

Group-20 Healthcare Monitoring System

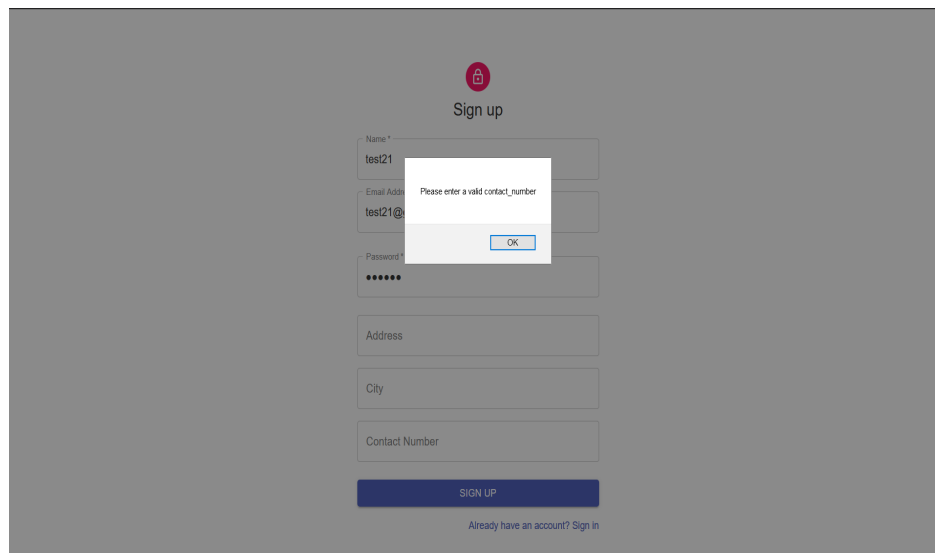
Unit testing

- Unit testing is done by the developer. Unit testing is a type of software testing where individual units or components of a software are tested. The purpose is to validate that each unit of the software code performs as expected.
- The **Unit Testing Techniques** are mainly categorized into 2 parts which are Black box testing that involves testing of user interface along with input and output, White box testing that involves testing the functional behaviour of the software application.
- White box testing is very hard in our project so we will perform black box testing
- We will use the equivalence class method and boundary value method for efficient black box testing.

TEST 1:

Create an Account (Patient)

- ◆ The fields :- name , email, password, contact number are necessary. Otherwise the user should not be registered.
- ◆ The email id should be unique otherwise email already exists message will be displayed



The screenshot shows a 'Sign up' form with the following fields: Name, Email Address, Password, Address, City, and Contact Number. A validation error message 'Please enter a valid contact_number' is displayed over the Contact Number field. The form includes a 'SIGN UP' button and a link for users who already have an account.

Sign up

Name*

test21

Email Address*

test21@

Password*

Address


City

Contact Number

OK

SIGN UP

Already have an account? Sign in



Sign up

Name *
test21

Email Address *
test21@gmail.com

Password *

Address
1234 Street

City
Springfield


Contact Number
12345

SIGN UP

[Already have an account? Sign in](#)

Please enter a valid email

OK



Sign up

Name *
test21

Email Address *
test21@gmail.com

Password *

Address
1234 Street

City
Springfield


Contact Number
12345

SIGN UP

[Already have an account? Sign in](#)

Please enter a valid password

OK



Sign up

Name *
test10

Email Address *
test10@gmail.com

Password *

Address
1234 Street

City
Surat

Contact Number
12345

SIGN UP

[Already have an account? Sign in](#)

