

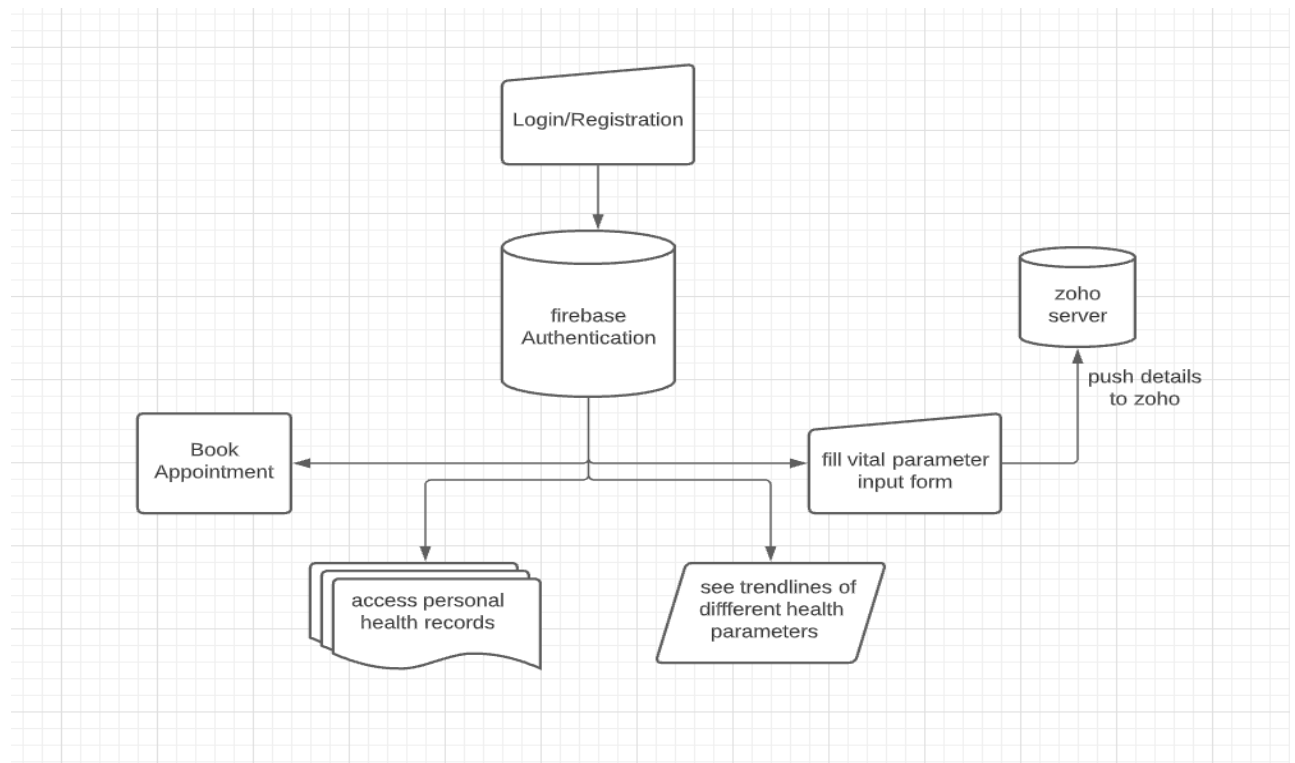
## Product Design

**Team 40, Remote pregnancy monitor, Ananya, Bhargavi, Kiran, Rohan**

### Design Overview

## Architectural design


We're building a mobile application using flutter and firebase. Flutter is a tool that allows us to build cross-platform applications with one programming language and a single codebase. Firebase helps us in authentication, storing users' details, etc. we would also interact with the Zoho server because we need to fetch trendlines and display them to respective users.



