



Department of Computer Science and Engineering

University of Chittagong

Course: CSE618 – Mobile App Development

A Report on Health Forum

Submitted by:

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Project Report on Android App

Forum

1. Introduction

The objective of this report is to develop a communicative platform that deals with health related information and queries for patients. There are many online social platforms but they are not sophisticated enough as they include many unwanted ads or videos. In our project, we develop an application that will eliminate outside distractions and will make the social platform based health-related communication more efficient. Our application is primarily based on Android as it is a leading platform nowadays. This report states detailed planning of our project like functions, features, architecture and various diagrams. It also includes future works and work flow of the project. The estimated budget for this project is about BDT. 200 thousands and the time frame is around 2 months. The primary version will be released in around 1 month.

This report consists of twelve sections. Second section describes the problem of the project. Section three states the solution, section four analyses the architecture of the Application. Features and facilities will be discussed in section five and section six to nine provide different UML Diagrams of the project. In section ten, we will visualize some snapshots of our app. Finally, Limitations and the future works are written in section eleven and twelve respectively .

2. Problem Statement

Our given problem was to develop an application that can play a role of a medium between the patients and doctors to discuss certain health issues.

3. Problem Solution

As a solution to the problem, we chose to develop a Medical health forum that can be used as a social platform among users who can be patients or the doctors. In the forum, one patient can post his/her health disorder and viewers who are supposed to be either doctors or patients are likely to interact with that post creator via direct chatting or commenting. Also, a blood Donation section is to be injected in the app so that one can find a matching blood donor in his/her emergency situations. To maintain these tasks, one user should have an account of his/her own. So, a user profile is to be created before having all the features of the application.

4. Architecture

We have used a 3-tier Architecture for our application. We have implemented the UI in XML, coded the program/application logic in Java and finally to have support in the back end, we have used Firestore Realtime database.

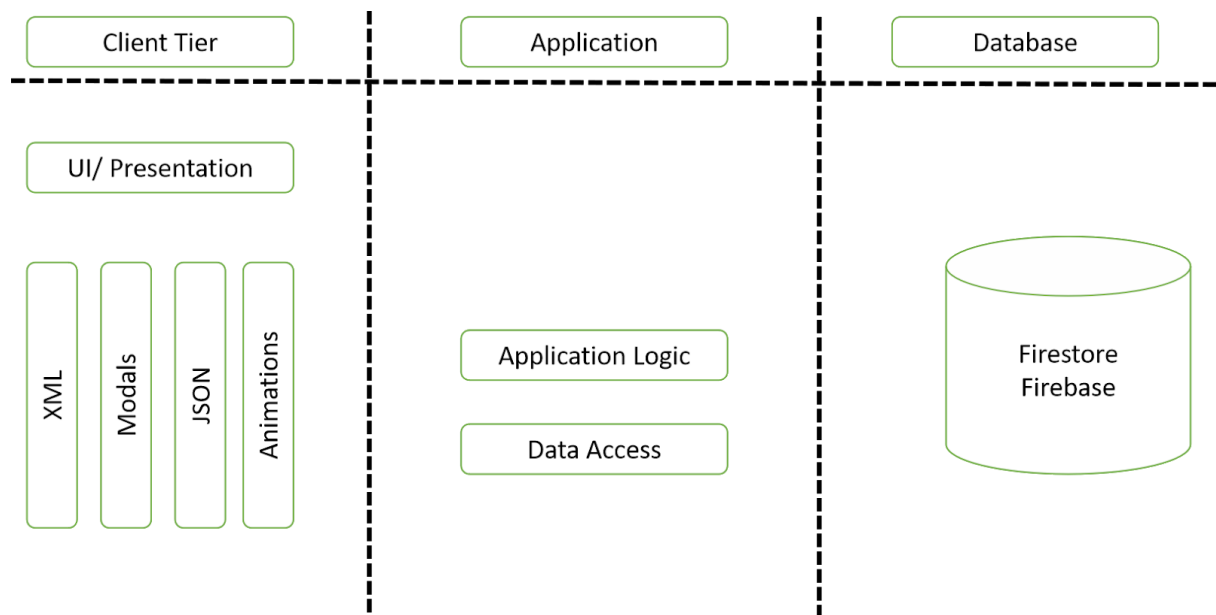


Figure: 3-tier Architecture

5. Features

The followings are the features of our android app:

- Sign In or Sign up before joining the Forum
- Redeem password facility
- Add Post to the forum
- See Posts from different user
- User Profile with updating facility
- Users' Personal Chatting option
- Like, Comment and Share features for posts
- Blood group info storing
- Blood Donor Finding
- Google Maps to track Donors
- Corona status checking In countries of the world
- Sending Notification via firebase cloud message.