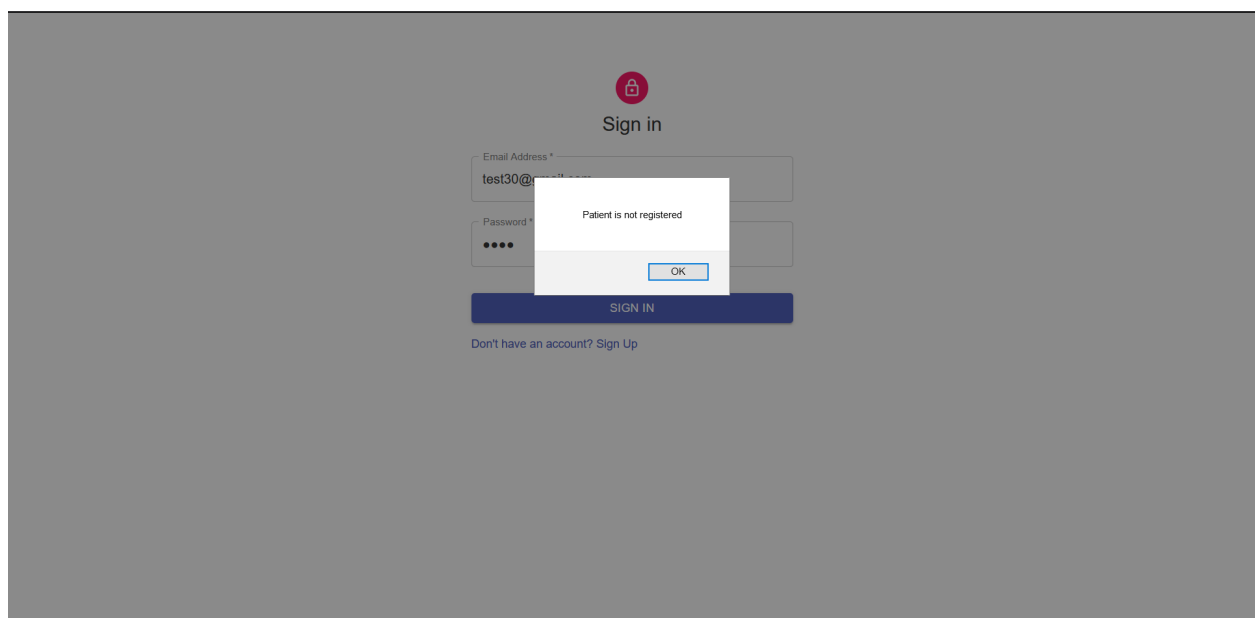
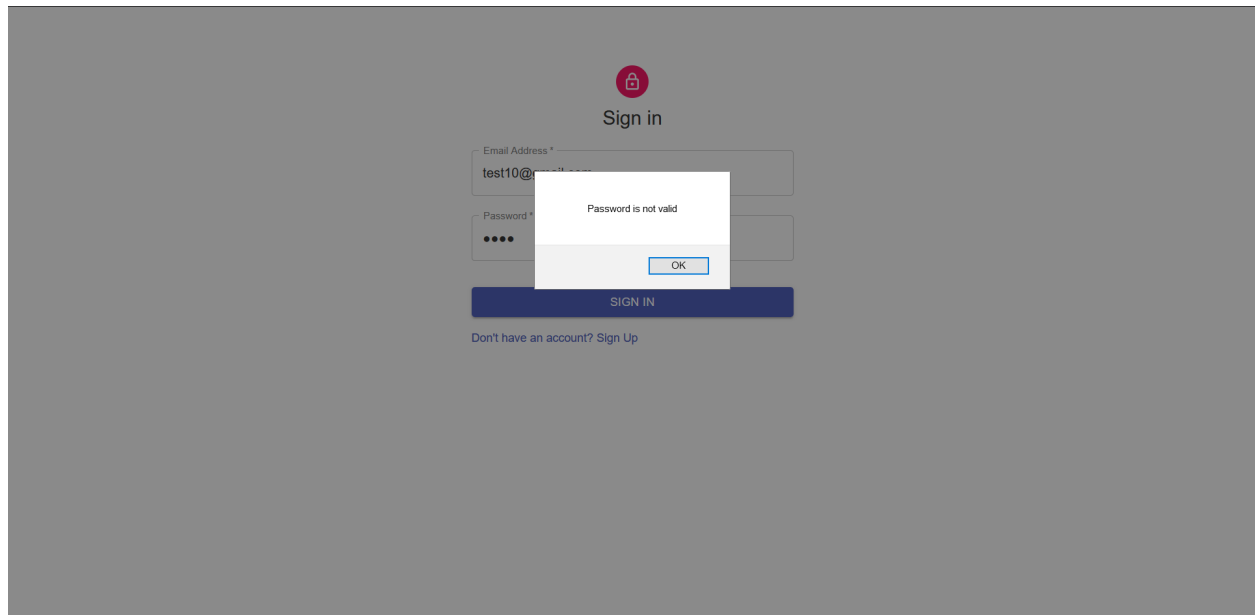
email is already in use please try another email

OK

TEST 2: Login (Patient)

Enter Email and Password:

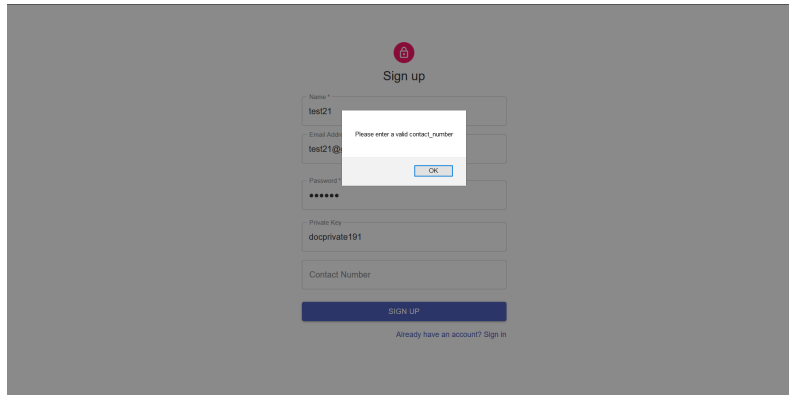
- If they do not match, then user doesn't exists message will be displayed
- If they match, then it will be redirected to the patient page