[https://lucid.app/lucidchart/bf8dbe53-bb50-4a2d-9b08-3e31a018b145/edit?invitationId=inv\\_92a2f773-2676-4b62-86a2-d011e543139f](https://lucid.app/lucidchart/bf8dbe53-bb50-4a2d-9b08-3e31a018b145/edit?invitationId=inv_92a2f773-2676-4b62-86a2-d011e543139f)

## System interfaces

## User Interface



Login

Create Account

Full Name

Email

Phone number


Password


Confirm Password

☐ Patient

☐ Doctor

Sign Up

 Sign Up with google



☐ Patient

☐ Doctor

☐ Admin


Email

Password

Login

Don't have an account? [SignUp](#)

Forgot Password



Email

Reset Password





Contact us on Whatsapp

Book Appointment

Investigation Panel



Investigation Panel



APPOINTMENTS

CLINIC

ONLINE

MOTHER'S VITALS UPLOAD


Mother's Email

Name of the Mother

Current Week of Pregnancy

Your Expected Delivery Date

Your last Visit to Clinic



Your Profile

person

sudheer k

phone

9292929292

email

sudheer.p@gmail.com

person

list

search

## Model

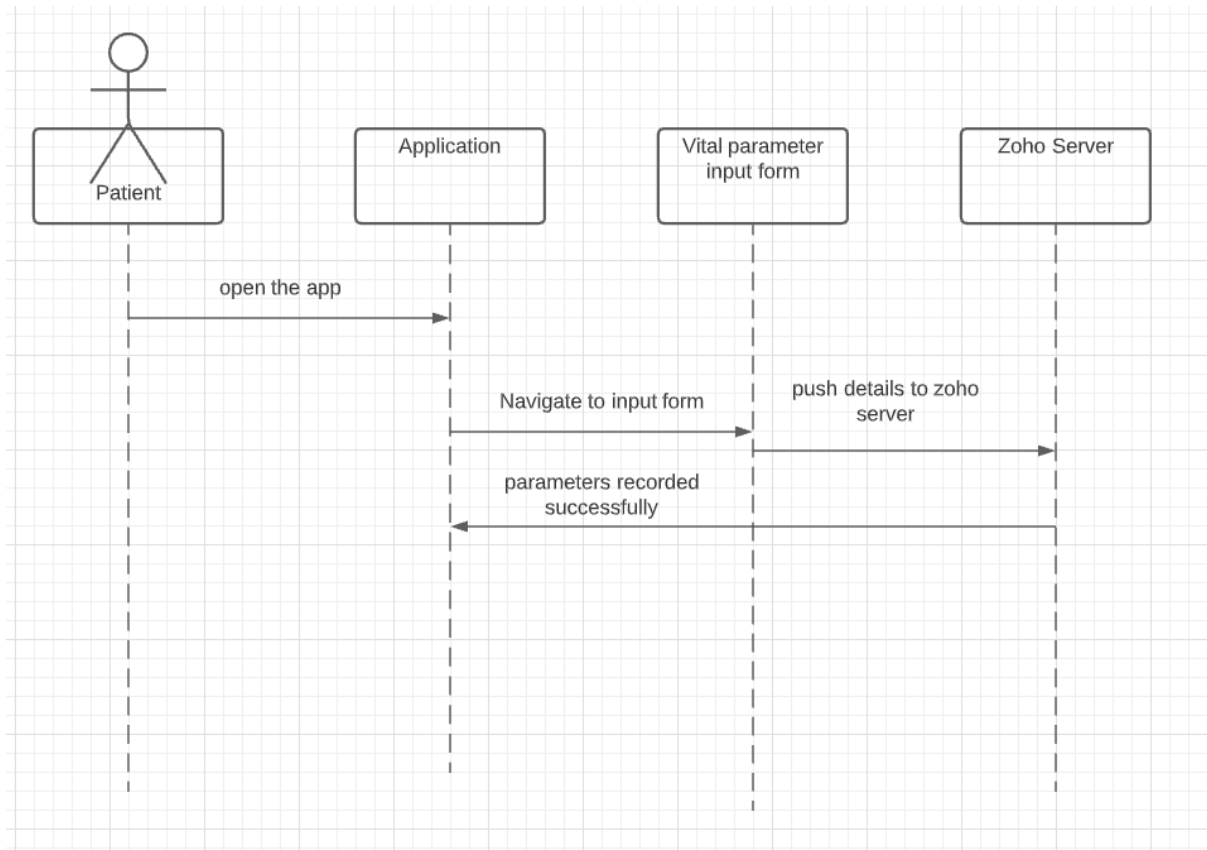
[https://lucid.app/lucidchart/334cd6f1-474e-48a3-87a6-4e1db2bf1c2d/edit?invitationId=inv\\_8132e995-8c62-42ff-af31-30a6bc94b754](https://lucid.app/lucidchart/334cd6f1-474e-48a3-87a6-4e1db2bf1c2d/edit?invitationId=inv_8132e995-8c62-42ff-af31-30a6bc94b754)

