
DESIGN DOCUMENT

for

HOSPITAL MANAGEMENT WEBSITE

Version 1.0

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1 Introduction

1.1 Purpose

The purpose of this document is to describe the implementation of the hospital management software as described in the hospital management system Requirements document. This system is designed to aid the management of the hospital virtually i.e.,online mode.

1.2 Scope

This document describes the implementation details of the hospital management software. The software will consist of two major interfaces. First for the user(patient) and next for the data entry operator(admin). users can book appointments for vaccines or tests or for consultations with doctors,view prescriptions if any,view their diagnosis results,view pharmacy stocks,view their past billing history,view their profiles and request for changes if they want to. Where as admin can add test results,add billings,update stocks of the pharmacy,change profiles if requested by any user or doctor,add prescriptions.This document will not specify the exact details of these things being implemented.

1.3 Definitions, Acronyms, Abbreviations

SUGAR TESTS:

Insulin: Insulin is a hormone that lowers the level of glucose (a type of sugar) in the blood.

Post prandial sugar level(PPSL): The word post prandial means after a meal; therefore, PPSL concentrations refer to plasma glucose concentrations after eating

BP TESTS:

Diastolic pressure: the pressure in the arteries when the heart rests between beats. This is the time when the heart fills with blood and gets oxygen.

Systolic pressure: The top number, measures the force your heart exerts on the walls of your arteries each time it beats

2 Design Overview

2.1 Description of Problem

The traditional physical waiting for appointments or maintaining large records of patients leads to inefficient situations and creates chaos. To aid the smooth running of the hospital and ease the appointments' booking process we have come up with this software. The admin can use this software to enter and store details in database in an efficient method. Similarly users can just view available doctors and book appointments online.

2.2 Technologies Used

We have used the django framework with python and HTML, CSS, javascript. We need any browser supporting these to deploy the software.

2.3 System Architecture

Figure 2.1 depicts the high-level system architecture with the help of use-case diagram. The system will be constructed from multiple distinct components:

- Patient Interface — The windowed interface for viewing profiles, booking slots, viewing past bills, prescriptions.
- Admin Interface — The windowed interface for adding information into database like for example any diagnosis result, prescription, and for editing profiles.