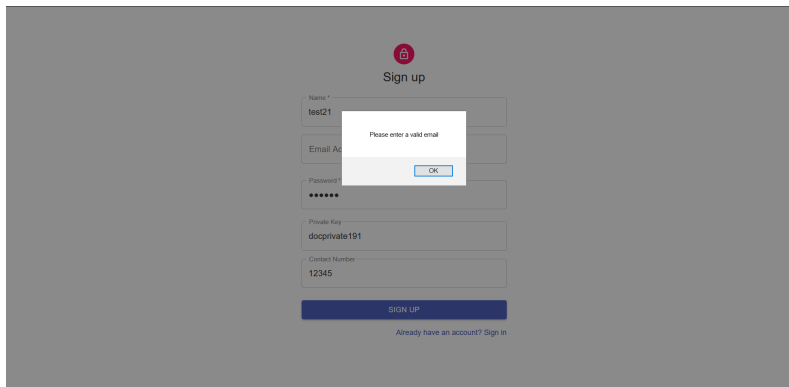
TEST 3:

Create an Account (Doctor) :-

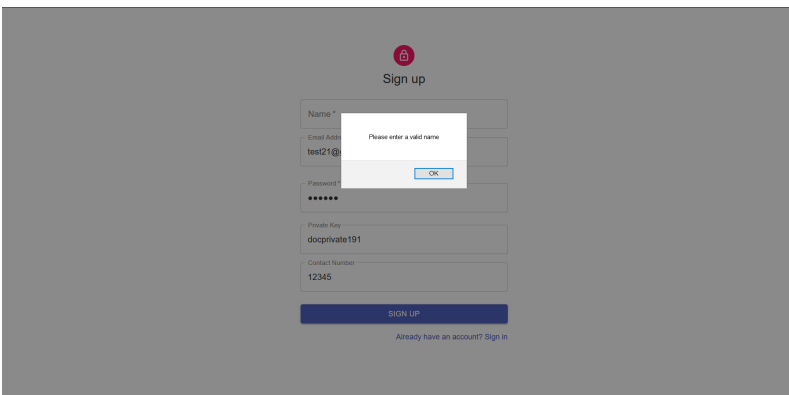
- If the private key is wrong, then the doctor should not be able to log in.
- If any of the fields(email, contact number , password) is missing, or the email is already registered, then the doctor should not be able to log in.