Doctor	<p>Doctor State</p> <ul style="list-style-type: none"> <li>• The class is responsible for storing doctor's details (email ID and the password)</li> </ul> <p><b>Class behaviour</b></p> <ul style="list-style-type: none"> <li>• The class, in real world, has the following methods: <ul style="list-style-type: none"> <li>◦ <b>login()</b>: authenticates a doctor's login</li> </ul> </li> </ul>
Patient	<p>Patient State</p> <p>The class is responsible for storing patient's details (email ID and the password)</p> <p><b>Class behaviour</b></p> <ul style="list-style-type: none"> <li>• The class, in real world, has the following methods: <ul style="list-style-type: none"> <li>◦ <b>login()</b>: authenticates a patient's login</li> </ul> </li> </ul>
User	<p><b>Class behaviour</b></p> <ul style="list-style-type: none"> <li>• The class, in real world, has the following methods: <ul style="list-style-type: none"> <li>◦ <b>register()</b>: user registers as patient or doctor</li> </ul> </li> </ul>

## Sequence Diagram(s)

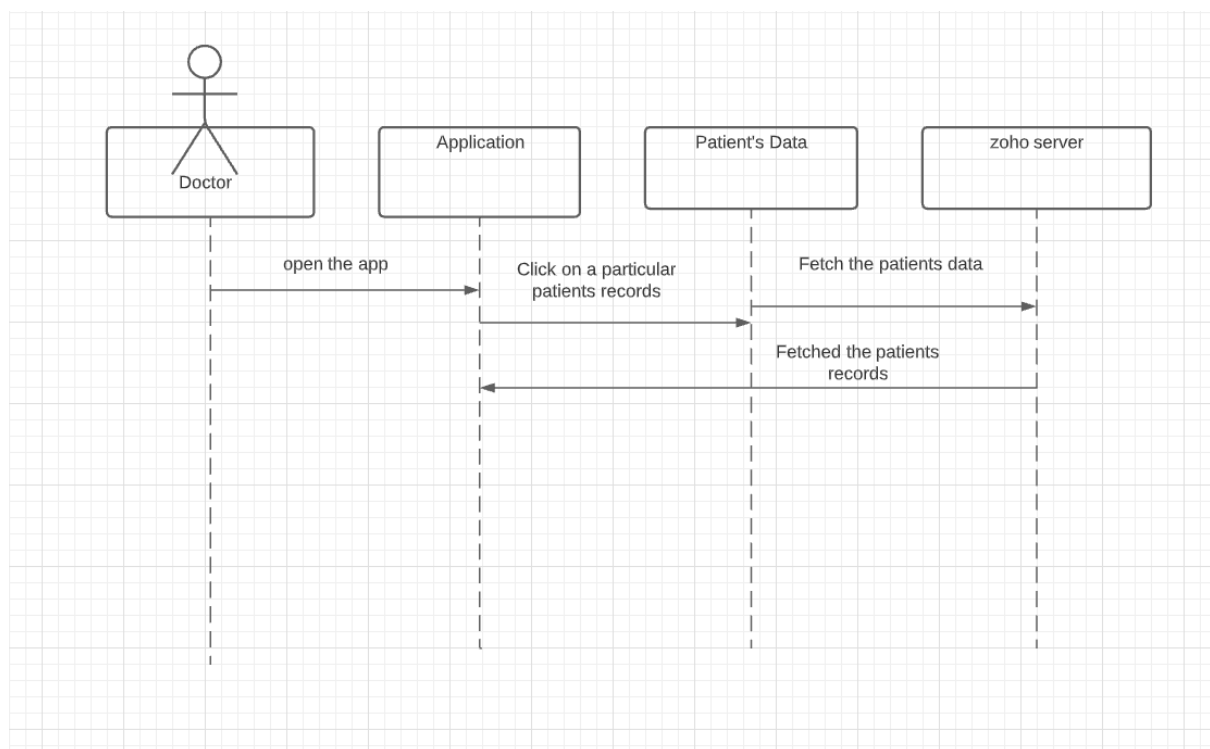
**USE CASE 1:** Patient logs into application and fills vital input form