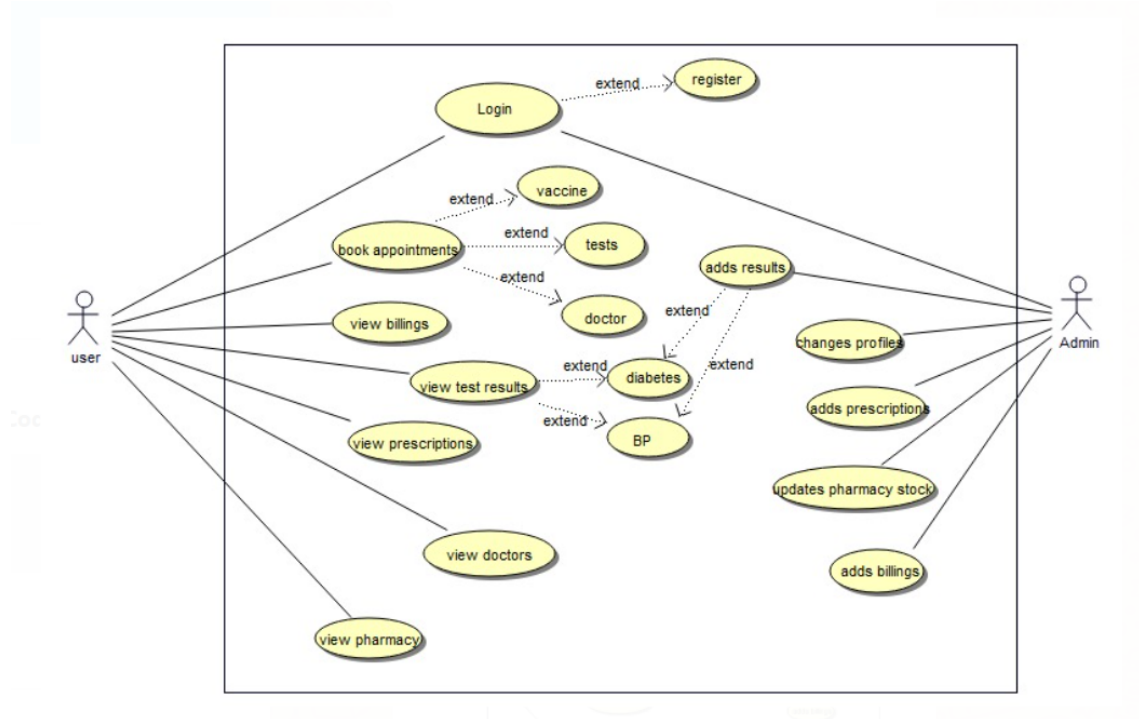


Figure 2.1: figure 1

2.4 System Operation

Figure 2.2 is the typical sequence of events that occur during a session when admin works on the software.