6. Activity Diagram

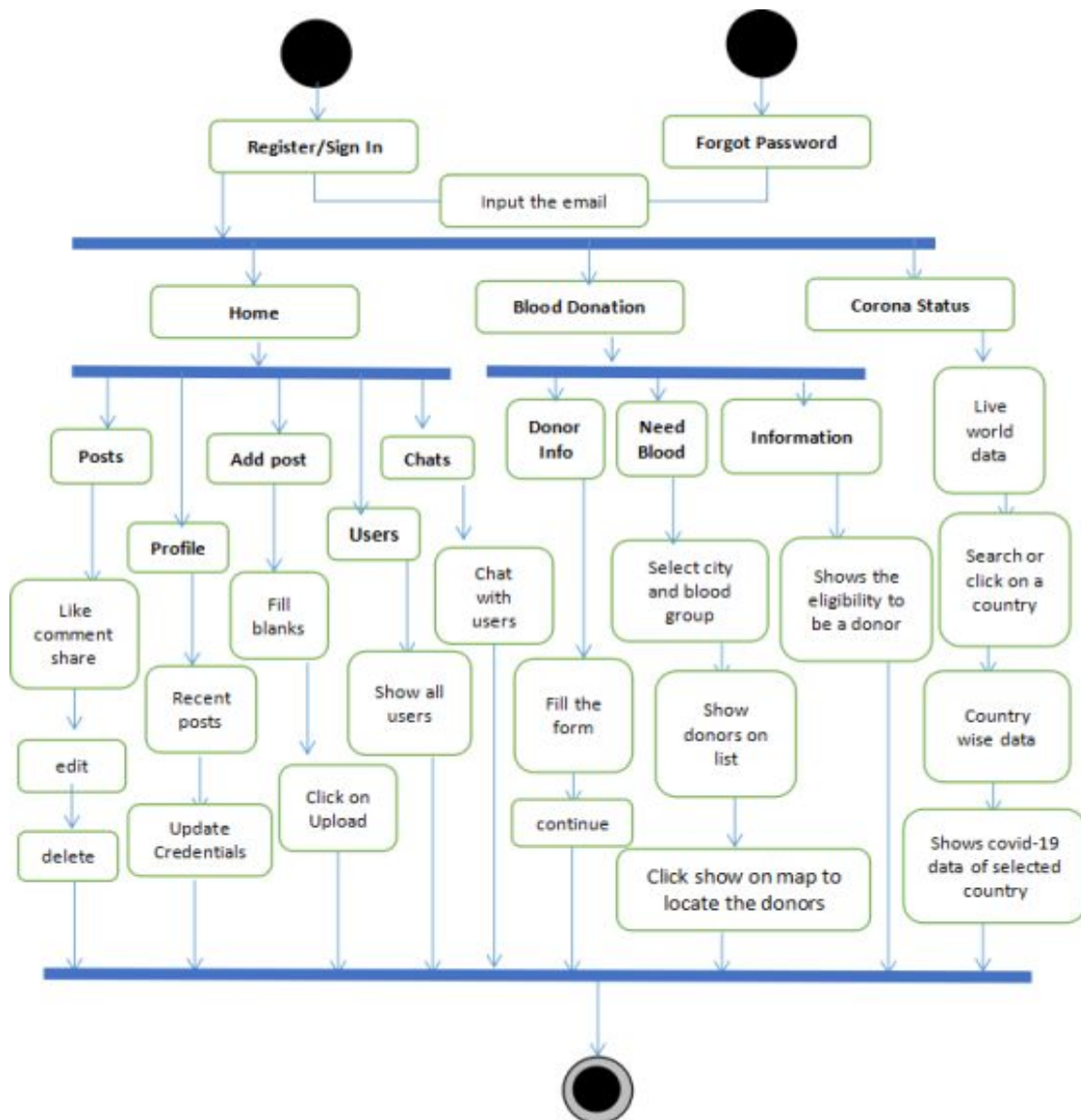


Figure: Activity Diagram

7. Class Diagram

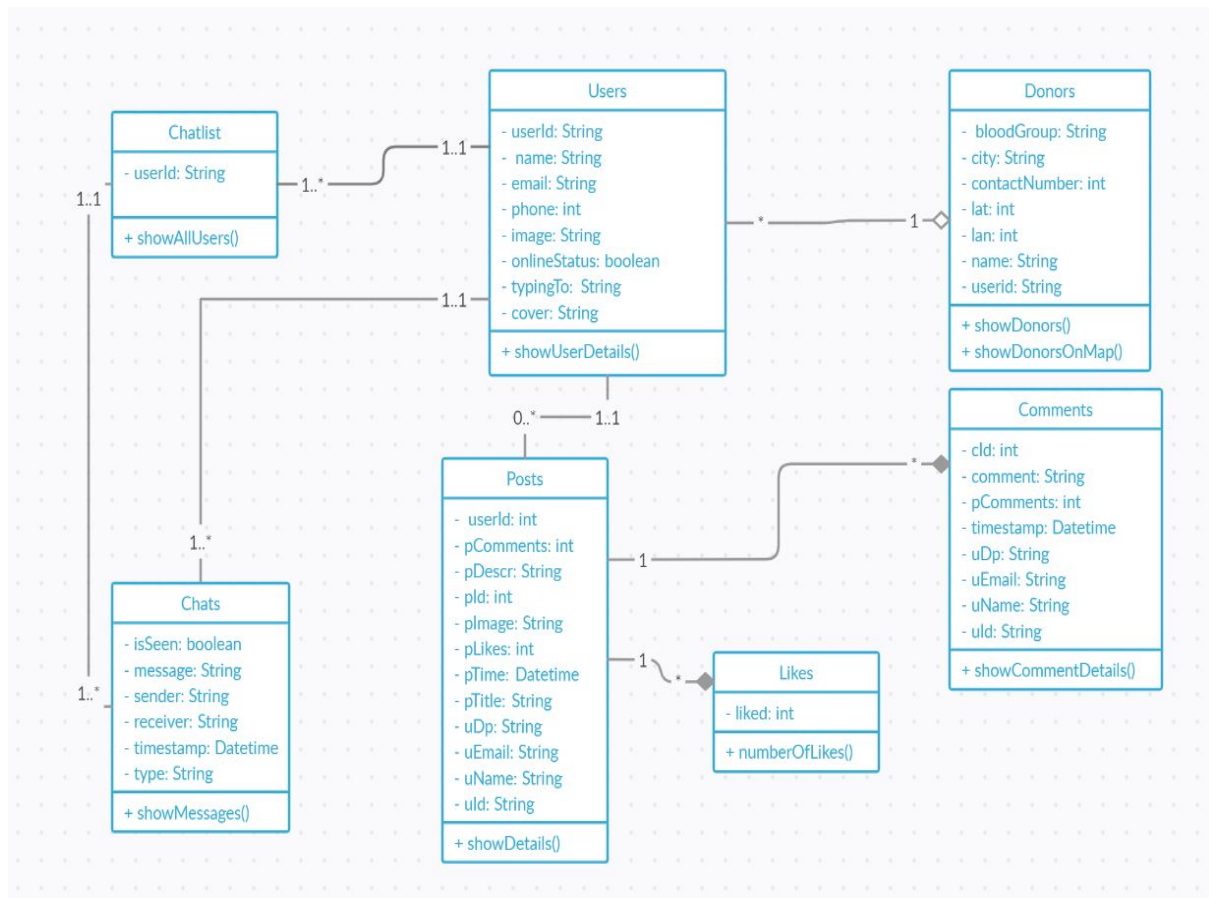


