. The patient module deals with collecting essential information from patients including contact details, patient history, prescription details, provision to update existing information or delete patient details. The doctor module handles availability of the doctors in a hospital. It contains a section for the doctors to update their schedule regarding their duty leaves. After the doctors have updated their schedule, the data of all the doctors available in total and for a particular day is available. The appointment module allows the user to take new appointments, and view the appointment both by date and doctor

opted. The pharmacy module deals with the stock of medicines where the user can search for any medicine, check the stocks for availability and update the list with new medicines when necessary. The lab module covers everything from test entry to lab record.

SYSTEM REQUIREMENTS

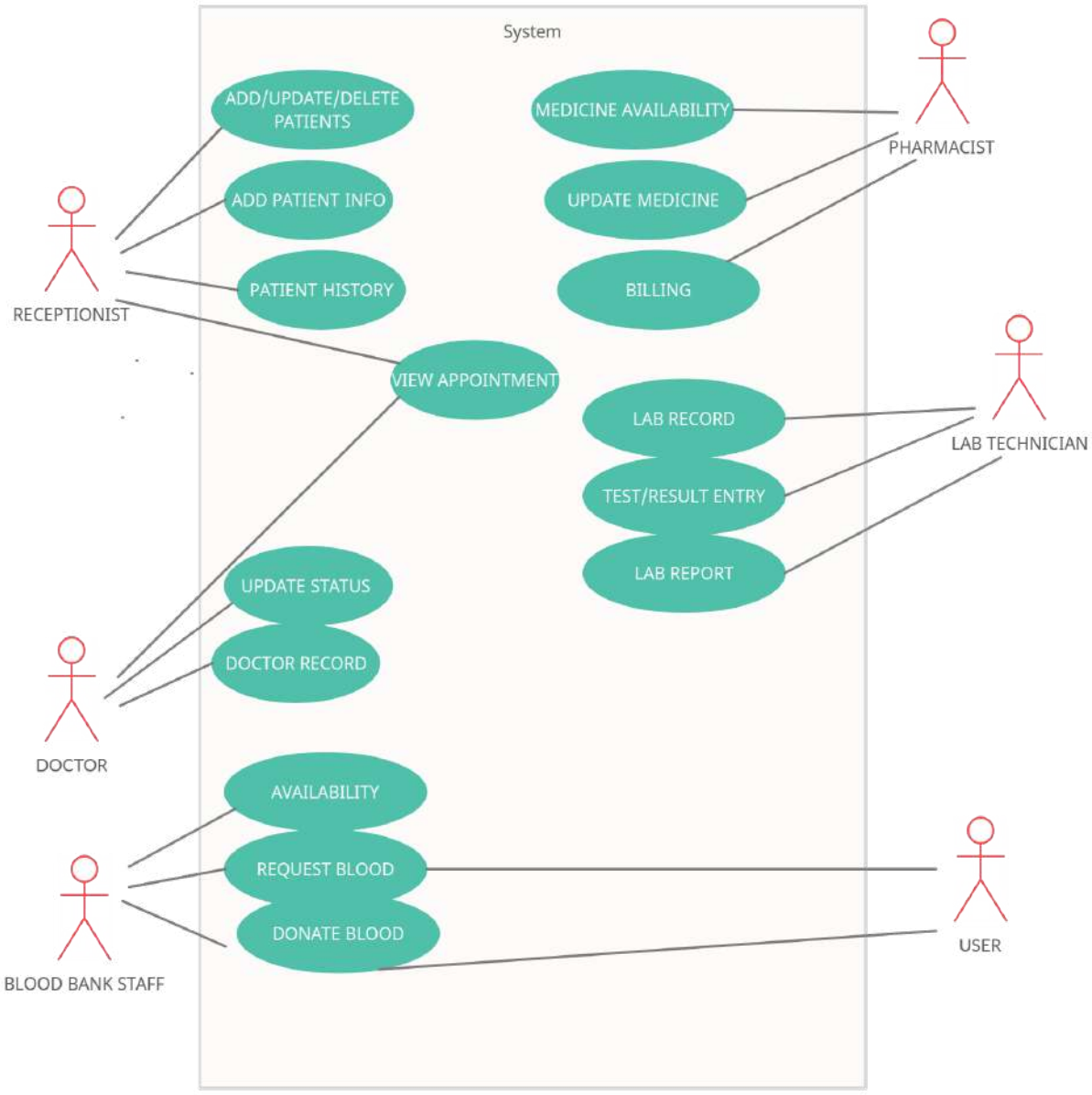
Hardware configurations :

Requirements	Value
Processor	Core i3 or higher
Speed	2 GHz or higher
RAM	512 MB or higher
Hard Disk	20 GB or higher

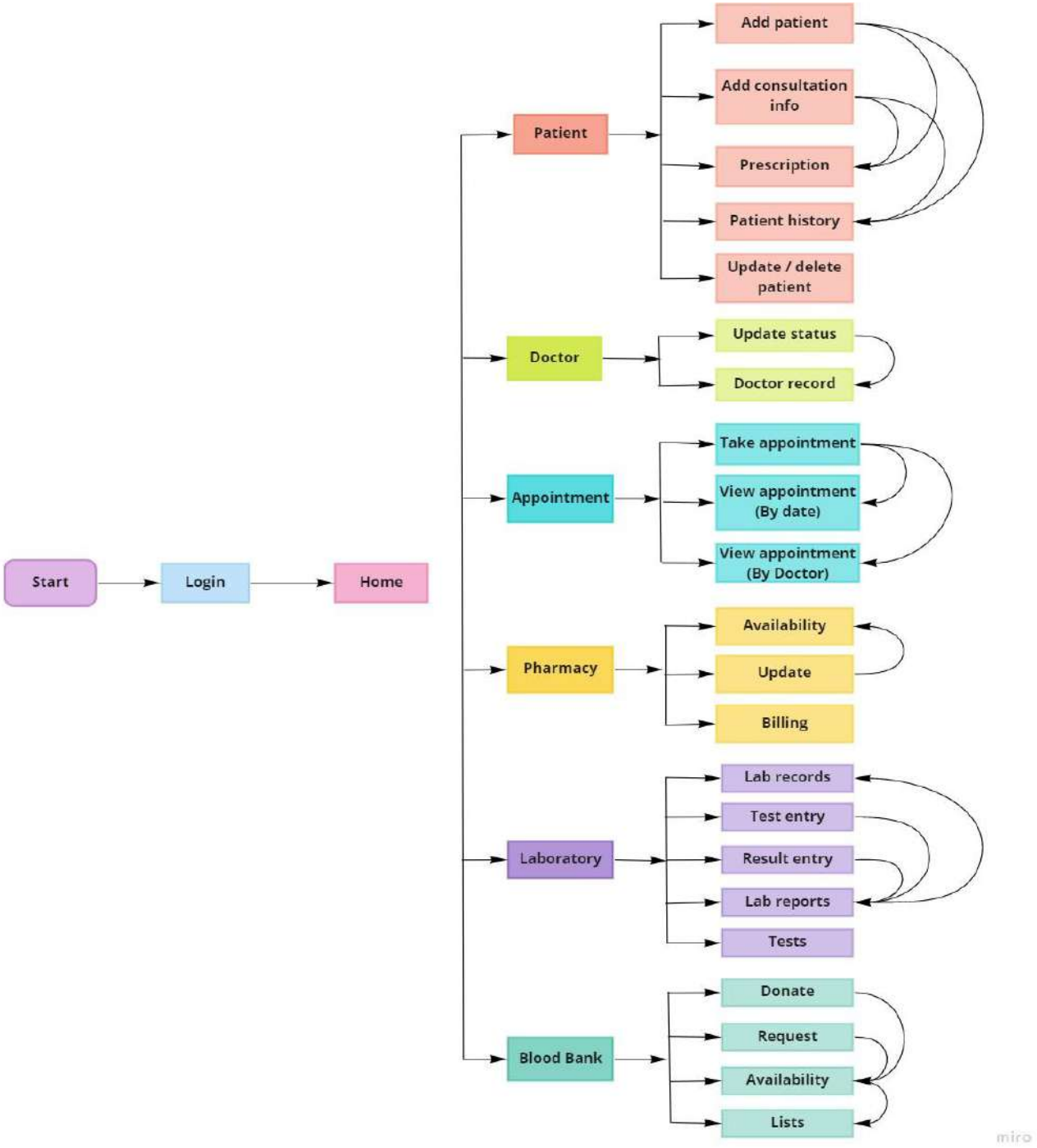
Software Requirements :

Requirements	Value
Operating System	Windows 7/NT/2000 or higher, Mac, Linux.
System Architecture	Intel(x64), AMD64, Intel EM64T
Developing Software	Eclipse IDE Java
Developing Tool	JDK 7.0
Database	MySQL
Front End	Java, JSP