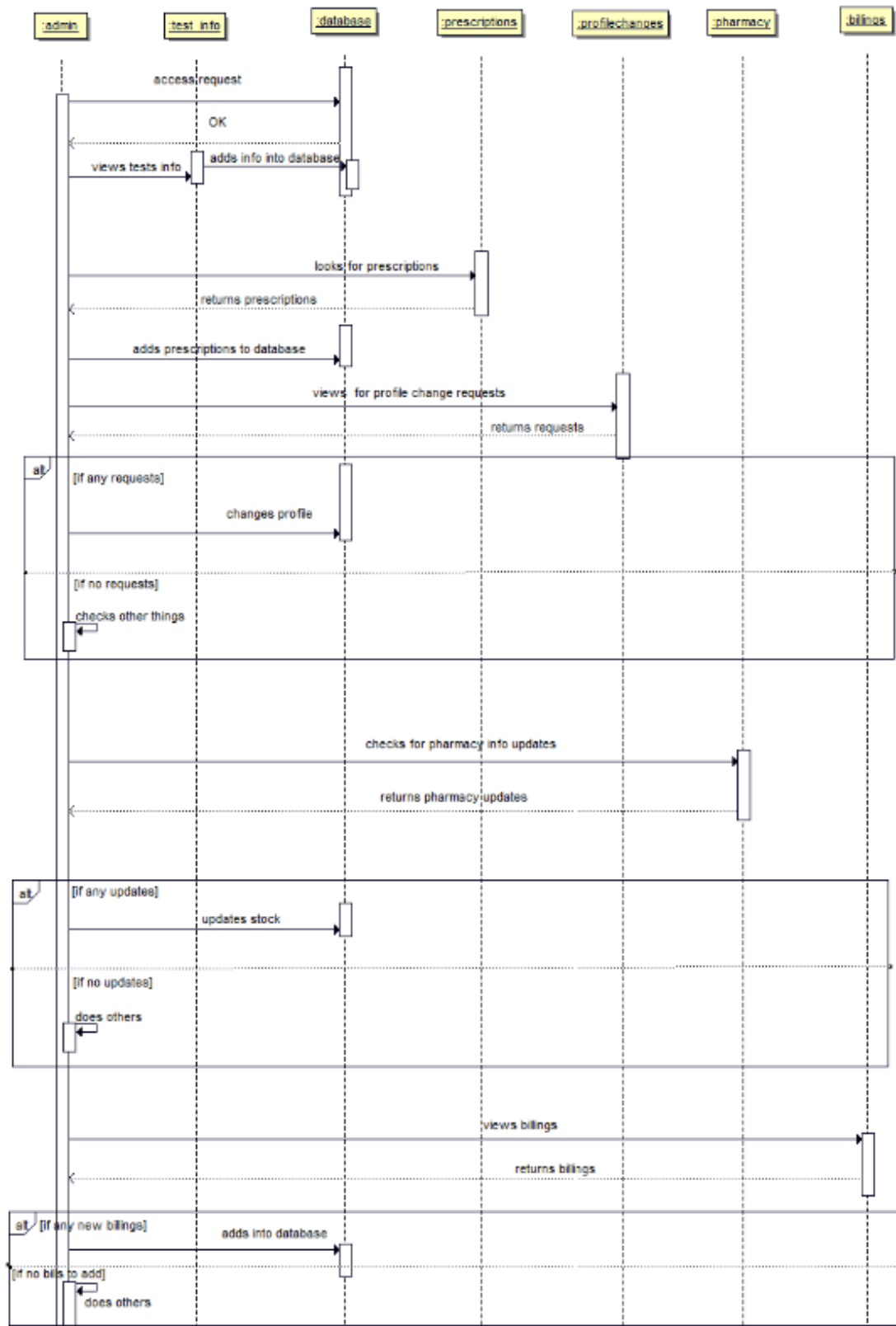


Figure 2.2: figure 2

3 Interfaces

3.1 Data entry operator interface

CLASS DIAGRAM OF DATA ENTRY OPERATOR INTERFACE

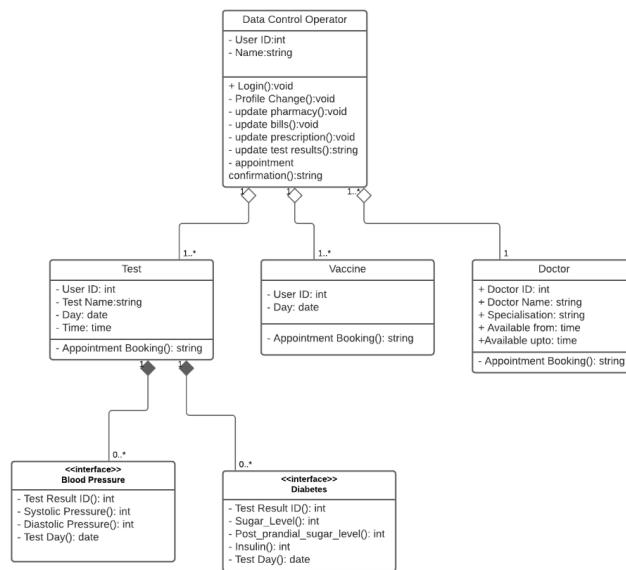


Figure 3.1: class diagram

WIREFRAME OF DATA ENTRY OPERATOR INTERFACE

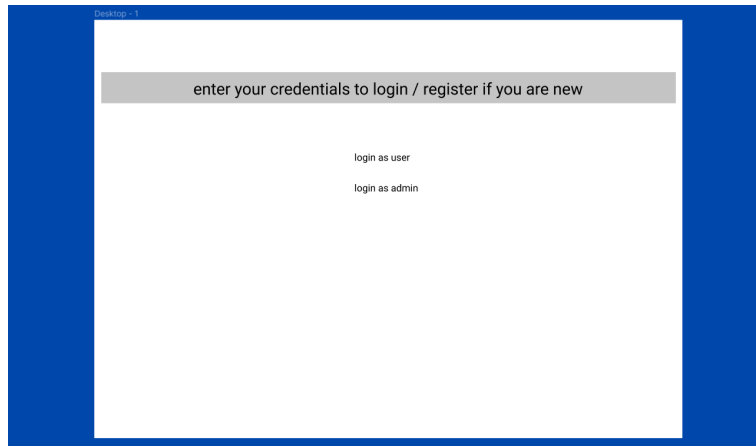


Figure 3.2: login page 1

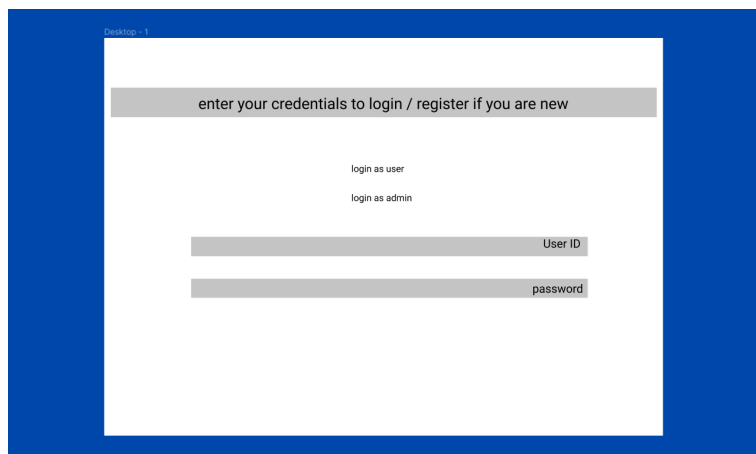


Figure 3.3: login page 2

Desktop - 1

e-hospital managemet system

HOME TEST RESULTS PATIENT PROFILE PHARMACY ADD DESCRIPTION ADD BILLINGS

DOCTOR PROFILE EDITS

doctor id

doctor name

specialisation

date

time

update

Figure 3.4: doctor profile update

Desktop - 1

e-hospital managemet system

HOME TEST RESULTS PATIENT PROFILE PHARMACY ADD DESCRIPTION ADD BILLINGS

adding prescriptions

patient id

doctor name

prescriptions

date

enter

Figure 3.5: add prescriptions

Desktop - 1

e-hospital management system

HOME TEST RESULTS PATIENT PROFILE PHARMACY ADD DESCRIPTION ADD BILLINGS

Patient profile edits

patient id

day

amount

enter

Figure 3.6: patient profile update

Desktop - 1

e-hospital management system