Figure: Class Diagram

8. Use Case Diagram

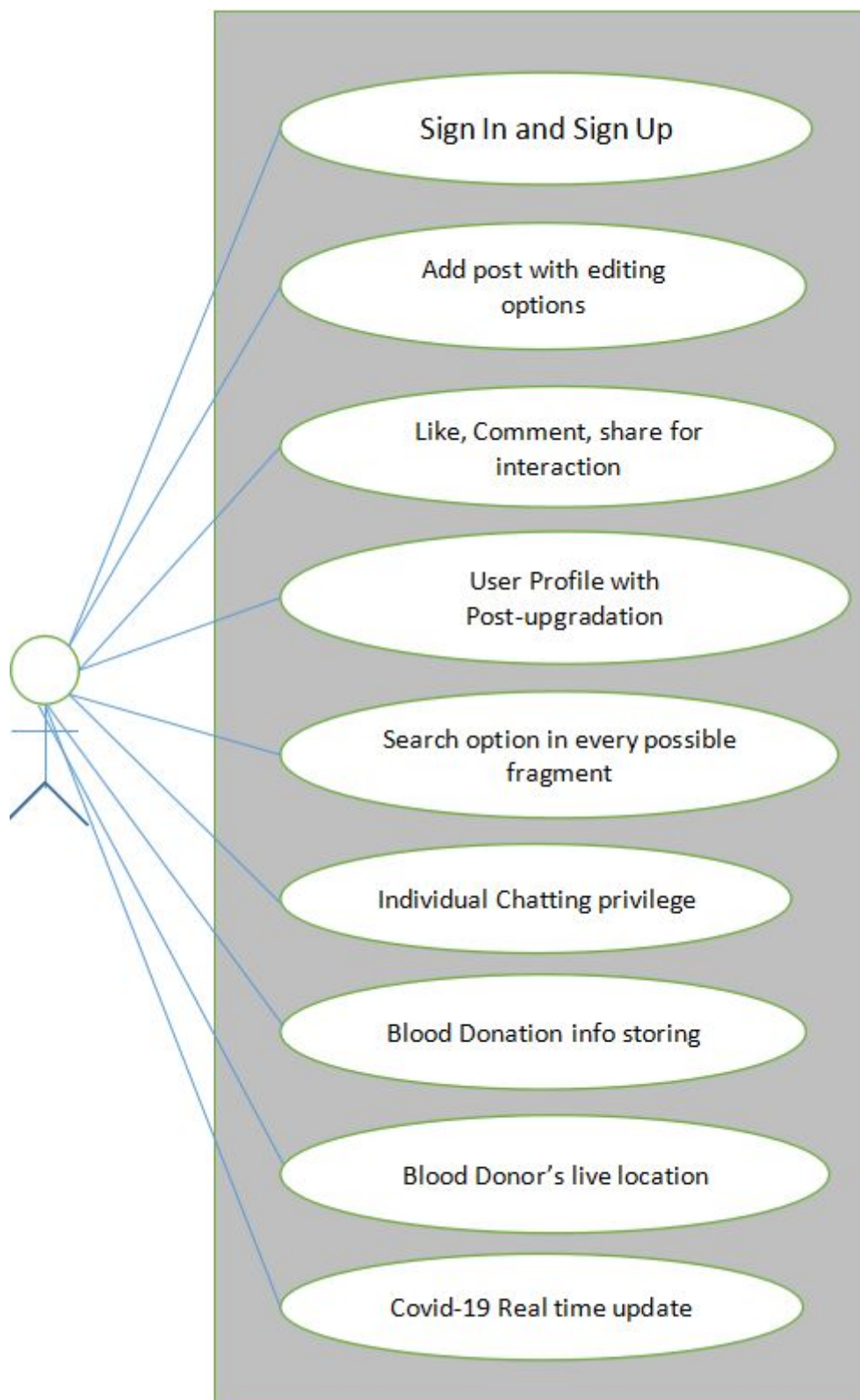
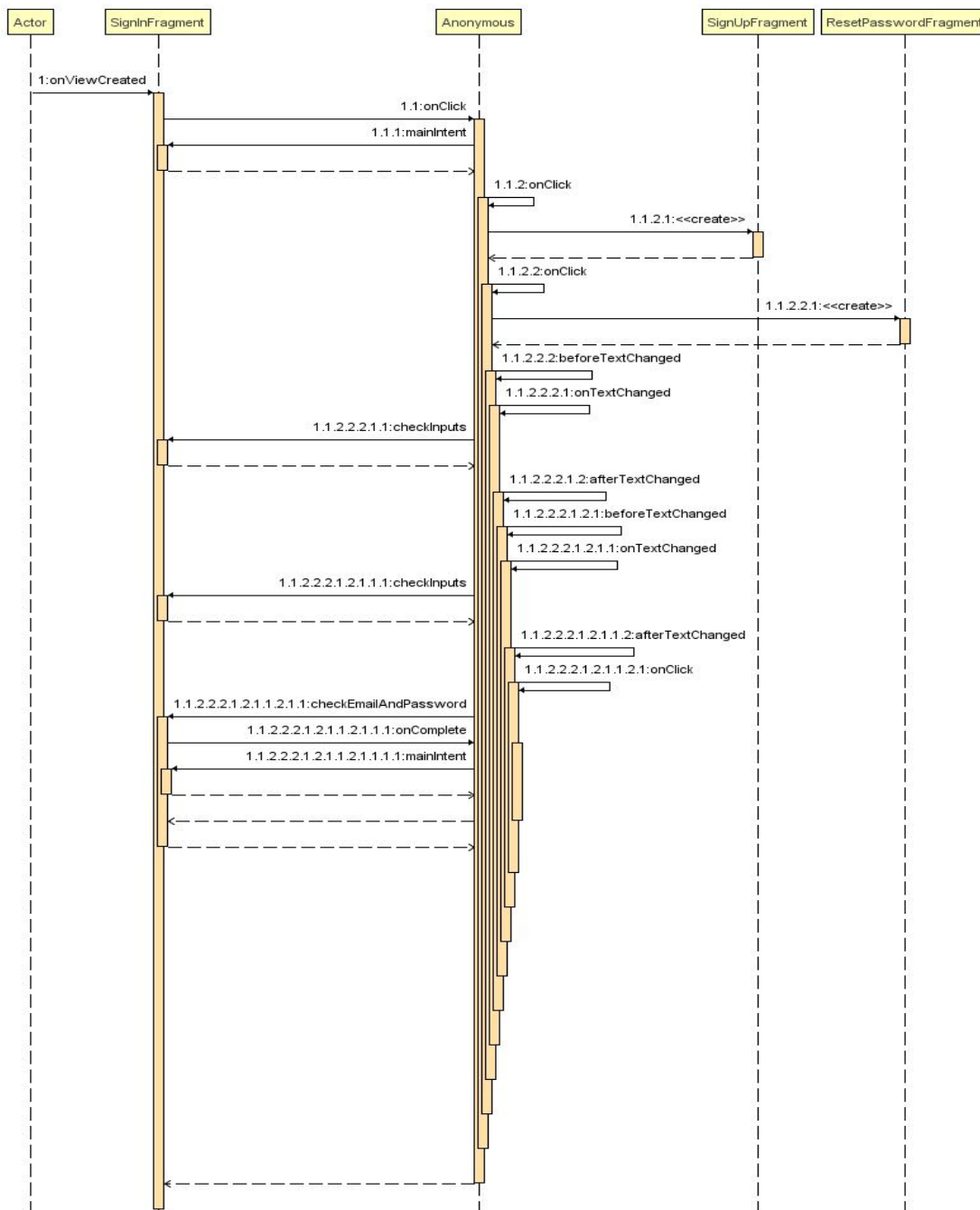