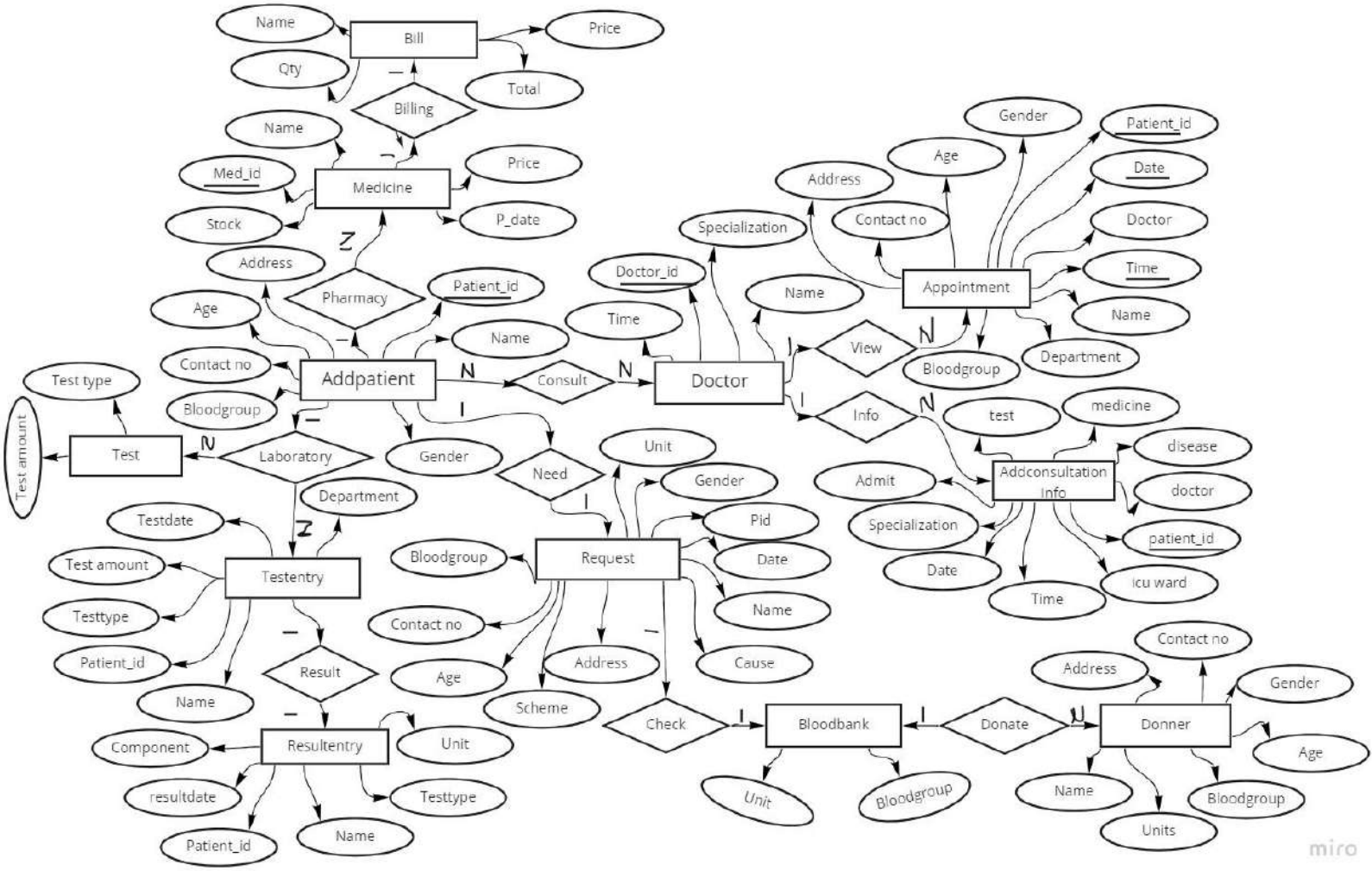
USE CASE DIAGRAM



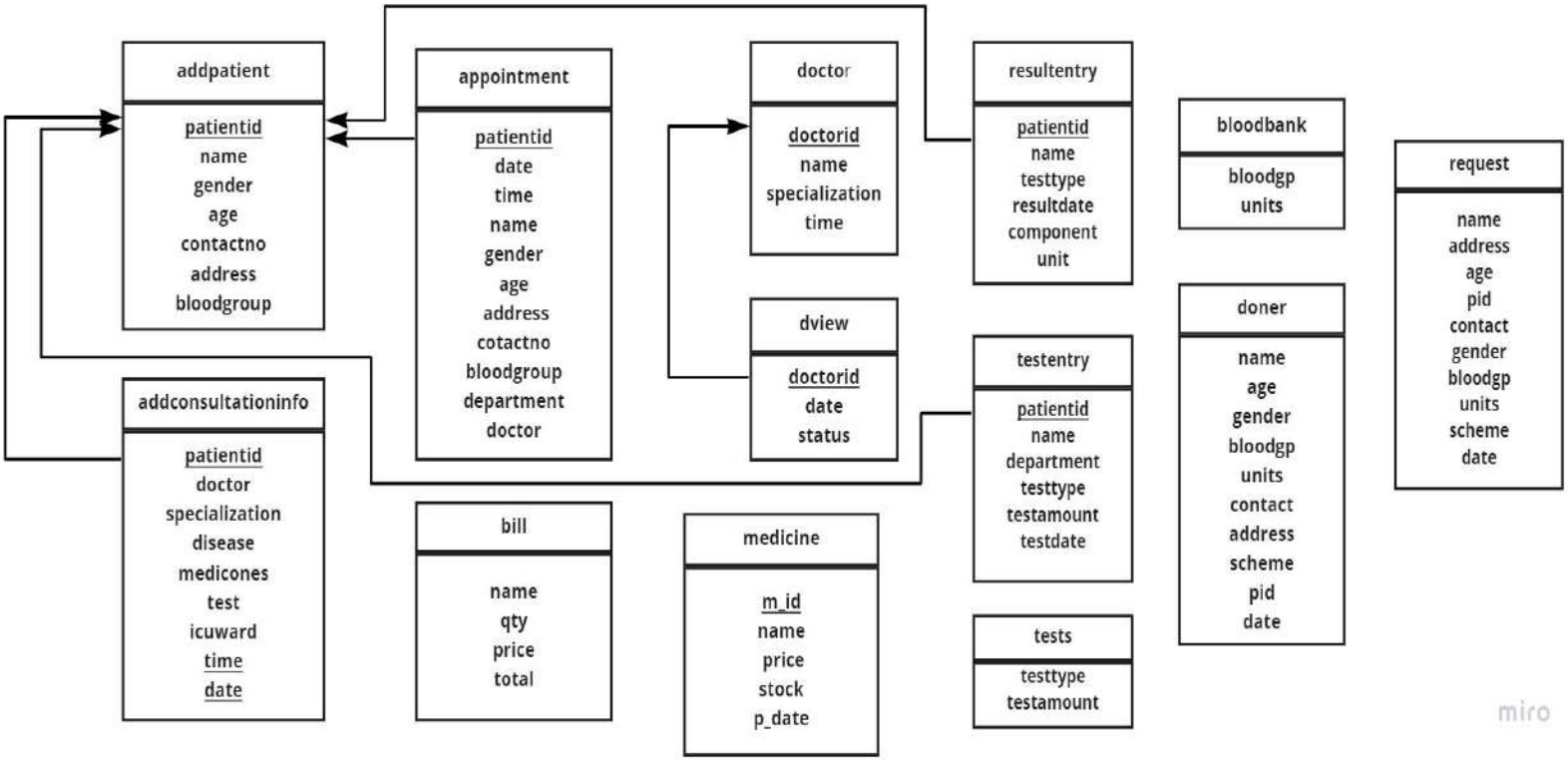
DATA FLOW DIAGRAM



ER DIAGRAM


Name
Bill
Price
Qty
Total
Billing
Name
Price
Med_id
Medicine
Stock
P_date
Address
Pharmacy
Patient_id
Age
Name
Contact no
Addpatient
Bloodgroup
Test type
Test amount
Test
Laboratory
Gender
Department
Testdate
Test amount
Testentry
Testtype
Patient_id
Result
Name
Component
Resultentry
Unit
resultdate
Testtype
Patient_id
Name
Doctor_id
Specialization
Time
Doctor
Consult
Need
Unit
Gender
Pid
Bloodgroup
Request
Date
Name
Contact no
Address
Age
Cause
Scheme
Check
Bloodbank
Unit
Bloodgroup
Gender
Patient_id
Age
Date
Address
Contact no
Doctor
Specialization
Time
Name
Appointment
Name
View
Department
Bloodgroup
Info
test
medicine
disease
Admit
Addconsultation Info
doctor
Specialization
patient_id
Date
icu ward
Time
Donate
Contact no
Address
Gender
Donner
Age
Name
Bloodgroup
Units
miro

DATABASE SCHEMA



Add patient :

Attributes	Datatype	Constraints
patientid	Int	Not null, primary key
name	varchar(100)	

gender	varchar(10)	
age	int	
contactno	varchar(10)	
address	varchar(200)	
bloodgroup	varchar(50)	

Add consultation info :

Attribute	Datatype	Constraints
patientid	int	not null, primary key, foreign key
doctor	varchar(100)	
specialization	varchar(100)	
disease	varchar(100)	
medicines	varchar(100)	
test	varchar(100)	
admit	varchar(100)	
icuward	varchar(100)	
time	varchar(100)	not null, primary key
date	varchar(100)	not null, primary key

doctor :

Attributes	Datatype	Constraints
doctorid	int	Not null, primary key
name	varchar	
specialization	varchar	
time	varchar	

_____Dview :

Attributes	Datatype	Constraints
doctorid	int	Not null, primary key, foreignkey
date	varchar	Not null, primary key
status	varchar	

Appointment :

Attributes	Datatype	Constraints
patientid	varchar	Not null, primary key, foreignkey
date	varchar	
time	varchar	

name	varchar	
gender	varchar	
age	int	
address	varchar	
contactno	varchar	
bloodgroup	varchar	
department	varchar	
doctor	varchar	

Bill :

Attributes	Datatype	Constraints
name	varchar	
qty	varchar	
price	float	
total	float	

Medicine :

Atttributes	Datatype	Constraints
m_id	varchar	Not null, primary key

name	varchar	
price	float	
stock	int	
p_date	varchar	

Bloodbank :

Attributes	Datatype	Constraints
bloodgp	varchar	
units	int	

Doner :

Attributes	Datatype	Constraints
name	varchar	
age	int	
gender	varchar	
bloodgp	varchar	
units	int	
contact	varchar	
address	varchar	
scheme	varchar	

pid	varchar	
date	varchar	

Request :

Attributes	Datatype	Constraints
name	varchar	
address	varchar	
age	int	
pid	varchar	
contact	varchar	
gender	varchar	
bloodgp	varchar	
units	int	
cause	varchar	
scheme	varchar	
date	varchar	

Resultentry :

Attributes	Datatype	Constraints

patientid	int	Not null, primary key, foreign key
name	varchar	
testtype	varchar	
resultdate	varchar	
component	varchar	
unit	varchar	