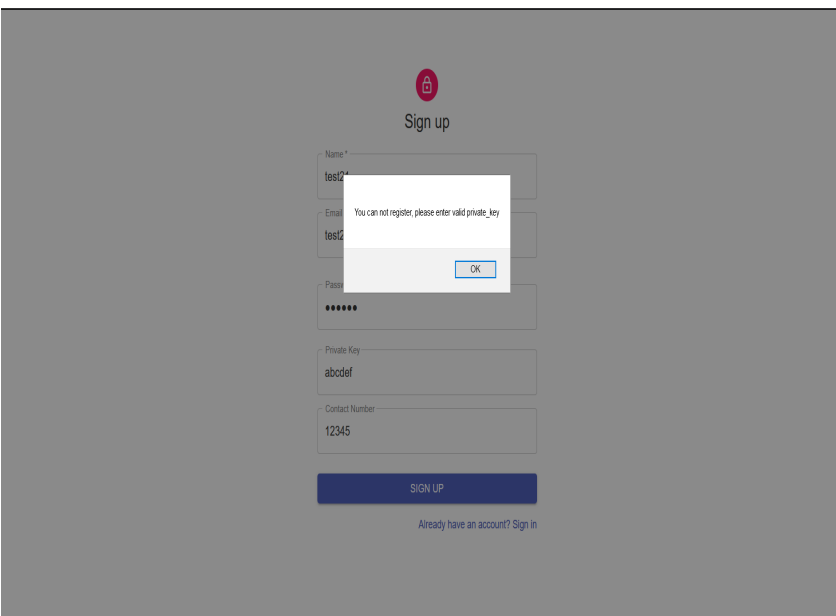
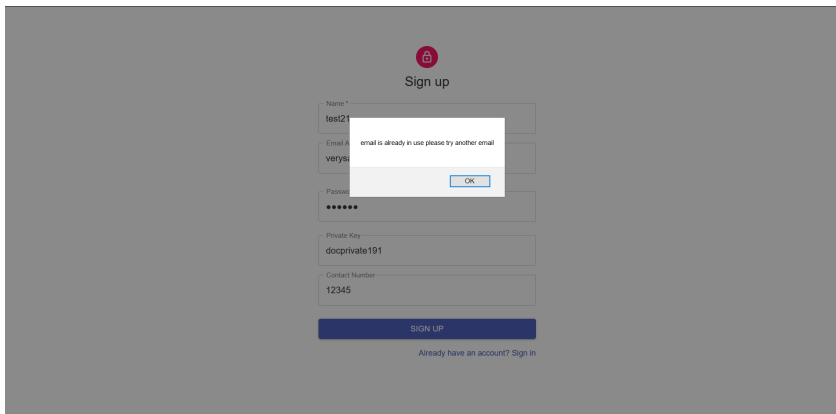
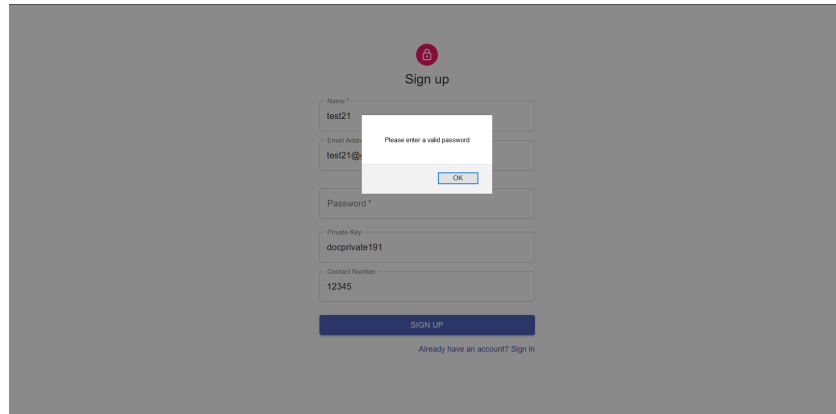
The image shows a 'Sign up' form with a red lock icon at the top. The form fields are: Name (test21), Email Address (test21@gmail.com), Password (masked with dots), Private Key (docprivate191), and Contact Number (empty). A blue 'SIGN UP' button is at the bottom. A modal dialog box is displayed over the form with the message 'Please enter a valid contact_number' and an 'OK' button. Below the button, there is a link: 'Already have an account? Sign in'.



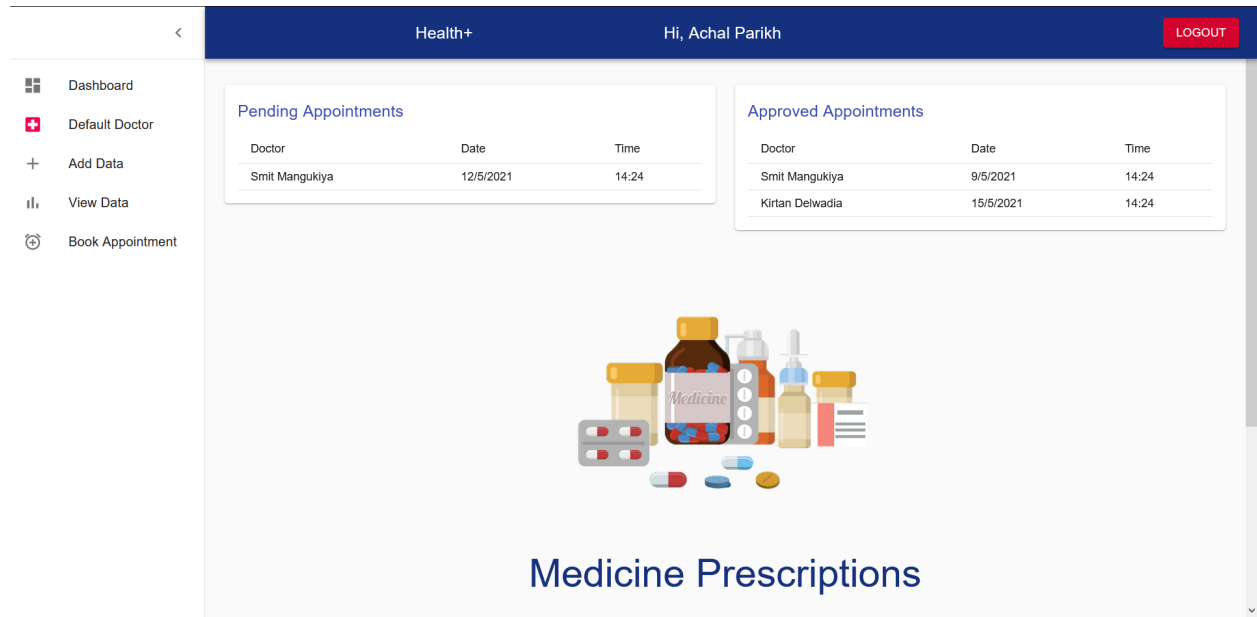
The image shows the same 'Sign up' form, but the Contact Number field now contains '12345'. A modal dialog box is displayed with the message 'Please enter a valid email' and an 'OK' button. The 'SIGN UP' button and the 'Already have an account? Sign in' link are still visible.