HOME TEST RESULTS PATIENT PROFILE PHARMACY ADD DESCRIPTION ADD BILLINGS

add bills

patient id

day

amount

enter

Figure 3.7: add bills

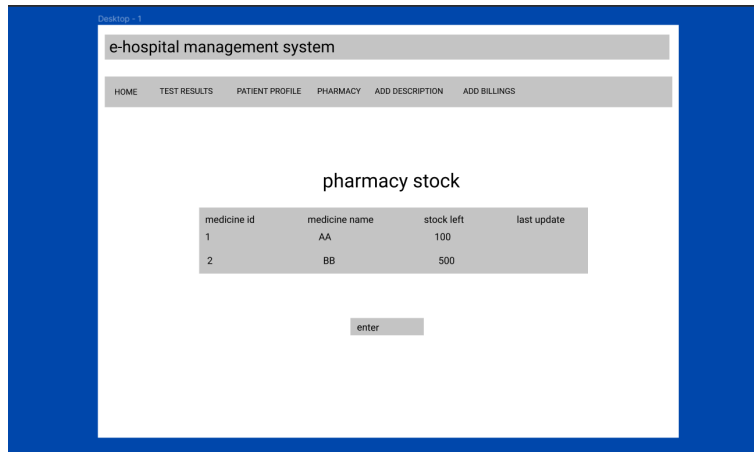


Figure 3.8: pharmacy stock

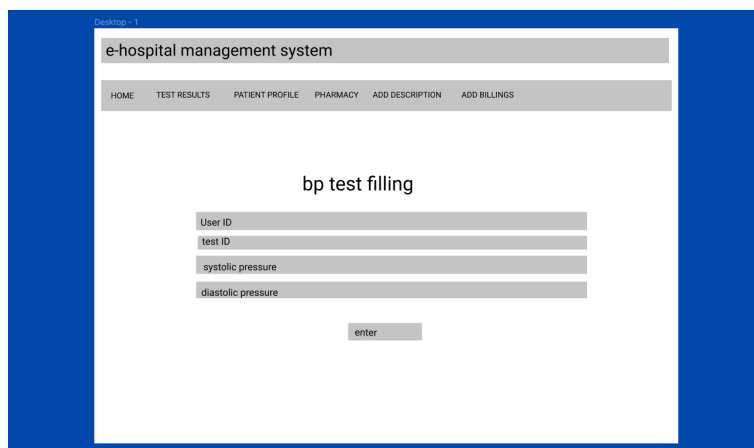


Figure 3.9: BP test filling

Desktop - 1

e-hospital management system

HOME TEST RESULTS PATIENT PROFILE PHARMACY ADD DESCRIPTION ADD BILLINGS

diabetes test filling

User ID

test ID

sugar levels

pp sugar levels

insulin

enter

Figure 3.10: Diabetes test filling

3.2 User interface

CLASS DIAGRAM OF USER INTERFACE

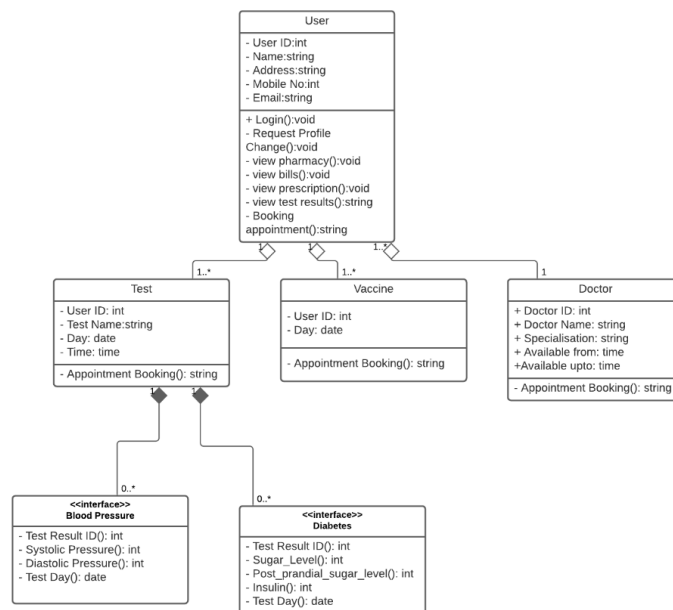


Figure 3.11: class diagram

SEQUENCE DIAGRAM OF USER INTERFACE

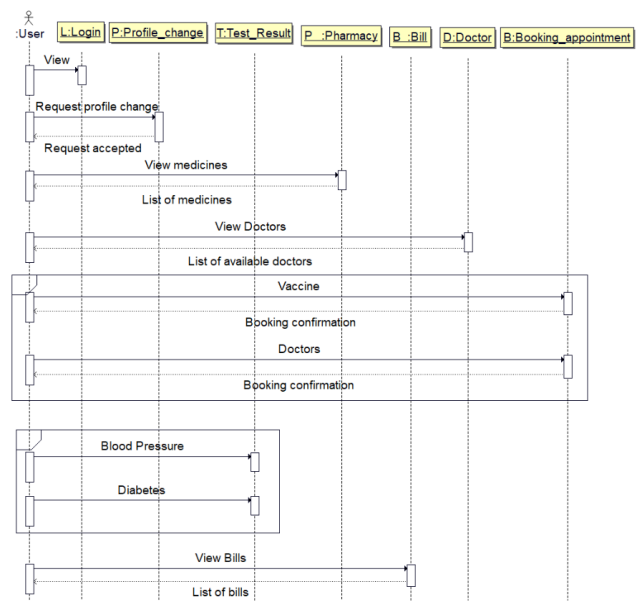


Figure 3.12: sequence diagram

WIREFRAME FOR USER INTERFACE

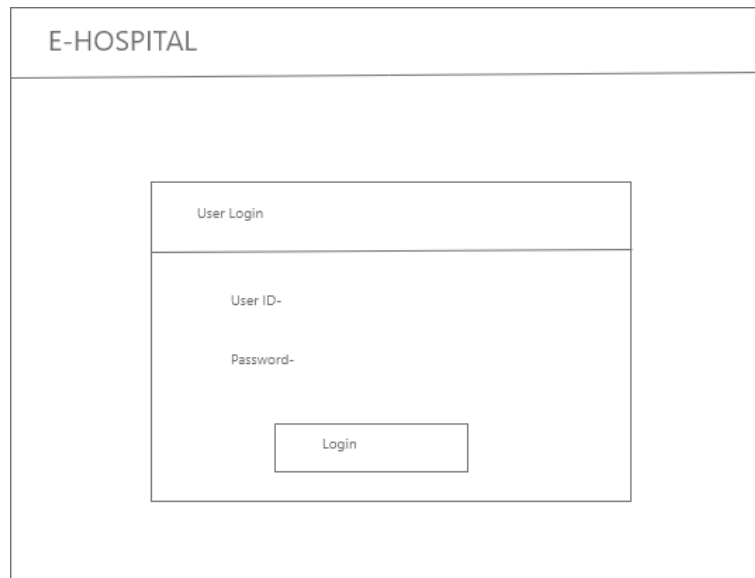


Figure 3.13: login page

E-HOSPITAL

User Signup

User Name-

Mobile-

Email-

Password-

Address-

Sign Up

Figure 3.14: sign up page



<div> E-HOSPITAL </div>	
User	<div>User Profile</div> <div>Name-</div> <div>Email-</div> <div>Mobile-</div> <div>Address-</div>
Doctor	
Appointments ▼	
Vaccine	
Diagnosis	
Doctor	
Medicines	
Past Results	
Diabetes	
BP	