Testentry :

Attributes	Datatype	Constraints
patientid	int	Not null, primary key, foreign key
name	varchar	
departmnt	varchar	
testtype	varchar	
testamount	varchar	
testdate	varchar	

Tests :

Attributes	Datatype	Constraints
testtype	varchar	

testamount	float	

DESIGN

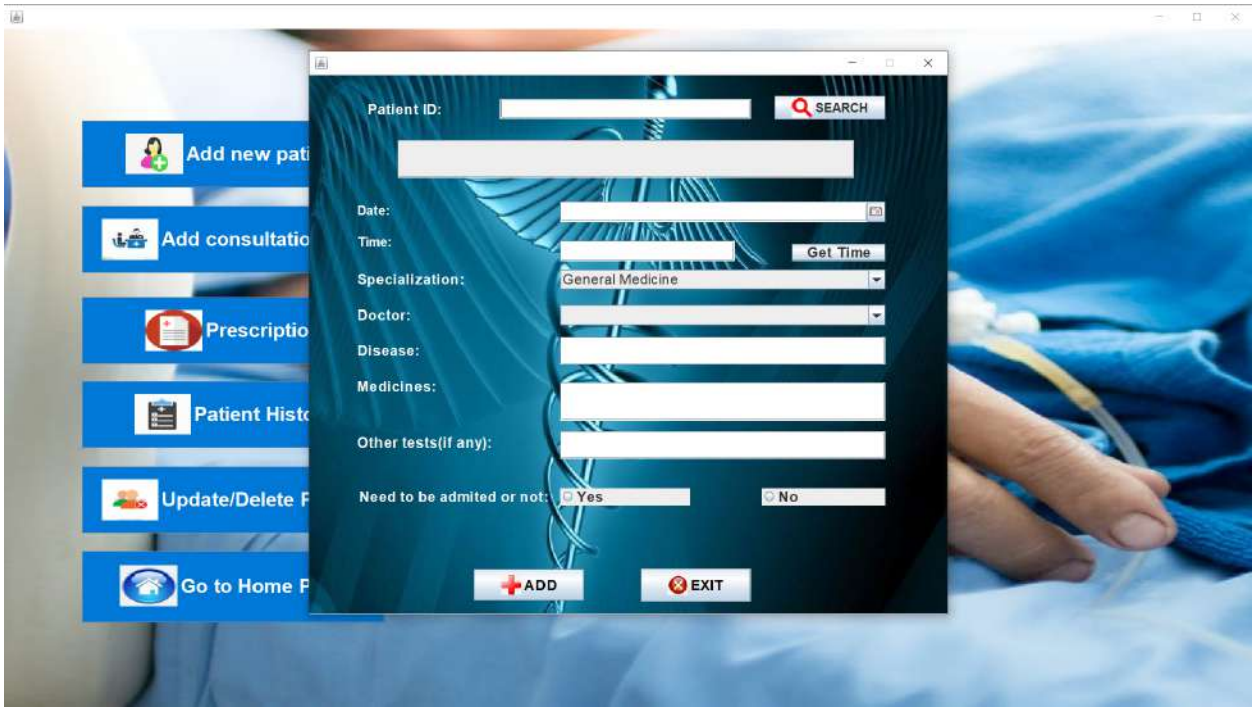
_____Login Page :

_____Home Page :

_____Patient page :

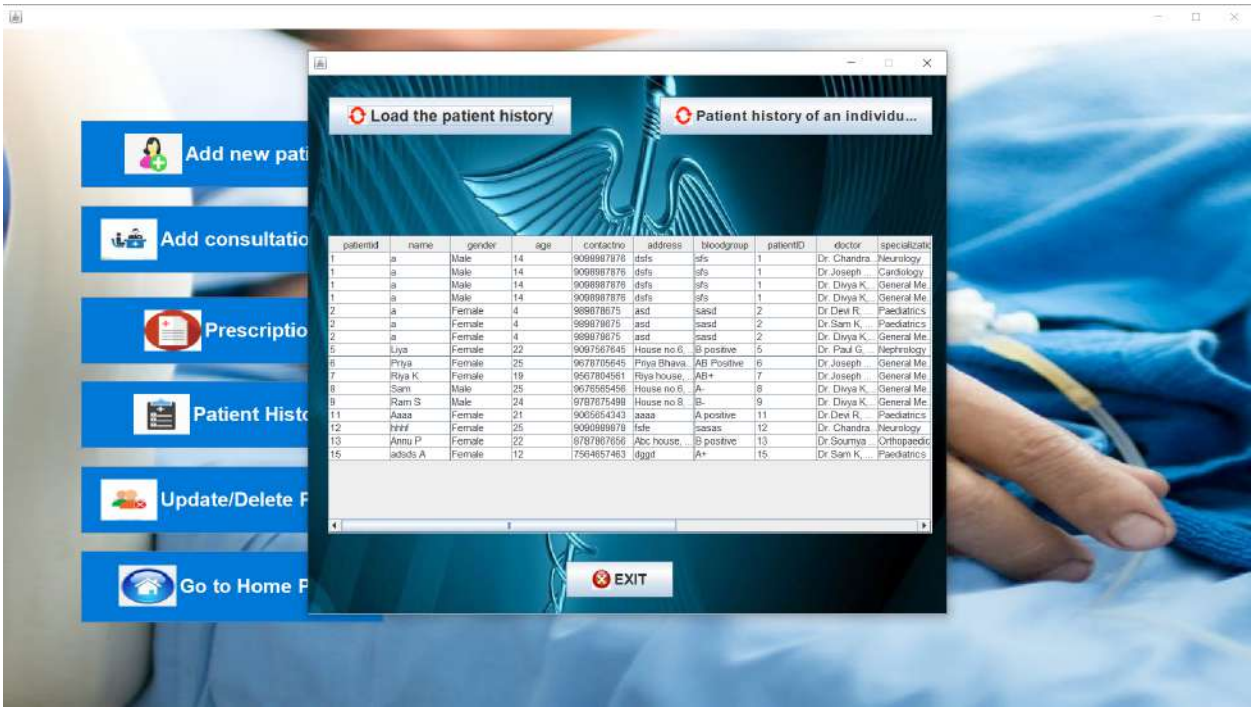
Add Patient :

_____Add consultation info :

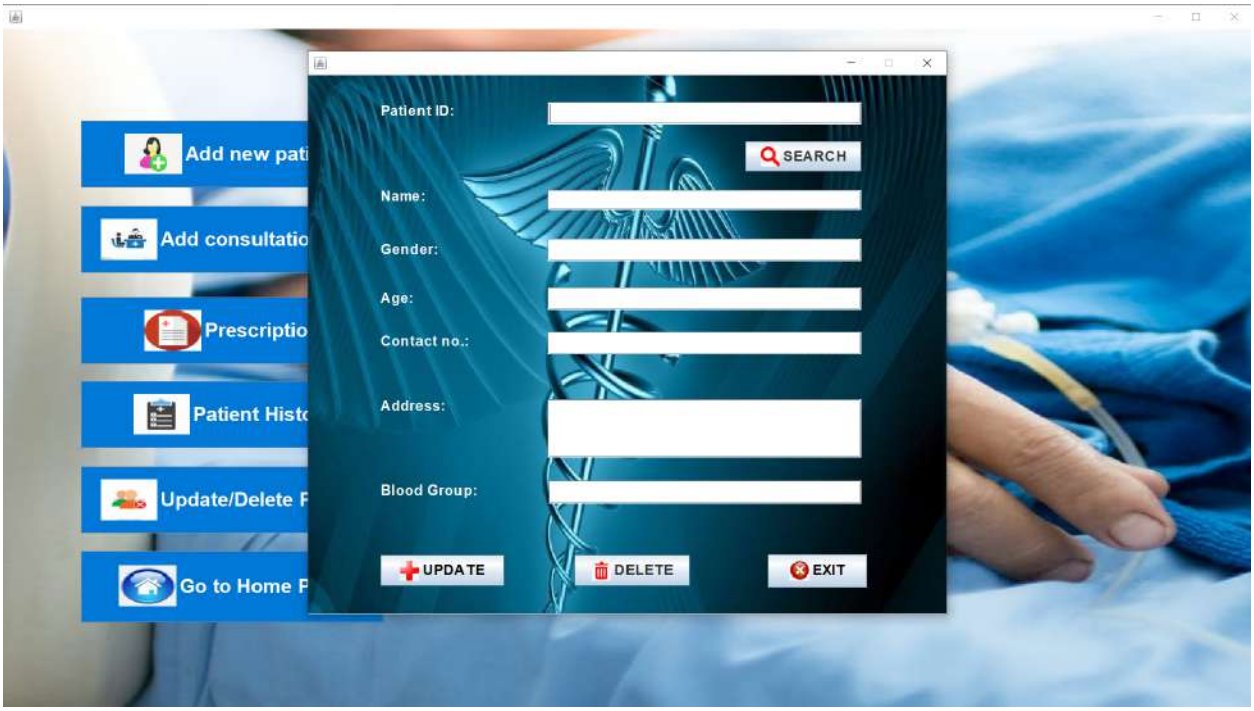


_____Prescription :

Patient history :