[https://lucid.app/lucidchart/0c68f51a-8b2b-462b-a59b-86d58fc1ee92/edit?invitationId=inv\\_56f55d80-8ed1-4987-9bb4-efc9d62dd053](https://lucid.app/lucidchart/0c68f51a-8b2b-462b-a59b-86d58fc1ee92/edit?invitationId=inv_56f55d80-8ed1-4987-9bb4-efc9d62dd053)



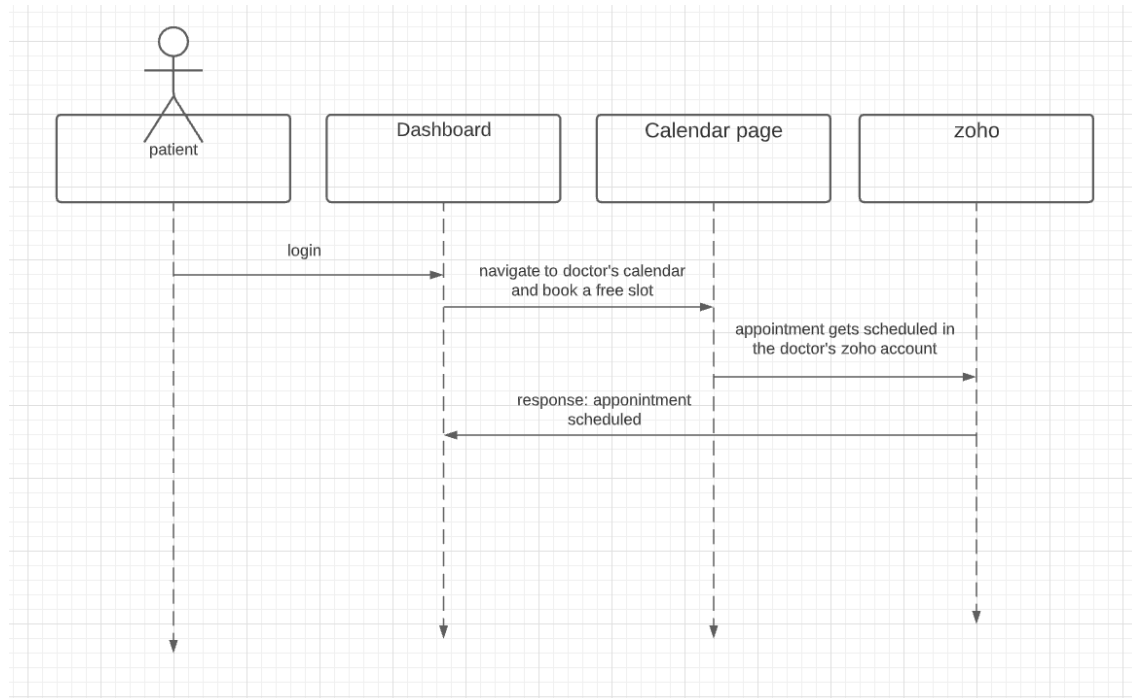
## USE CASE 2: Doctor checks trendlines of different health parameters

[https://lucid.app/lucidchart/e530cf1-dbe1-41f9-aec4-4d17ad86d91b/edit?invitationId=inv\\_c79788c7-1bee-415d-b346-2c218824d44b](https://lucid.app/lucidchart/e530cf1-dbe1-41f9-aec4-4d17ad86d91b/edit?invitationId=inv_c79788c7-1bee-415d-b346-2c218824d44b)