Billing	

Figure 3.15: user profile



<div> E-HOSPITAL </div>	
User	<div>Doctor Profile</div> <div>Name-</div> <div>ID-</div> <div>Specialization-</div> <div>Available from-</div> <div>Available to-</div>
Doctor	
Appointments ▼	
Vaccine	
Diagnosis	
Doctor	
Medicines	
Past Results	
Diabetes	
BP	
Billing	

Figure 3.16: doctor profiles

E-HOSPITAL

User

Doctor

Appointments

Vaccine

Diagnosis

Doctor

Medicines

Past Results

Diabetes

BP

Billing

Diagnosis Appointment

Doc ID-

Date Available-

ADD

Figure 3.17: book doctor appointment

E-HOSPITAL

User

Doctor

Appointments

Vaccine

Diagnosis

Doctor

Medicines

Past Results

Diabetes

BP

Billing

Vaccine Appointment

Date Available-

ADD

Figure 3.18: book vaccine appointment

E-HOSPITAL

User

Doctor

Appointments

Vaccine

Diagnosis

Doctor

Medicines

Past Results

Diabetes

BP

Billing

Diagnosis Appointment

Test Name-

Date Available-

ADD

Figure 3.19: book diagnosis appointment

E-HOSPITAL

User

Doctor

Appointments

Vaccine

Diagnosis

Doctor

Medicines

Past Results

Diabetes

BP

Billing

Medicines

Name-

ID-

Stock left-

Last Updated-

Figure 3.20: view medicines