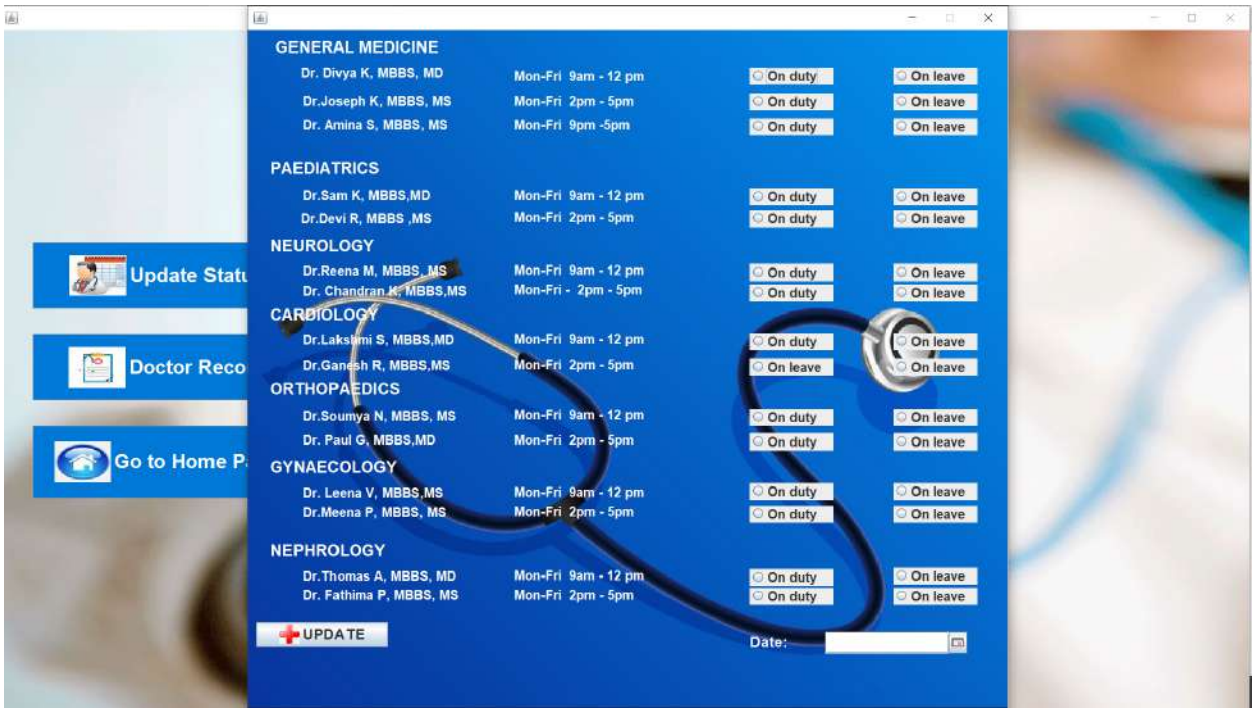


_____Update/delete patient :

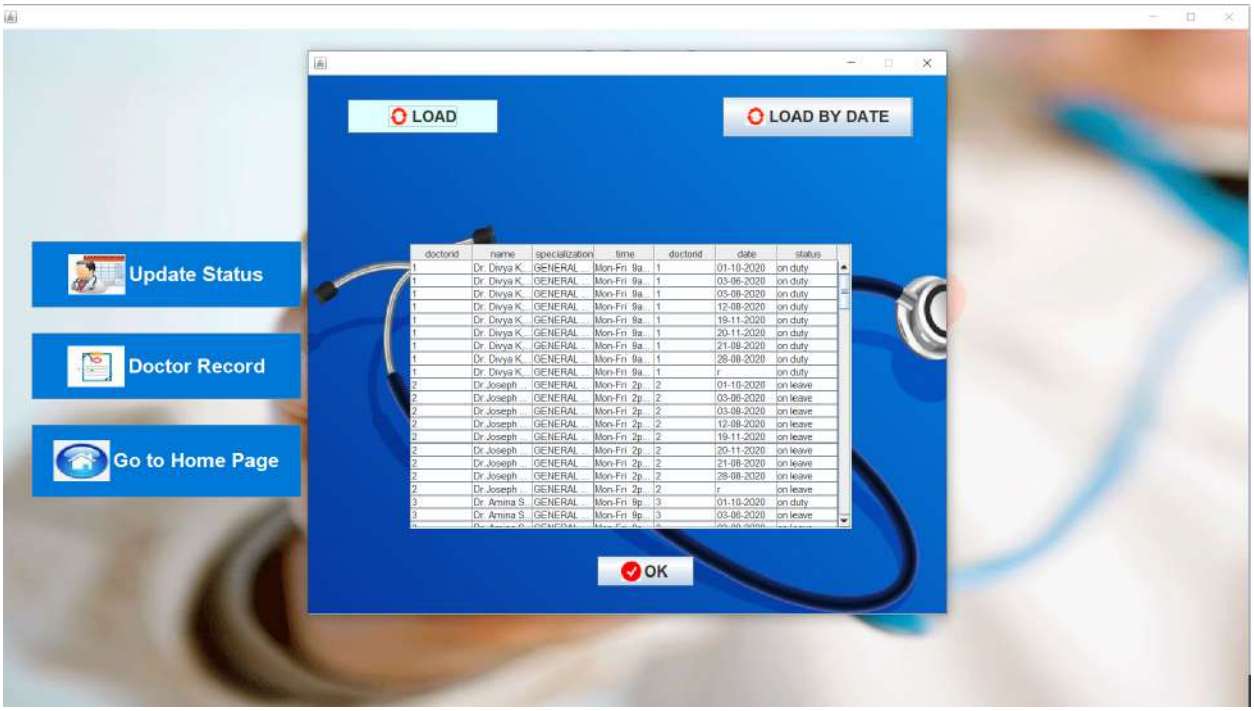


_____Doctor :

_____Update status :



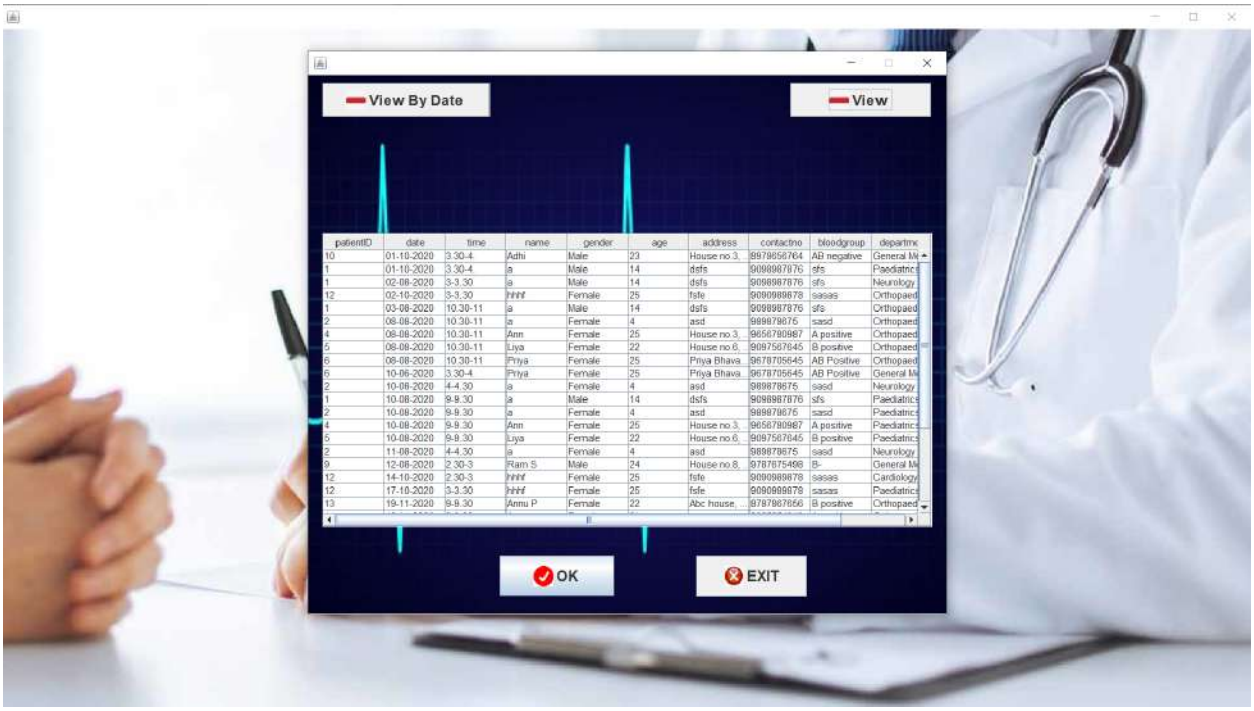
_____Doctor record :



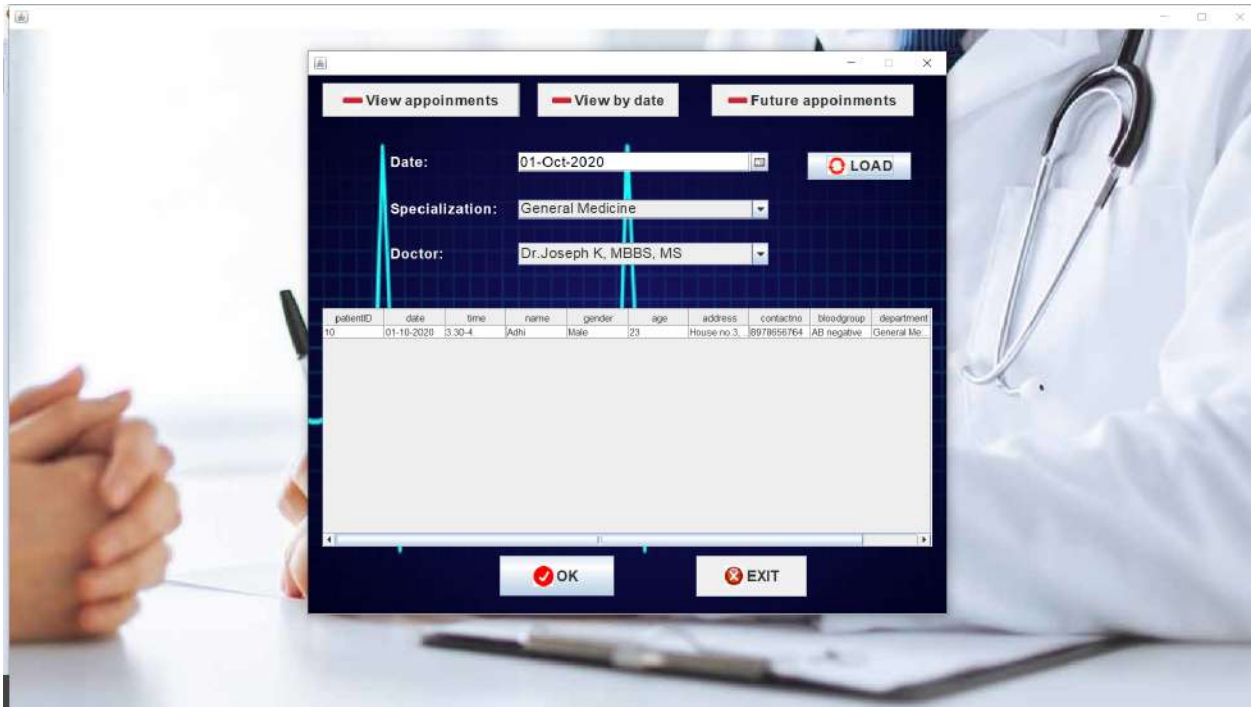
Appointment :