The image shows the same 'Sign up' form, but the Email Address field now contains 'test21@gmail.com' and the Contact Number field contains '12345'. A modal dialog box is displayed with the message 'Please enter a valid name' and an 'OK' button. The 'SIGN UP' button and the 'Already have an account? Sign in' link are still visible.



- After Logging, display dashboard



TEST 4:

View data (graphs) :-

- After addition of data, the graph should be generated and along with the time at which it was entered.



TEST 5: Add Data:

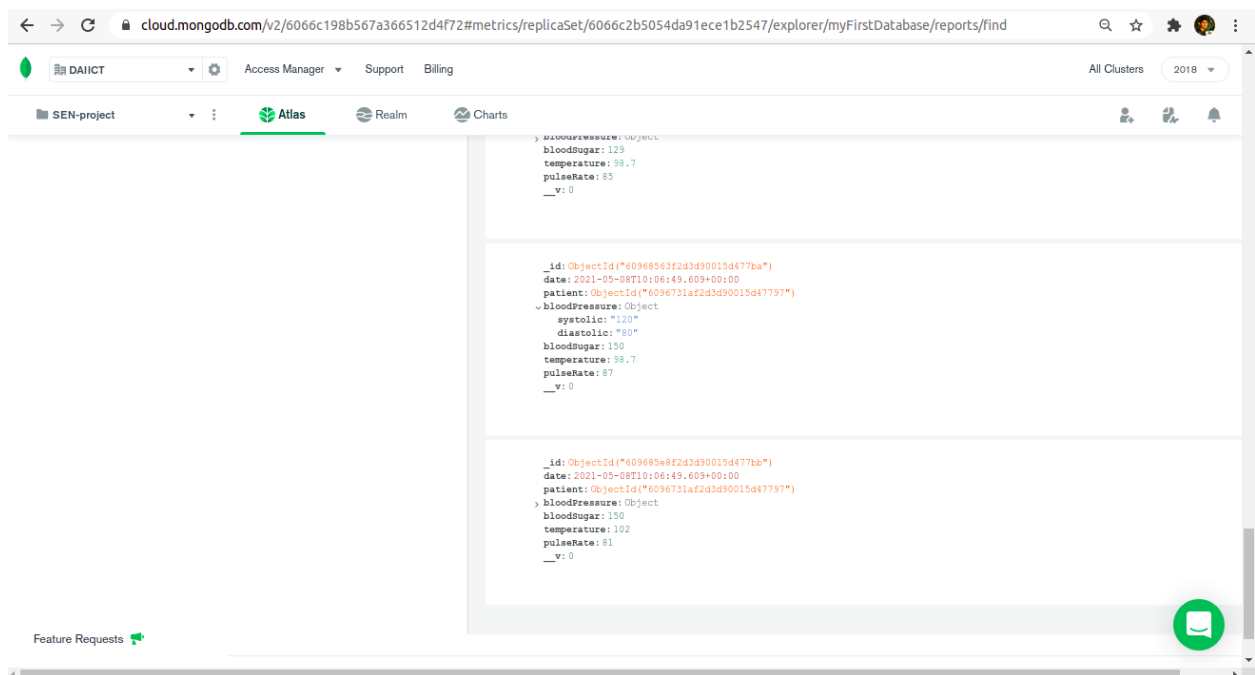
- If data is within the threshold, then we should get the message that the patient is healthy.

The screenshot shows the Health+ app interface. At the top, there's a dark blue header with a menu icon, the text "Health+", the user name "Hi, Achal Parikh", and a "LOGOUT" button. Below the header is a sidebar with icons for home, add, list, and clock. The main content area features an illustration of a doctor and a patient, followed by the title "Report Form". Below the title is a form with the following fields and values:

Blood Pressure Systolic	120	Blood Pressure Diastolic	80
Blood Sugar	150		
Temperature(in Fahrenheit)	98.7		
Pulse Rate	87		

At the bottom of the form is a red "SUBMIT" button. Below the form, there are two dark grey notification boxes: "Data Successfully sent" and "Voila, you seem to be Healthy".