<div>  <div>E-HOSPITAL</div>  </div>	
User	<div>Past Results</div> <div> Test Date- Test ID- Insulin level- PPSL- Sugar level- Diastolic Pressure- Systolic Pressure- </div>
Doctor	
Appointments ▾	
Vaccine	
Diagnosis	
Doctor	
Medicines	
Past Results	
Diabetes	
BP	
Billing	

Figure 3.21: view past results



<div>  <div>E-HOSPITAL</div>  </div>	
User	<div>Diabetes</div> <div> Test Id- Test Date- Insulin Level- Sugar Level- PPSL- </div>
Doctor	
Appointments ▾	
Vaccine	
Diagnosis	
Doctor	
Medicines	
Past Results	
Diabetes	
BP	
Billing	

Figure 3.22: view diabetes result



<div>  <div>E-HOSPITAL</div>  </div>	
User	<div>BP</div> <div>Test Id-</div> <div>Test Date-</div> <div>Diastolic Pressure-</div> <div>Systolic Pressure-</div>
Doctor	
Appointments ▼	
Vaccine	
Diagnosis	
Doctor	
Medicines	
Past Results	
Diabetes	
BP	
Billing	

Figure 3.23: view bp results



<div></div> <div>E-HOSPITAL</div> <div></div>	
User	<div>Billing Information</div> <div>List of bills paid</div> <div>Date-</div> <div>Amount Paid-</div>
Doctor	
Appointments ▼	
Vaccine	
Diagnosis	
Doctor	
Medicines	
Past Results	
Diabetes	
BP	
Billing	

Figure 3.24: view bill