_____Take appointment :

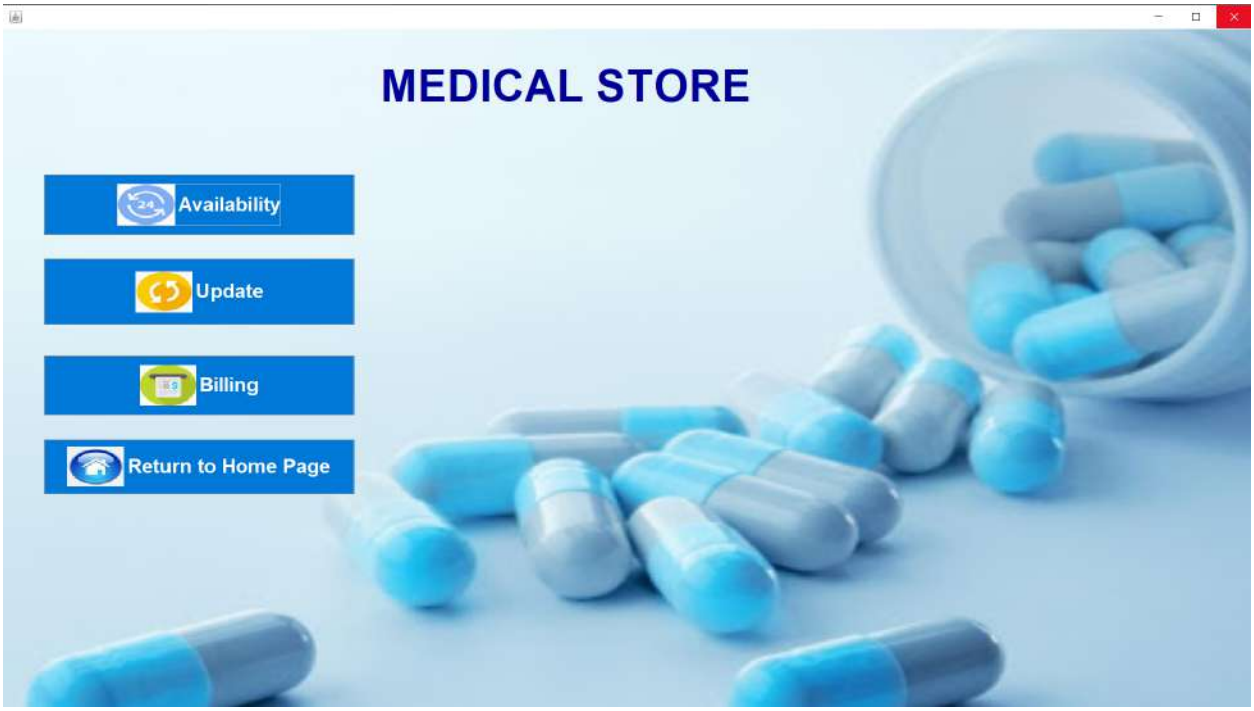
_____View appointment (By date) :



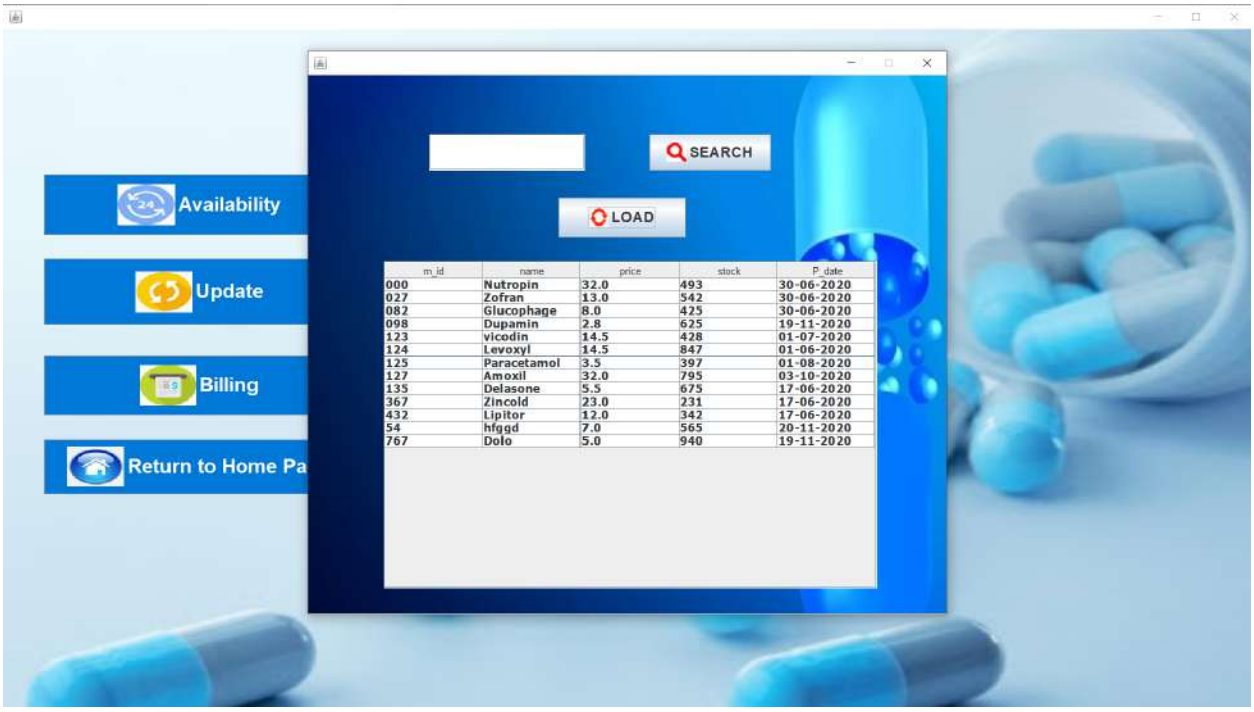
View appointment (By Doctor) :



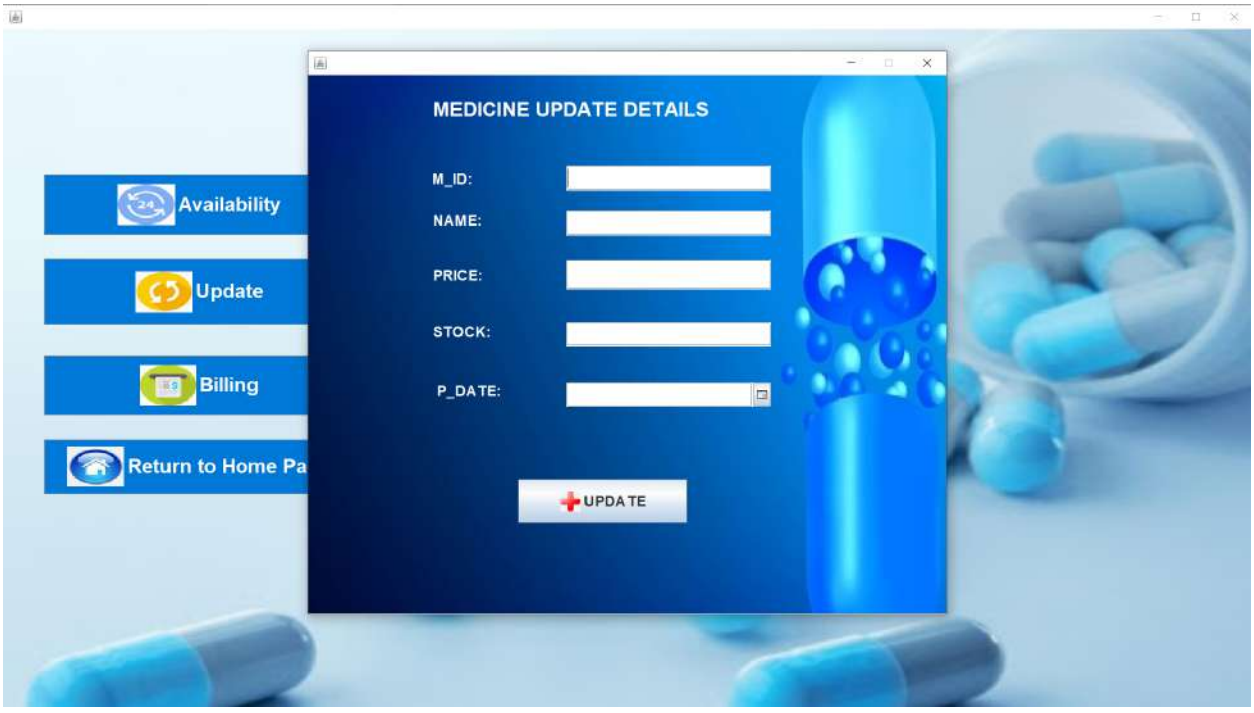
Pharmacy :