- After addition, data will be stored in database



- Here Valid will mean that the patient is fine and doesn't need medical attention now.
- Invalid means that the person is unhealthy and mail will be sent to the doctor.

Equivalence class :-

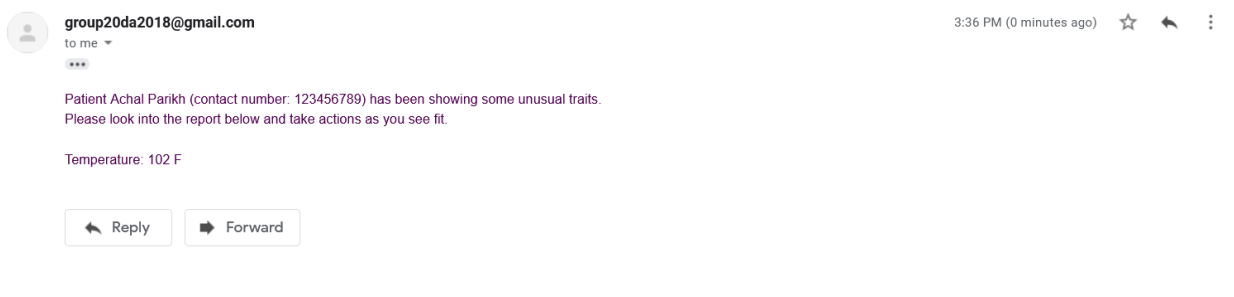
- 1) D1 :- BloodPressure Systolic between 90-140(both inclusive) or empty [valid]
- 2) D2 :- BloodPressure Diastolic between 60-100(both inclusive) or empty[valid]
- 3) D3 :- PulseRate between 60-100(both inclusive) or empty [valid]
- 4) D4 :- Temperature between 95-101(both inclusive) or empty [valid]
- 5) D5 :- BloodSugar between 70-180(both inclusive) or empty [valid]

Boundary value :-

Parameter	Invalid	Valid	Valid	Invalid
BloodPressure Systolic	89	90	140	141
BloodPressure Diastolic	59	60	100	101
PulseRate	59	60	100	101
Temperature	94	95	101	102
BloodSugar	69	70	180	181

TEST 6:

- If any of the values exceeds the the threshold, then send an email



- Display message that the patient needs to visit the doctor

Health+

Hi, Achal Parikh

LOGOUT

+

+

+

Report Form

Blood Pressure Systolic

120

Blood Pressure Diastolic

80

Blood Sugar

150

Temperature(in Fahrenheit)

102

Pulse Rate

81

SUBMIT

Data Successfully sent

Gaffer, you need to see your doctor

TEST 7 :

Book appointment (patient)

- The patient should be able to select the date and time on which he wants to book an appointment and that request should be sent to the doctor.

Health+

Hi, Achal Parikh

LOGOUT

+

+

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Available Doctors

Smit Mangukiya

smitmangukiya@gmail.com

SELECT DATE AND TIME

Date picker dialog

05/14/2021

Time picker

06:00 PM

APPOINTMENT

Kirtan Delwadia

kirtandelwadia@gmail.com

SELECT DATE AND TIME

Appointment Request Sent

TEST 8:

Medical Prescriptions(patient) :

- The patient should be shown the details of the medicine prescribed by the doctor, when he is required to take the medicine and for how long he should take it.


Health+

Hi, Achal Parikh

LOGOUT

+

il



Medicine Prescriptions

Paracetamol

Dr. Kirtan Delwadia

Prescribed Till: 13/5/2021

Morning : ✓

Afternoon : ✗

Night : ✓

Levo-cetizine

Dr. Kirtan Delwadia

Prescribed Till: 13/5/2021

Morning : ✓

Afternoon : ✗

Night : ✓

Prozac

Dr. Smit Mangukiya

Prescribed Till: 31/5/2021

Morning : ✗

Afternoon : ✗

Night : ✓

TEST 9:

Request of appointment (doctor) :

- When the patient request for an appointment, that should be visible to the doctor, and he/she should be given option to accept or reject it.