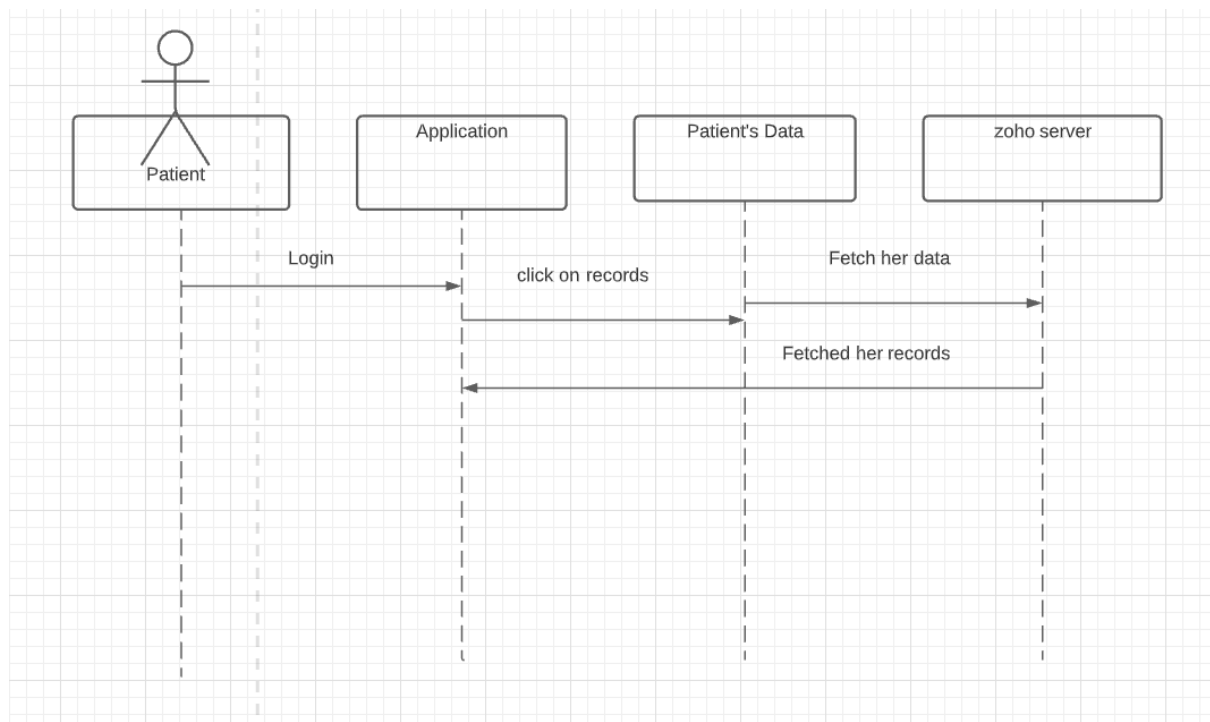
### USE CASE 3: patient books an appointment

[https://lucid.app/lucidchart/3d21302b-a286-48fa-9476-8353a5dd400a/edit?invitationId=inv\\_1c44f4fa-dcbc-418c-a73a-0cede717f59a](https://lucid.app/lucidchart/3d21302b-a286-48fa-9476-8353a5dd400a/edit?invitationId=inv_1c44f4fa-dcbc-418c-a73a-0cede717f59a)



### USE CASE 4: patient checks her records

[https://lucid.app/lucidchart/3e3d07a5-3da1-47fa-9241-51c3b6e9506f/edit?invitationId=inv\\_404be79c-5a4d-42ba-bbf9-703d18859d9f](https://lucid.app/lucidchart/3e3d07a5-3da1-47fa-9241-51c3b6e9506f/edit?invitationId=inv_404be79c-5a4d-42ba-bbf9-703d18859d9f)





## **Design Rationale**

### **Design Rationale 1:**

The original model structure for our application consisted of another role called “admin” which was eventually omitted in our first draft of the model structure. Admin is at the top of the hierarchy of our project. A patient can view only her records, A doctor can view all the patient records assigned to him, admin has the access to all the records of the patients. Introducing the admin role at the start increased the complexity of the application, so the client removed the admin role.

### **Design Rationale 2:**

Teleconsultation at first was a compulsory requirement of the project but later on it has become a low priority requirement because a new requirement chat with the hospital has been introduced.