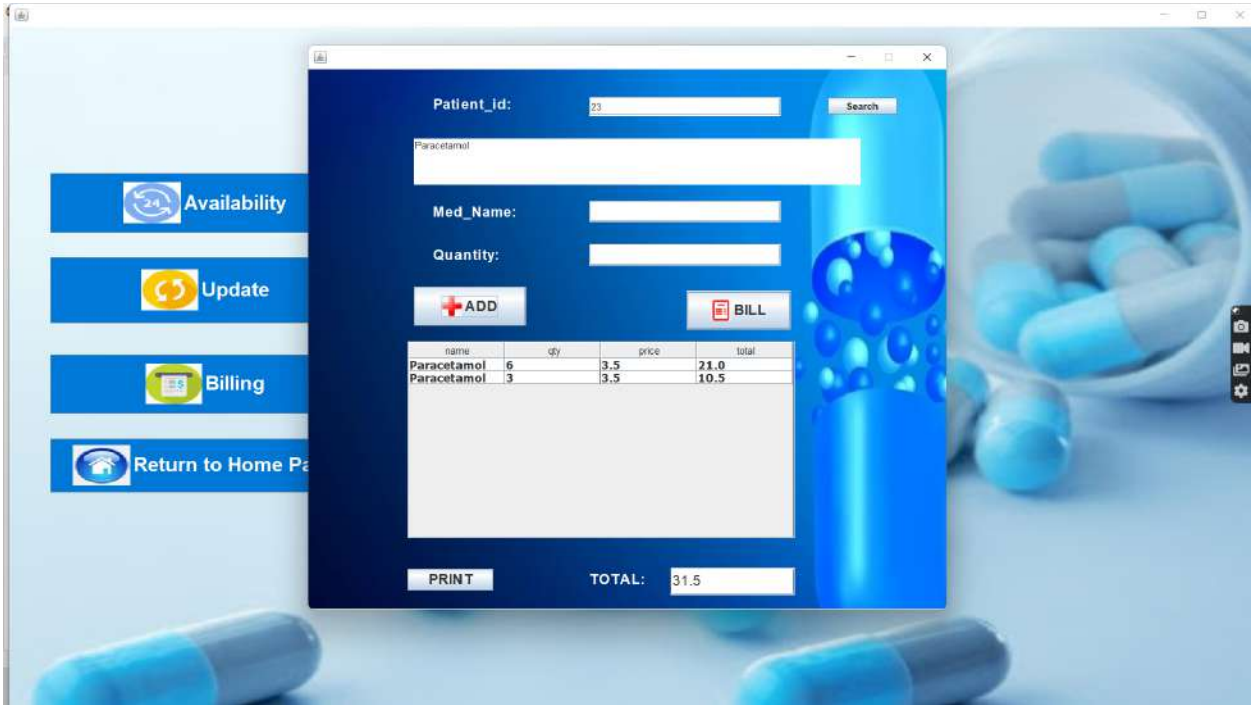


_____Availability :



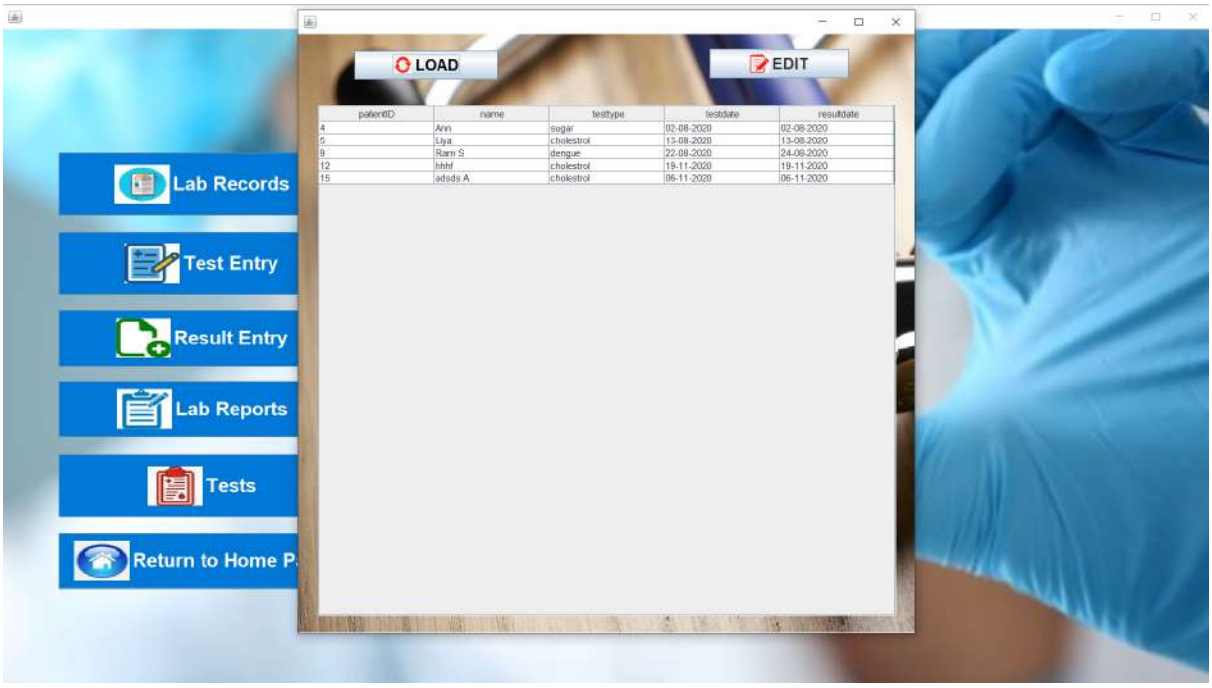
_____Update :



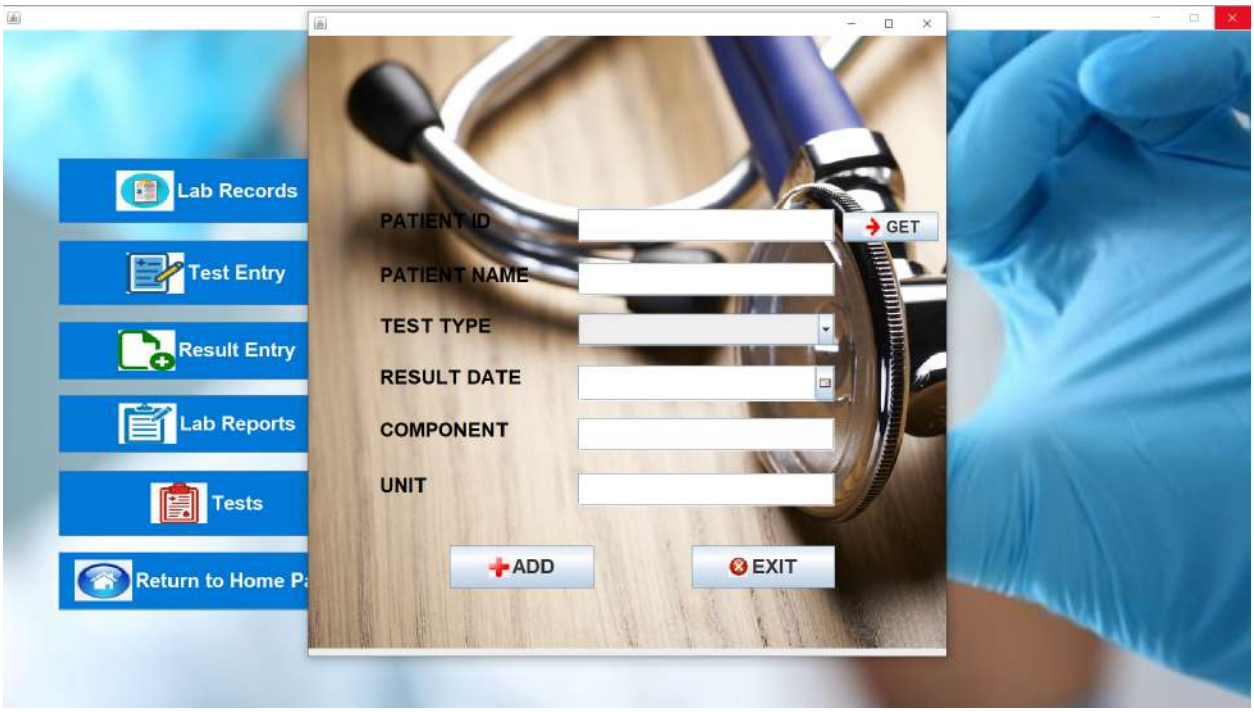


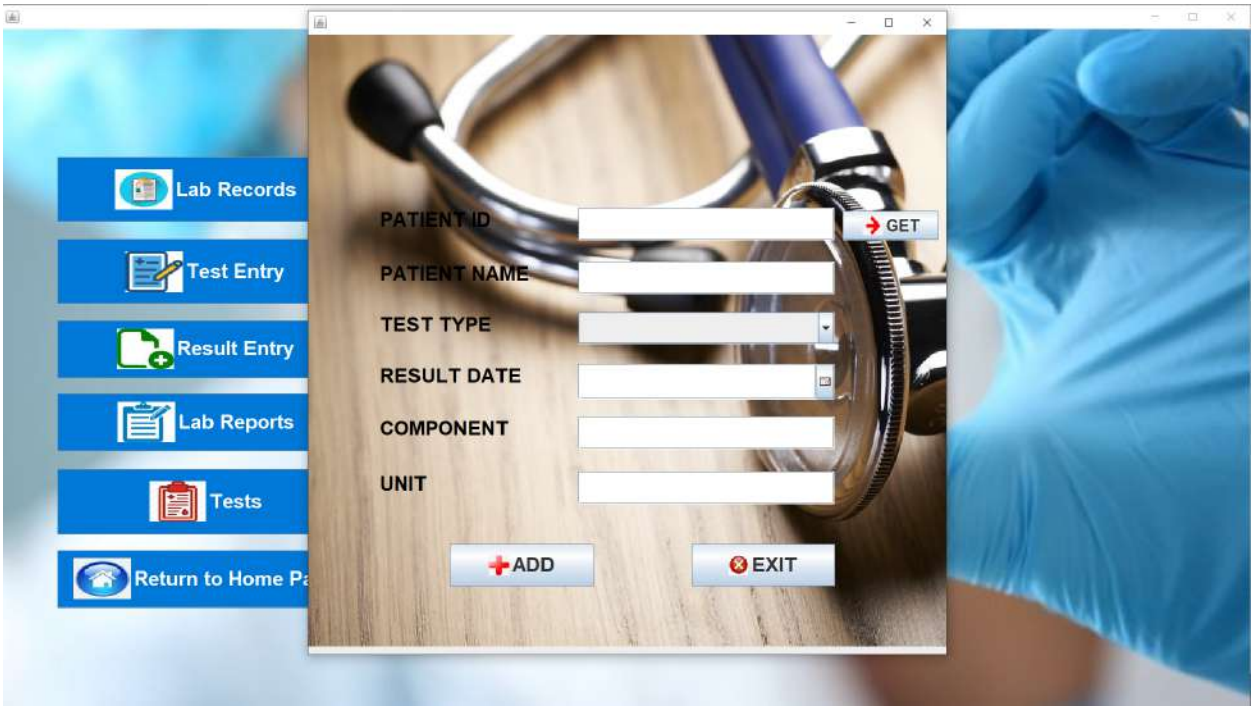
Billing :