Health+

Hi, Dr. Kirtan Delwadia

LOGOUT

Dashboard

View Data

Appointment Requests

Pending Appointments

Patient	Date	Time	Accept	Reject
Dhruvit Jasapara	14/5/2021	15:7	✓	✗

Accept or reject the request,

- If accepted, display the appointment to patient and doctor

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Health+

Hi, Dr. Kirtan Delwadia

LOGOUT

Dashboard

View Data

Appointment Requests

Pending Appointments

Patient	Date	Time	Accept	Reject
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Health+

Hi, Dr. Kirtan Delwadia

LOGOUT

Dashboard

View Data

Appointment Requests

Approved Appointments

Patient	Date	Time
Achal Parikh	15/5/2021	14:24
Dhrumit Jasapara	11/5/2021	15:7
Dhrumit Jasapara	14/5/2021	15:7

Show past prescriptions

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Health+

Hi, Dr. Kirtan Delwadia

LOGOUT

Dashboard

View Data

Appointment Requests

Patient List

Name: Achal Parikh

Email: achalparikh@gmail.com

Contact: 123456789

Address: A10, DAIICT

City: Ahmedabad

SHOW PAST REPORTS

VIEW MEDICINE PRESCRIPTION

ADD MEDICINE PRESCRIPTION

Name: Dhrumit Jasapara

Email: dhrumitjasapara@gmail.com

Contact: 123456798

Address: A11 DAIICT

City: Gandhinagar

SHOW PAST REPORTS

VIEW MEDICINE PRESCRIPTION

ADD MEDICINE PRESCRIPTION

Name: Hardik

Email: hardik@gmail.com

Contact: 123456789

Address: A12 DAIICT

City: Gandhinagar

SHOW PAST REPORTS

VIEW MEDICINE PRESCRIPTION

ADD MEDICINE PRESCRIPTION

Paracetamol

Dr. Kirtan Delwadia