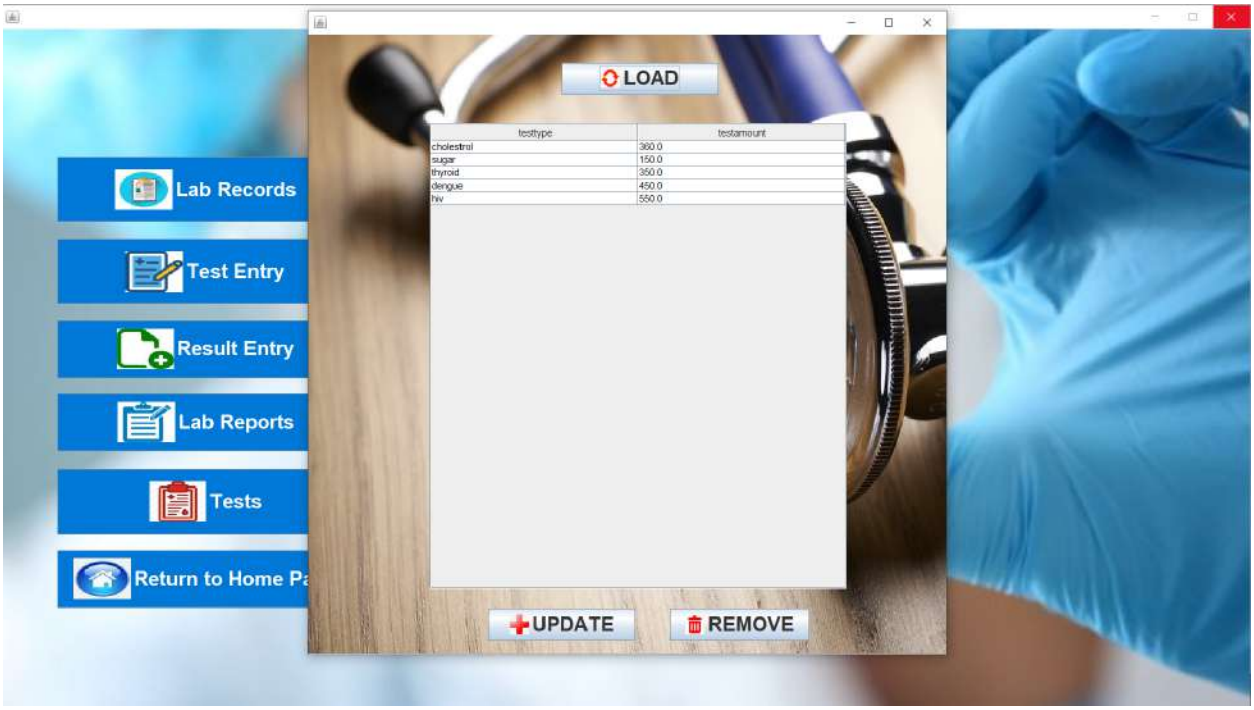
_____Laboratory :

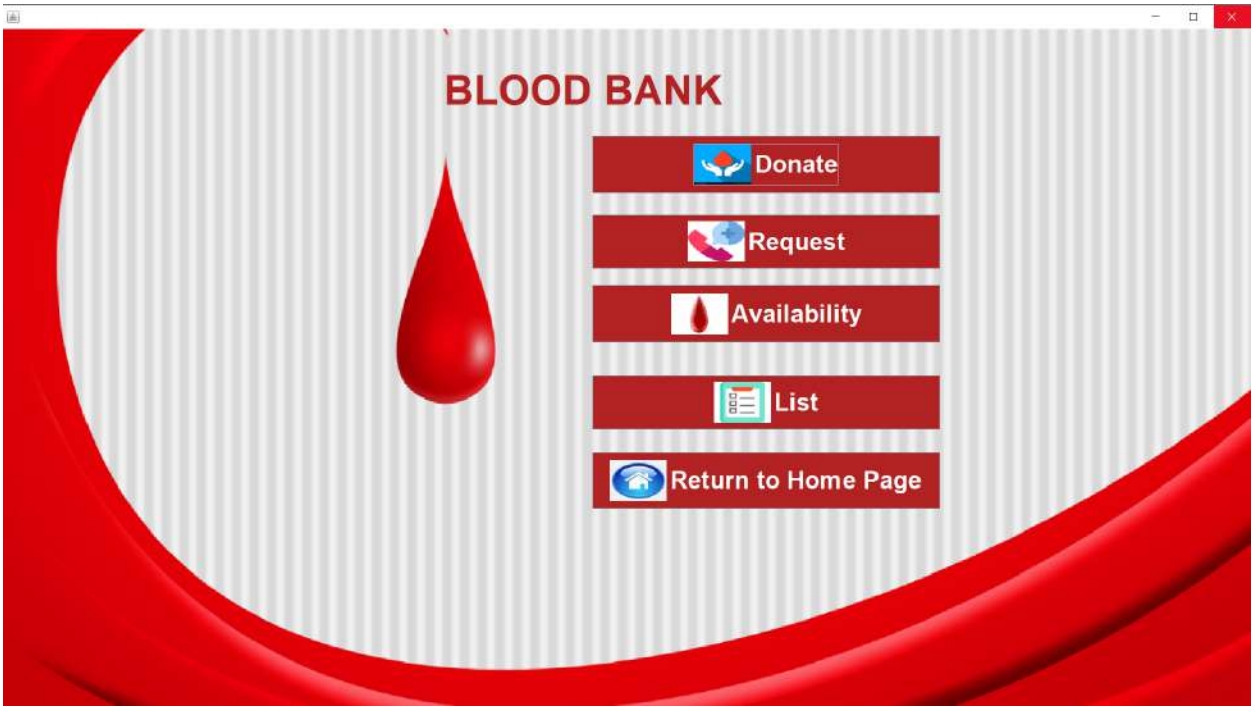

LOAD
EDIT
patientID
name
testtype
testdate
resultdate
4
Ann
sugar
02-08-2020
02-08-2020
5
Liya
cholestrol
13-08-2020
13-08-2020
9
Ram S
dengue
22-08-2020
24-08-2020
12
hhhf
cholestrol
19-11-2020
19-11-2020
15
adsds A
cholestrol
06-11-2020
06-11-2020
Lab Records
Test Entry
Result Entry
Lab Reports
Tests
Return to Home P

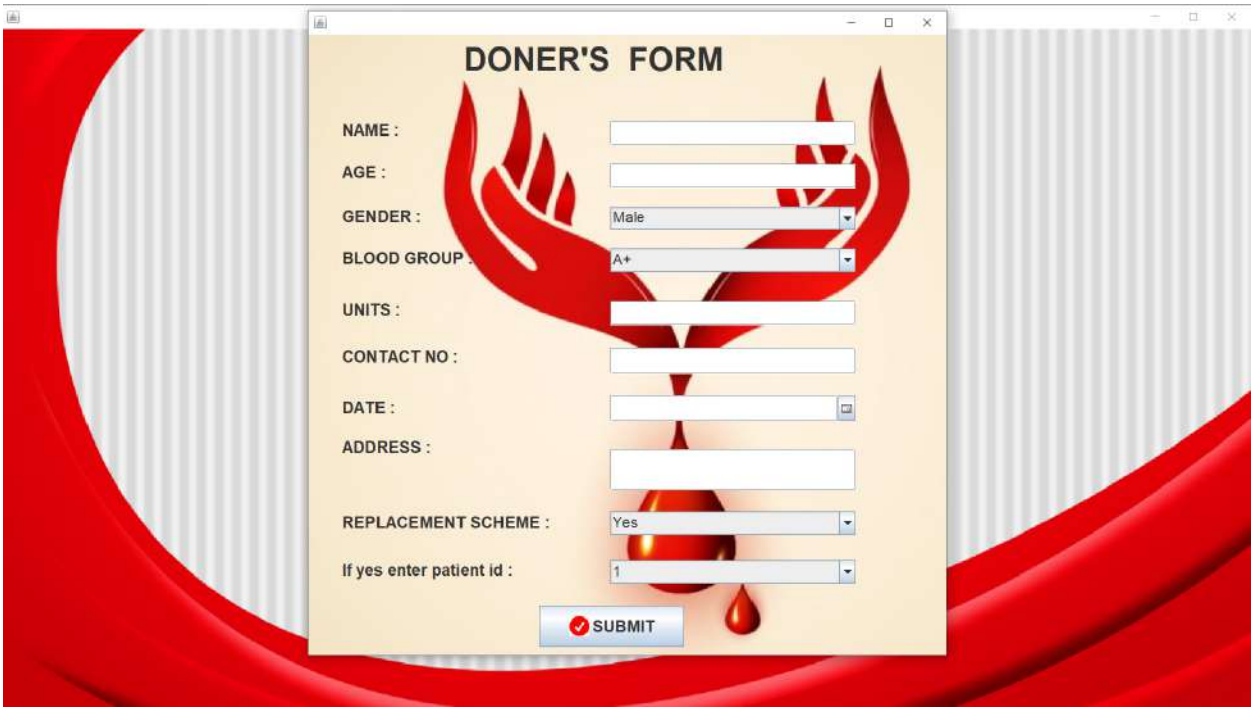
Test entry :