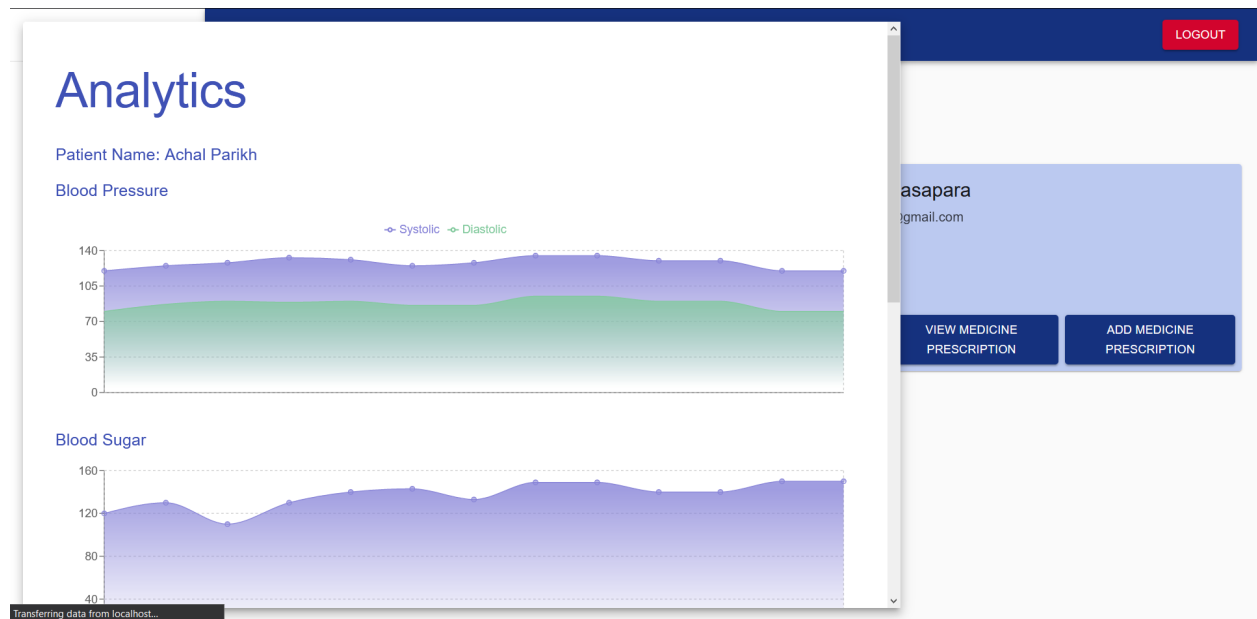
Prescribed Till: 13/5/2021

Morning : ✓

Afternoon : ✗

Night : ✓

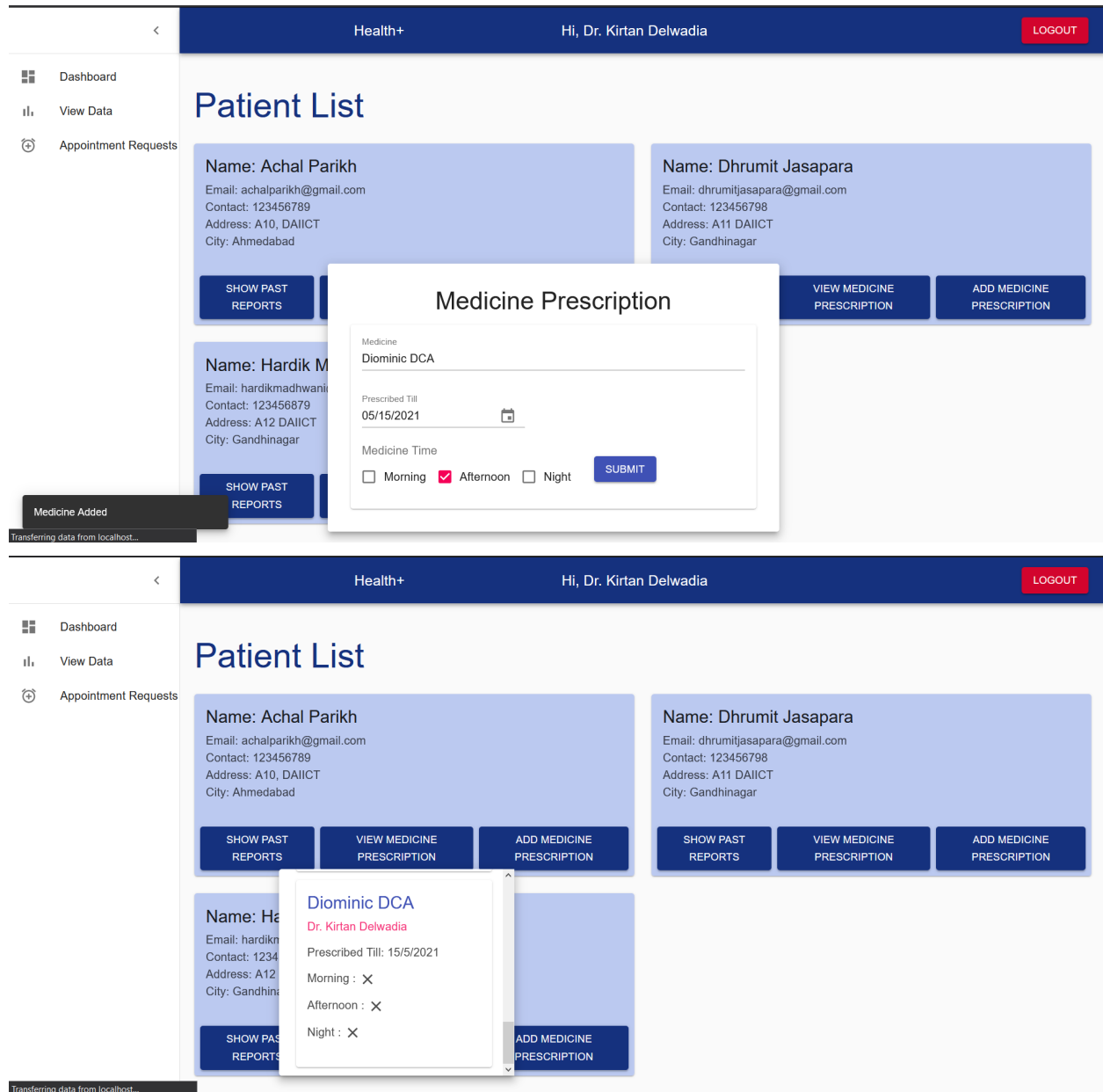
Record of parameters of the patient:



TEST 11:

Addition of medicine to the patient :

- After looking at the parameters of the patient, the doctor should be able to prescribe medicine to the patient and the details of when to take it should be added in the patients side.



TEST 12:

Show list of doctors and update the doctor in the patient:

- A list of doctors working in the hospital should be shown to the patients so they can decide under which doctor they want to take the treatment .

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Health+

Hi, Hardik Madhwani

LOGOUT

Dashboard

Default Doctor

Add Data

View Data

Book Appointment

No default doctor set yet.

We would suggest you to select a default doctor, so that a doctor can be notified if there is some problems with your health conditions.

List of Doctors

Smit Mangukiya

smitmangukiya@gmail.com

SELECT AS DEFAULT

Kirtan Delwadia

kirtandelwadia@gmail.com

SELECT AS DEFAULT

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Health+

Hi, Hardik Madhwani

LOGOUT

Dashboard

Default Doctor

Add Data

View Data

Book Appointment

Your default doctor's email id is smitmangukiya@gmail.com

List of Doctors

Smit Mangukiya

smitmangukiya@gmail.com

SELECT AS DEFAULT

Kirtan Delwadia

kirtandelwadia@gmail.com

SELECT AS DEFAULT

Default Doctor Changed