Lab Records
Test Entry
Result Entry
Lab Reports
Tests
Return to Home P
PATIENT ID
GET
PATIENT NAME
TEST TYPE
RESULT DATE
COMPONENT
UNIT
ADD
EXIT

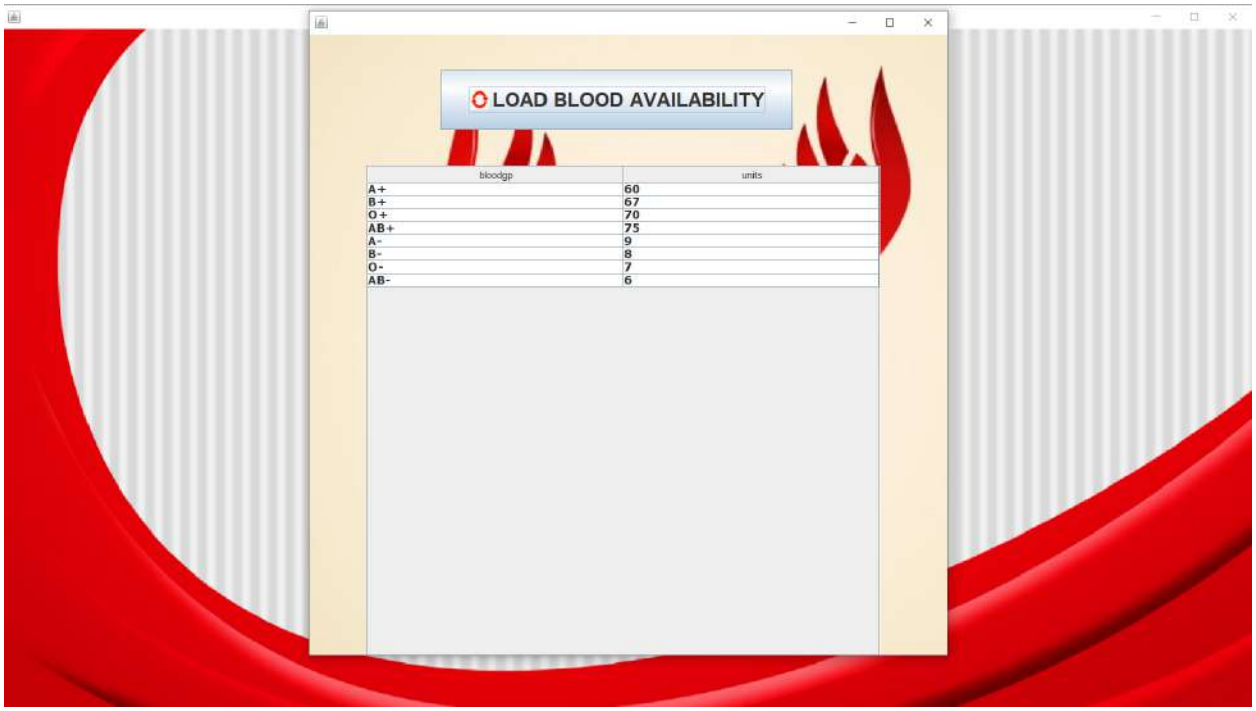

Lab Records
Test Entry
Result Entry
Lab Reports
Tests
Return to Home Pa
PATIENT ID
GET
PATIENT NAME
TEST TYPE
RESULT DATE
COMPONENT
UNIT
ADD
EXIT


Lab Records
Test Entry
Result Entry
Lab Reports
Tests
Return to Home Pa
LOAD
testtype
testamount
cholestrol 360.0
sugar 150.0
thyroid 350.0
dengue 450.0
hiv 550.0
UPDATE
REMOVE

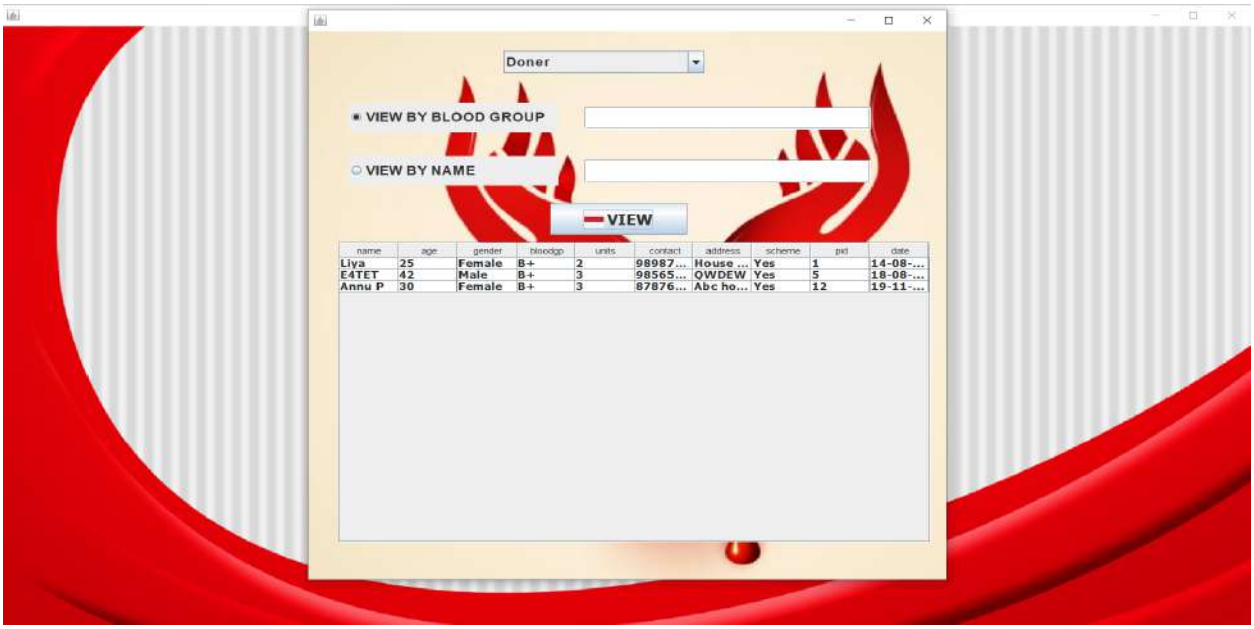

BLOOD BANK
Donate
Request
Availability
List
Return to Home Page


DONER'S FORM
NAME :
AGE :
GENDER :
Male
BLOOD GROUP :
A+
UNITS :
CONTACT NO :
DATE :
ADDRESS :
REPLACEMENT SCHEME :
Yes
If yes enter patient id :
1
SUBMIT

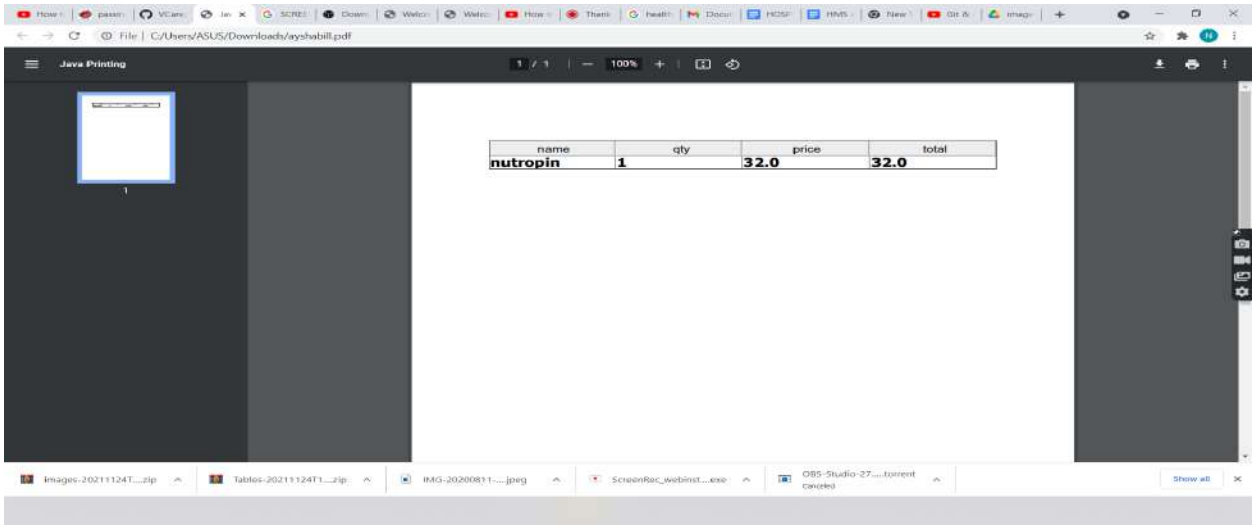

REQUEST FORM
NAME :
ADDRESS :
AGE :
DATE :
PID :
1
CONTACT :
GENDER :
Male
BLOOD GROUP :
A+
UNITS :
CAUSE :
SCHEME :
Yes
SUBMIT


LOAD BLOOD AVAILABILITY
bloodgp
units
A+ 60
B+ 67
O+ 70
AB+ 75
A- 9
B- 8
O- 7
AB- 6

List



Bill PDF



MODULE DESCRIPTION

Patient module

to enter details of the patient and to store all his case sheets in the database.

Appointment module

to facilitate appointments with doctors for the patients.

Pharmacy and laboratory modules

provides the details of medicines and tests provided in the hospital respectively.It also maintains the data of all the activities taking place in corresponding departments.

Blood Bank module

for getting details of availability of blood,donors etc.

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.