Figure: Use Case Diagram

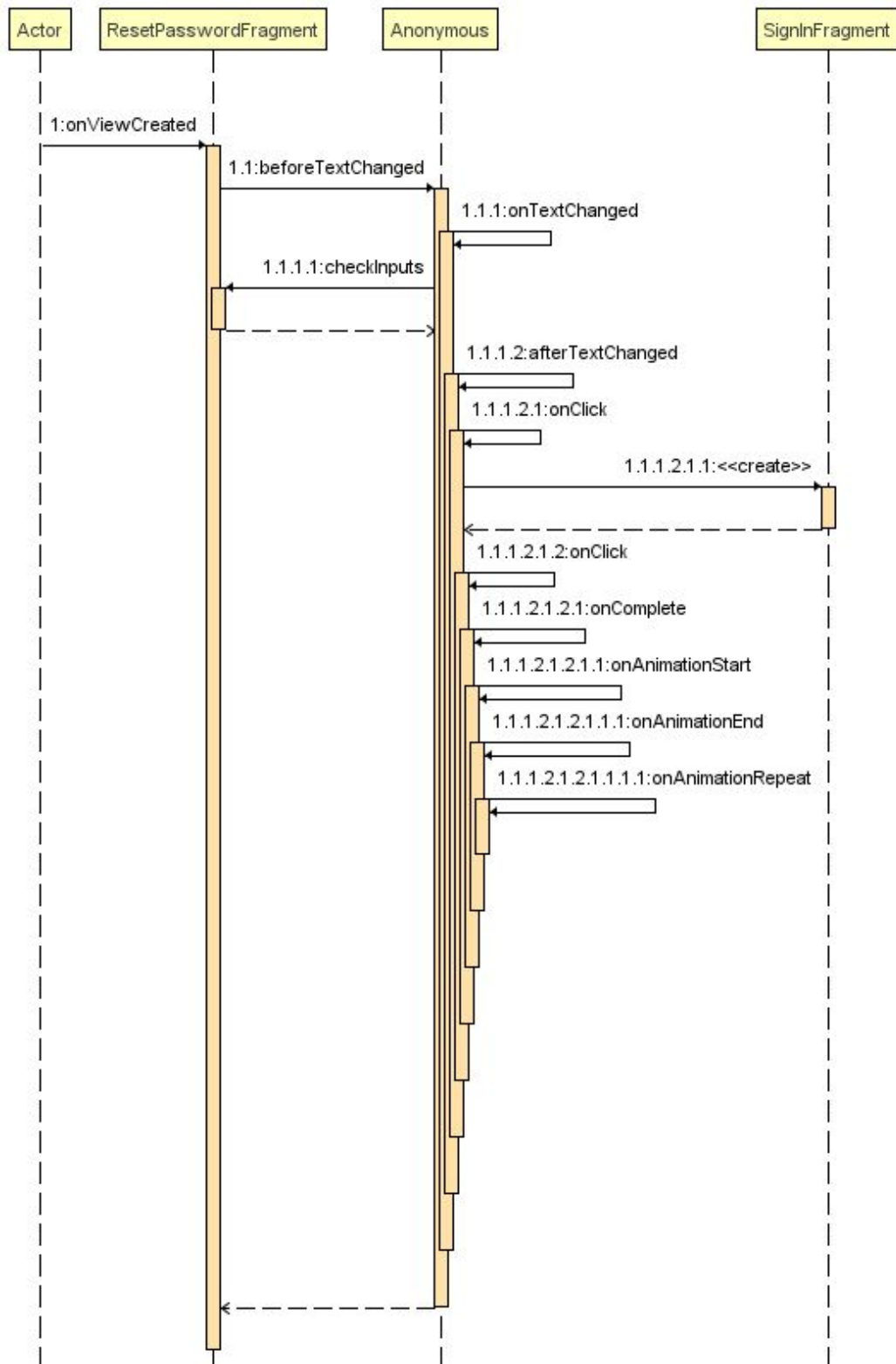
9. Sequence Diagram

Sign in Portion:

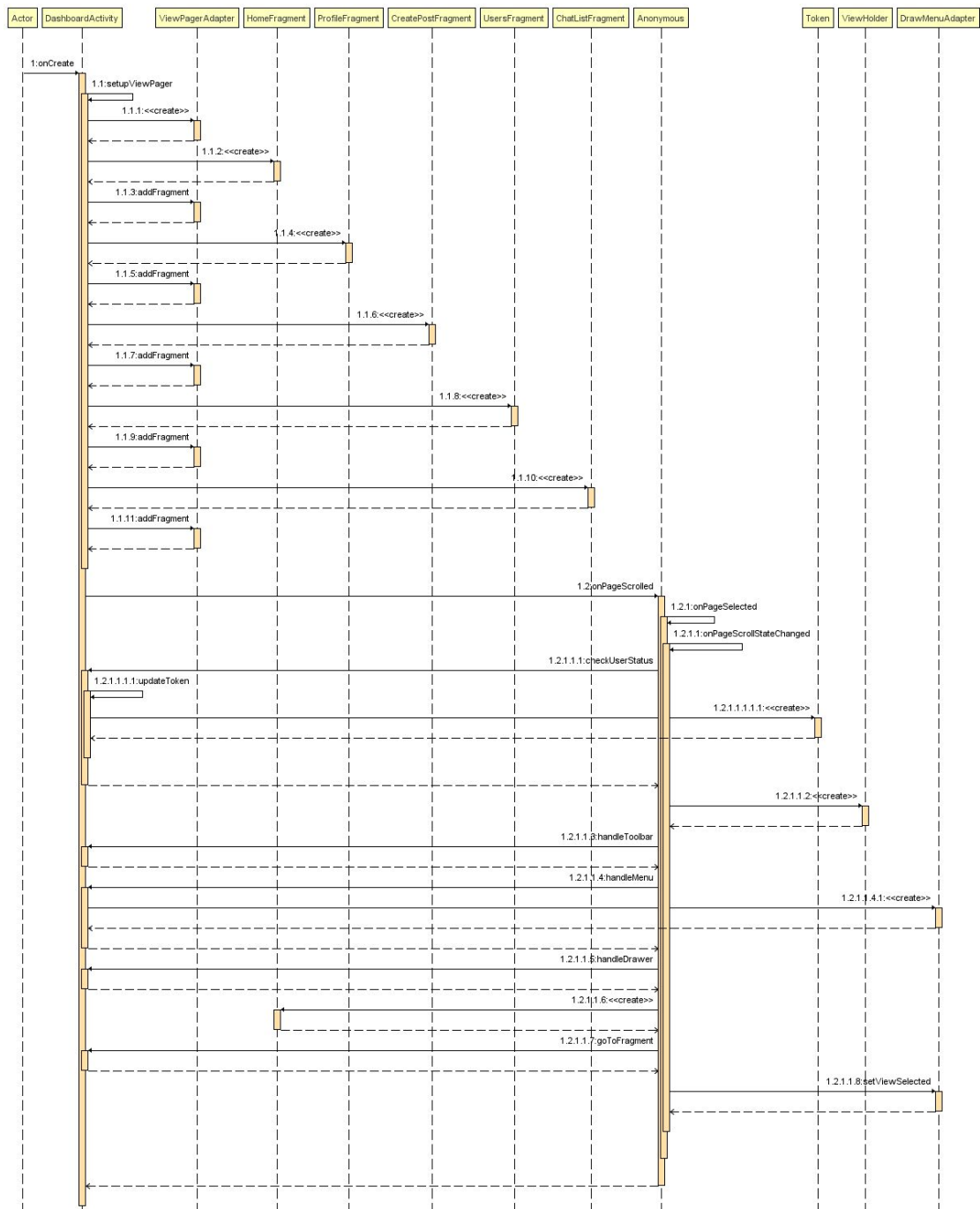


Sign up portion:

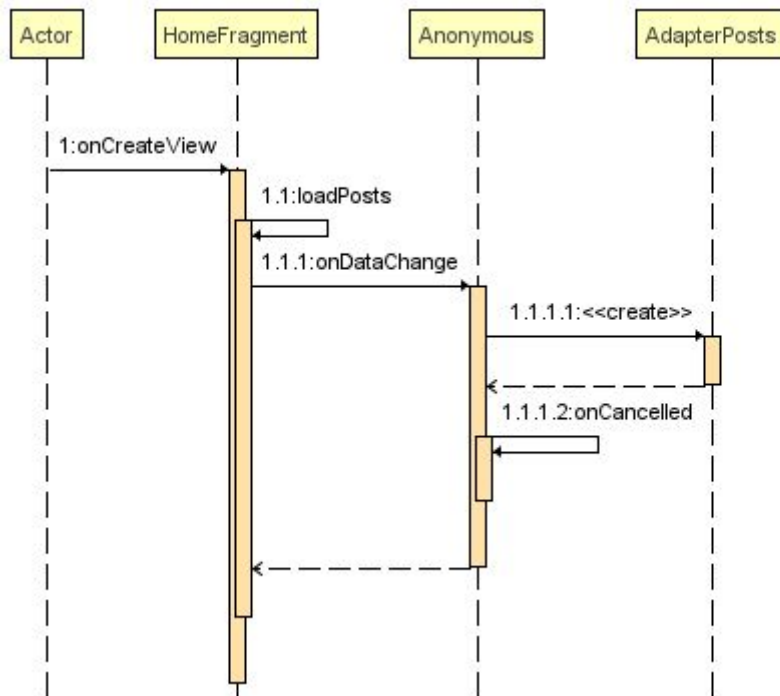




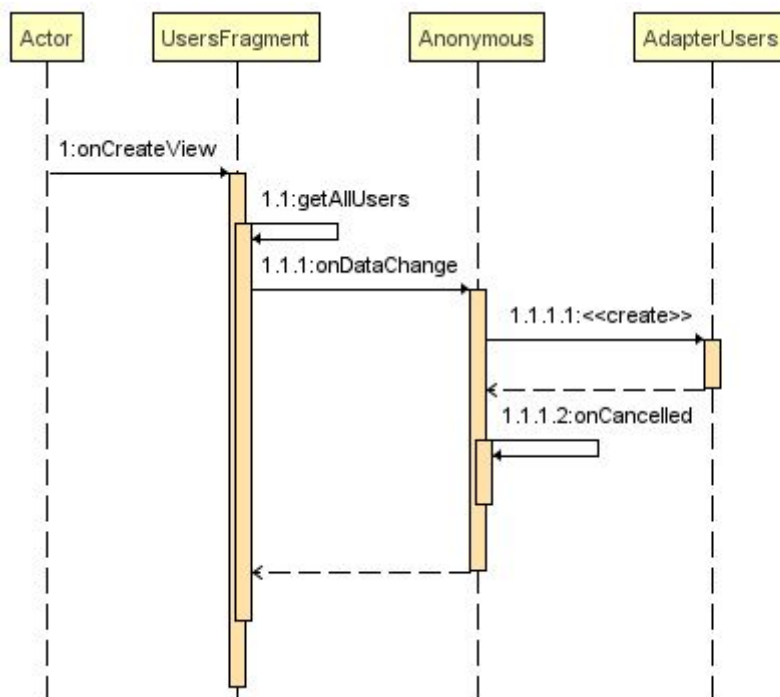
Dashboard:



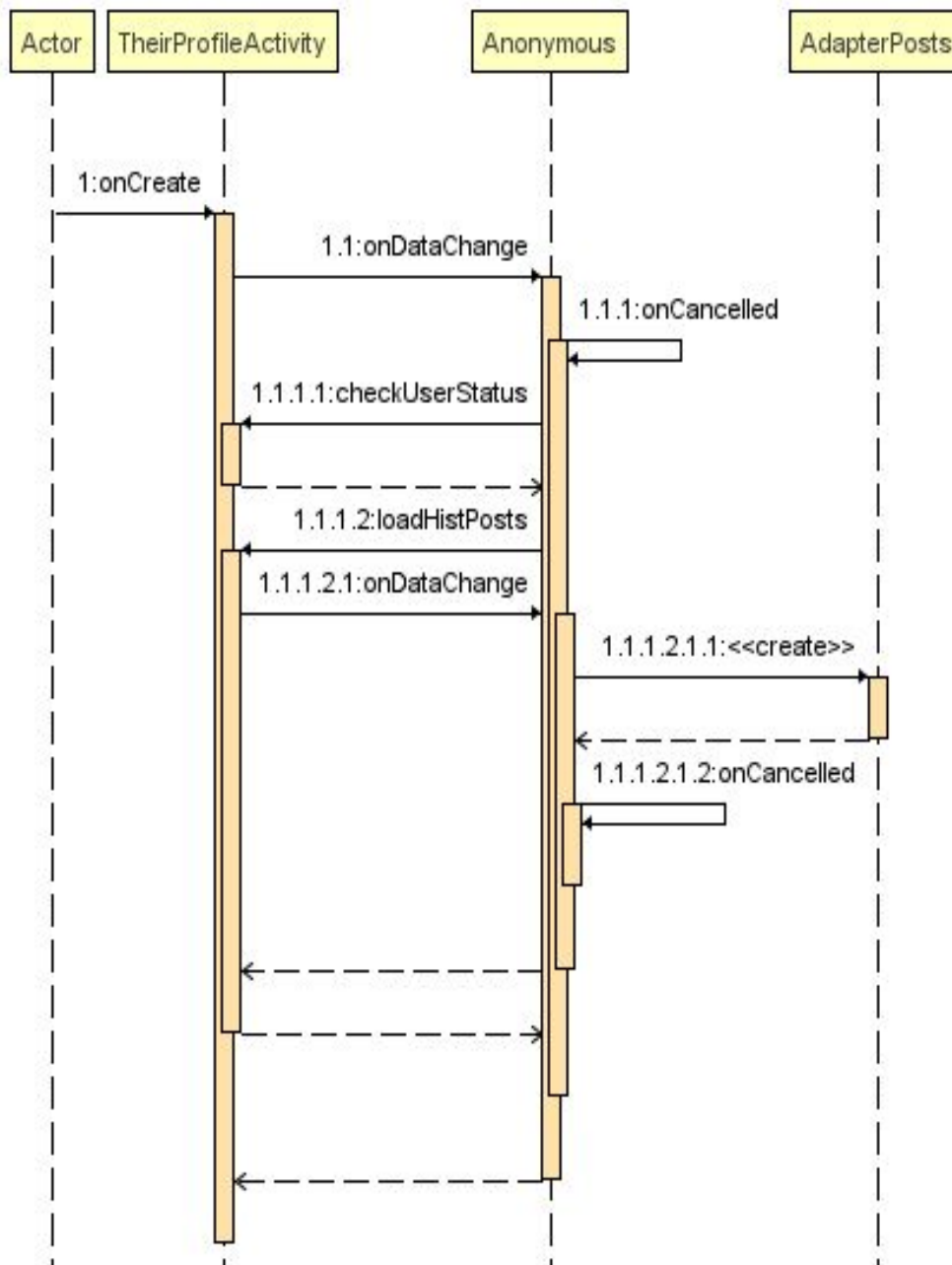
Home:



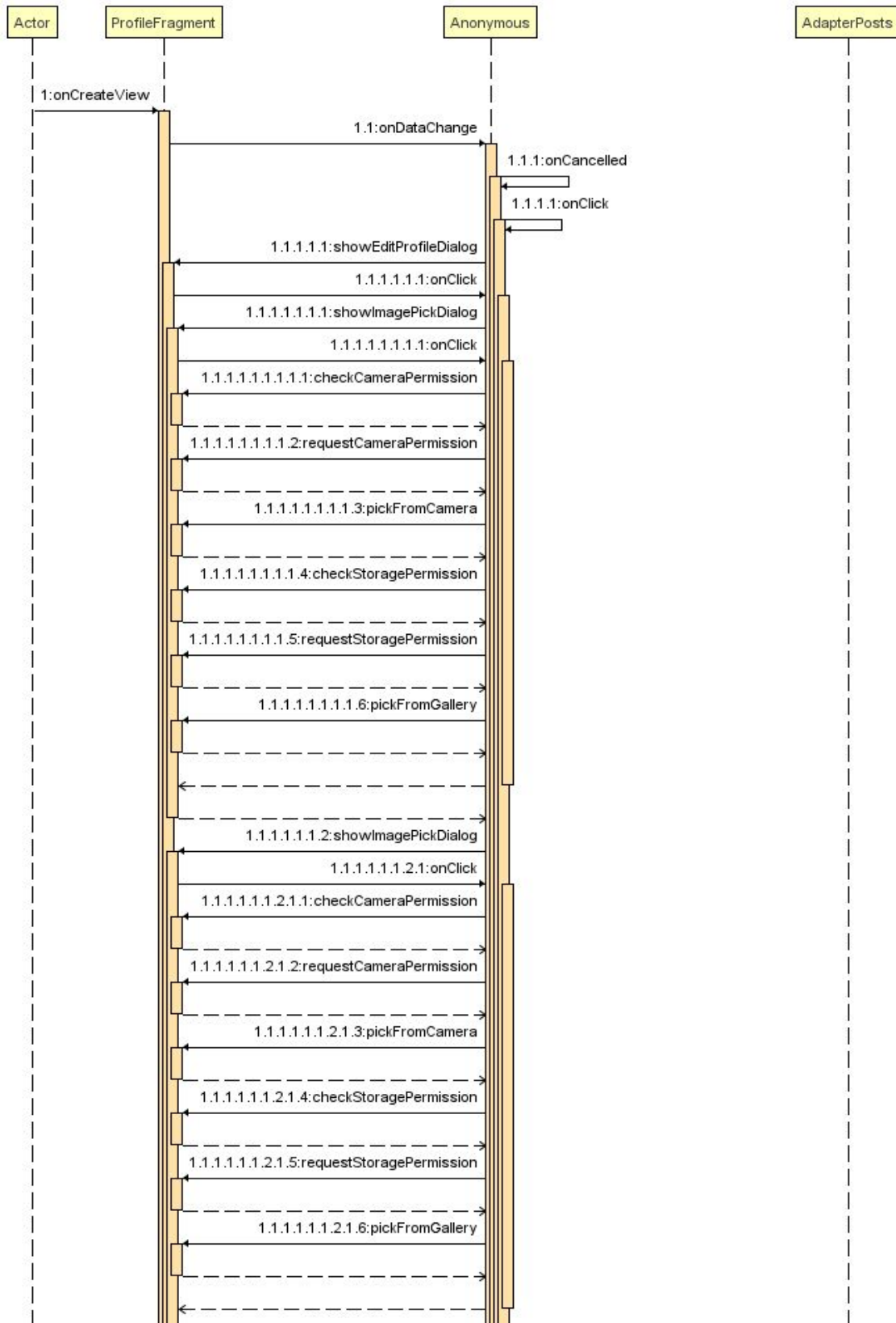
Users:

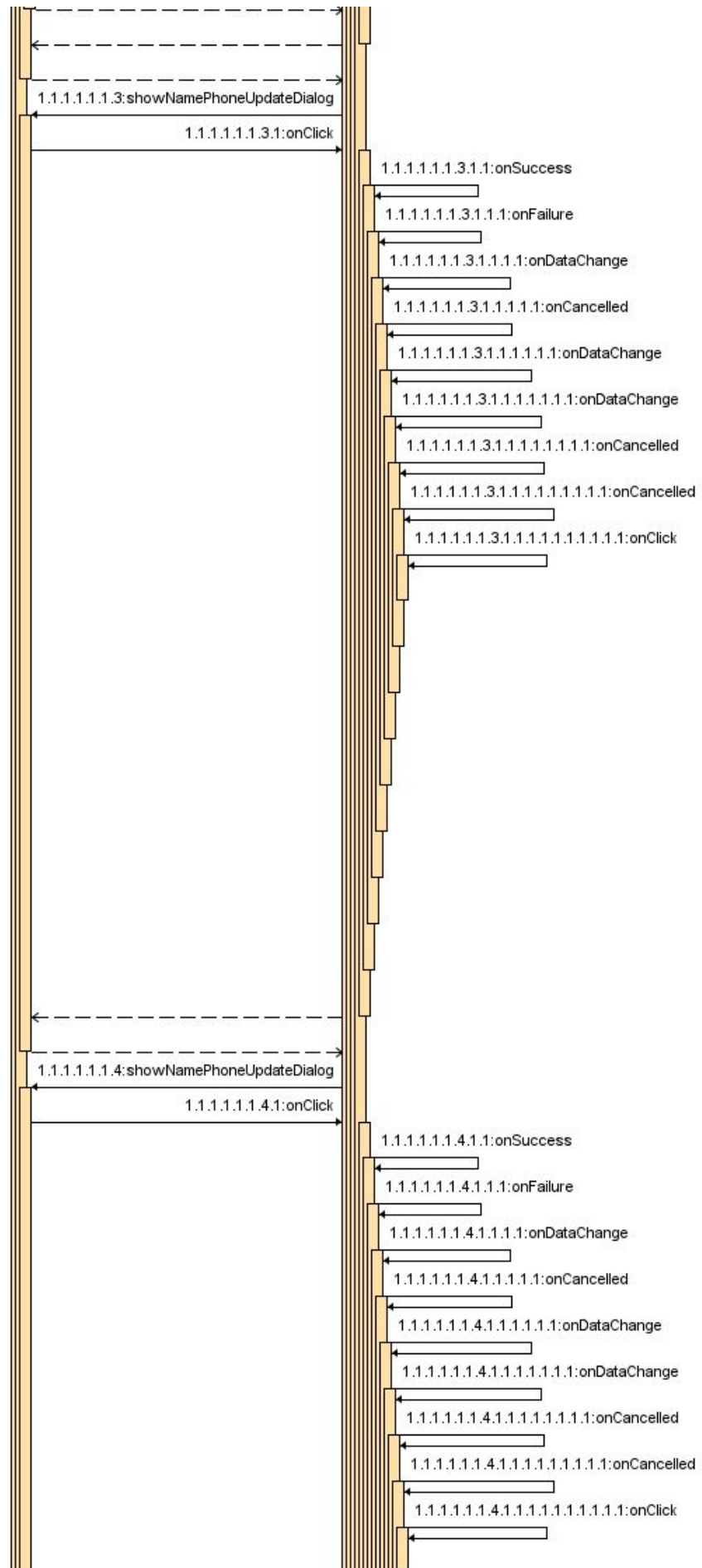


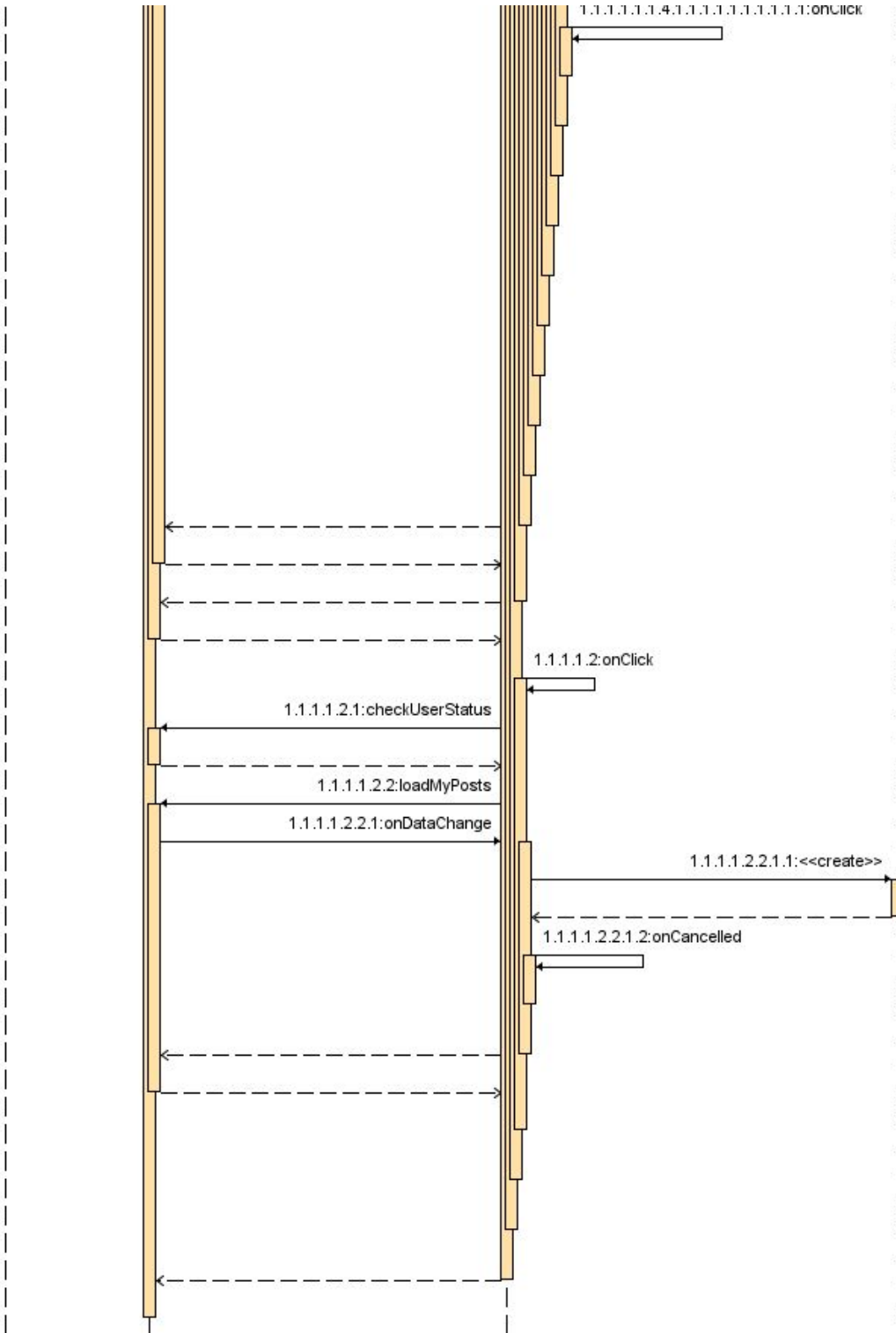
Their Profile:



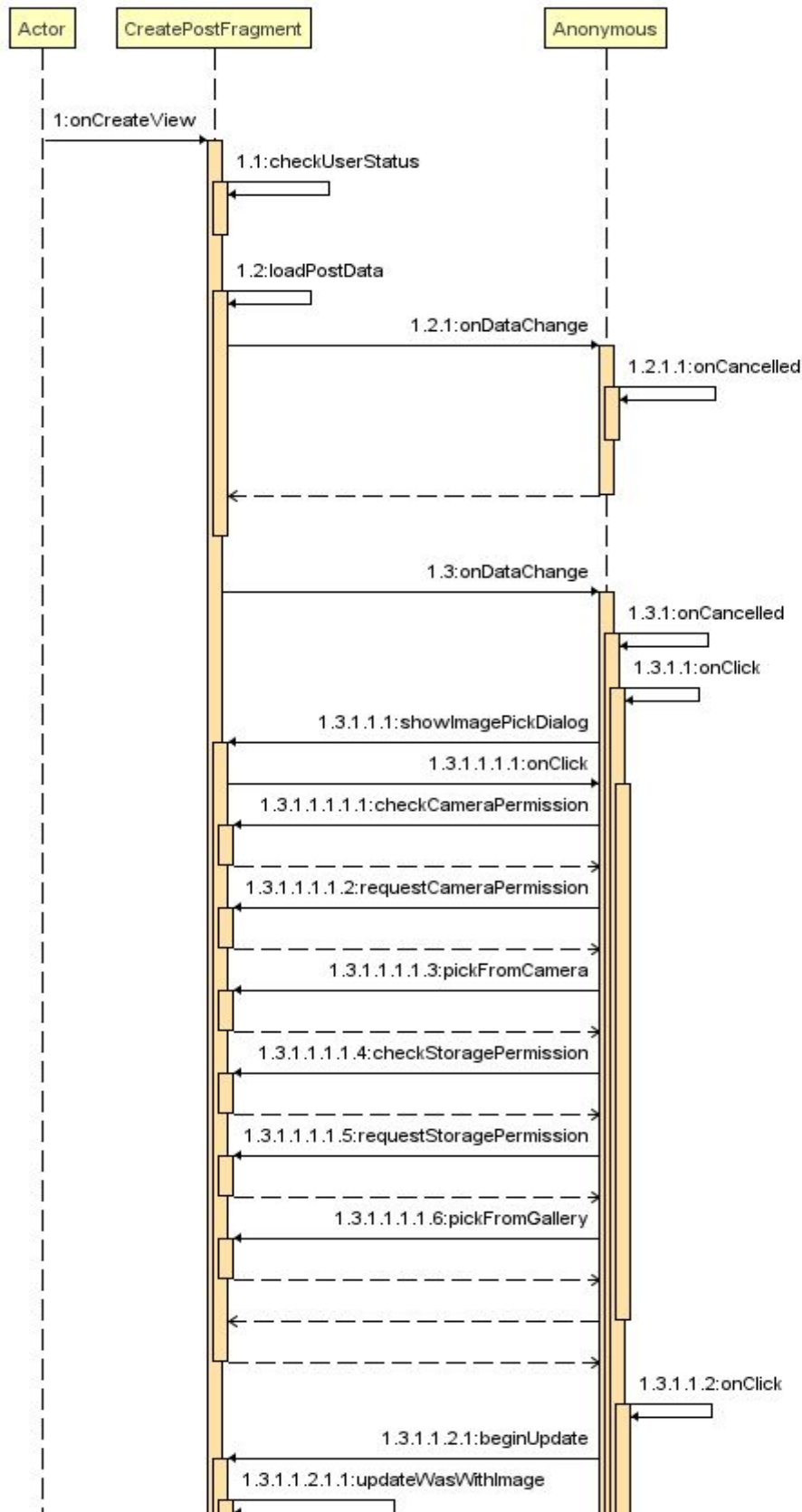
Profile:

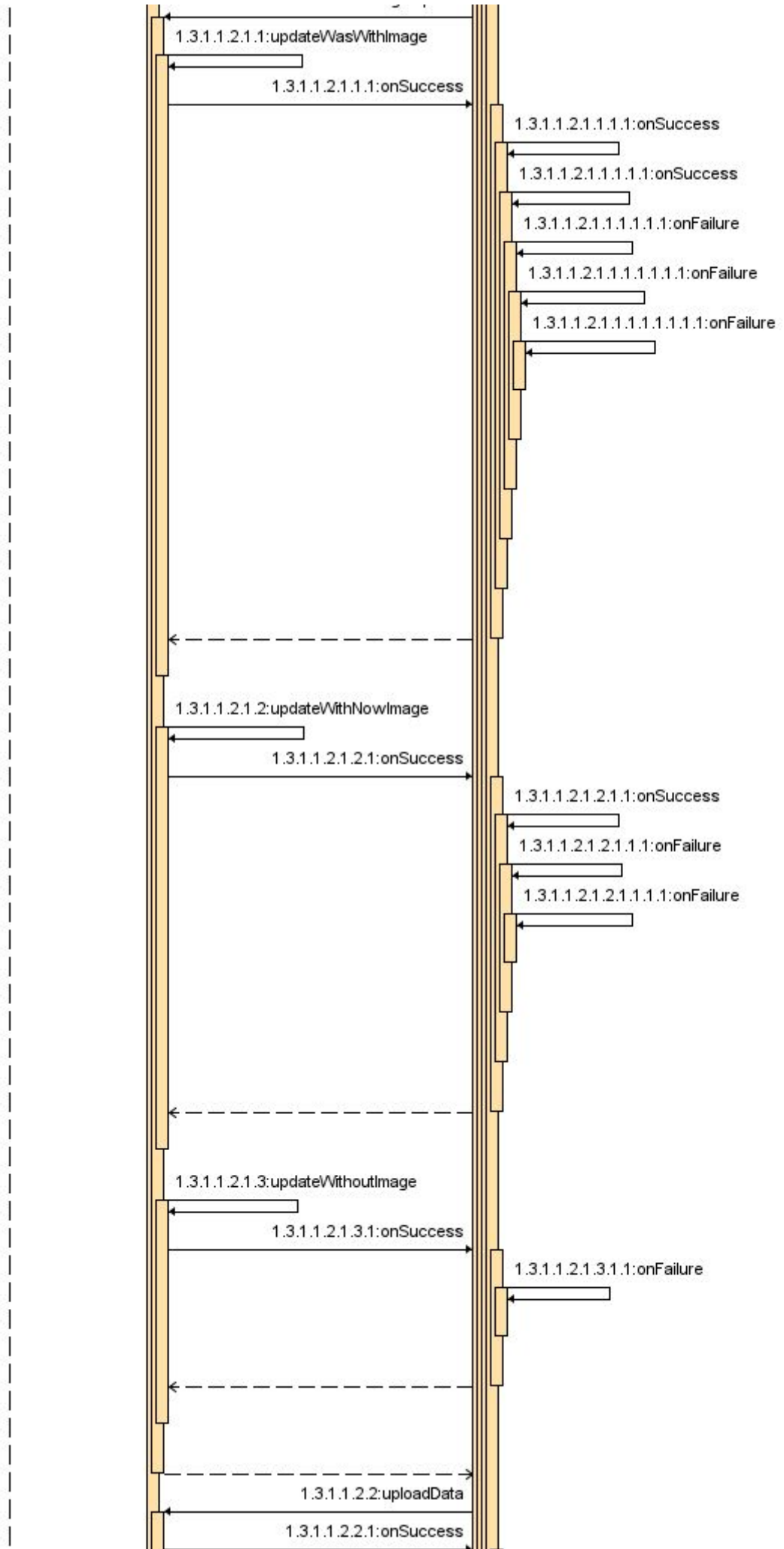


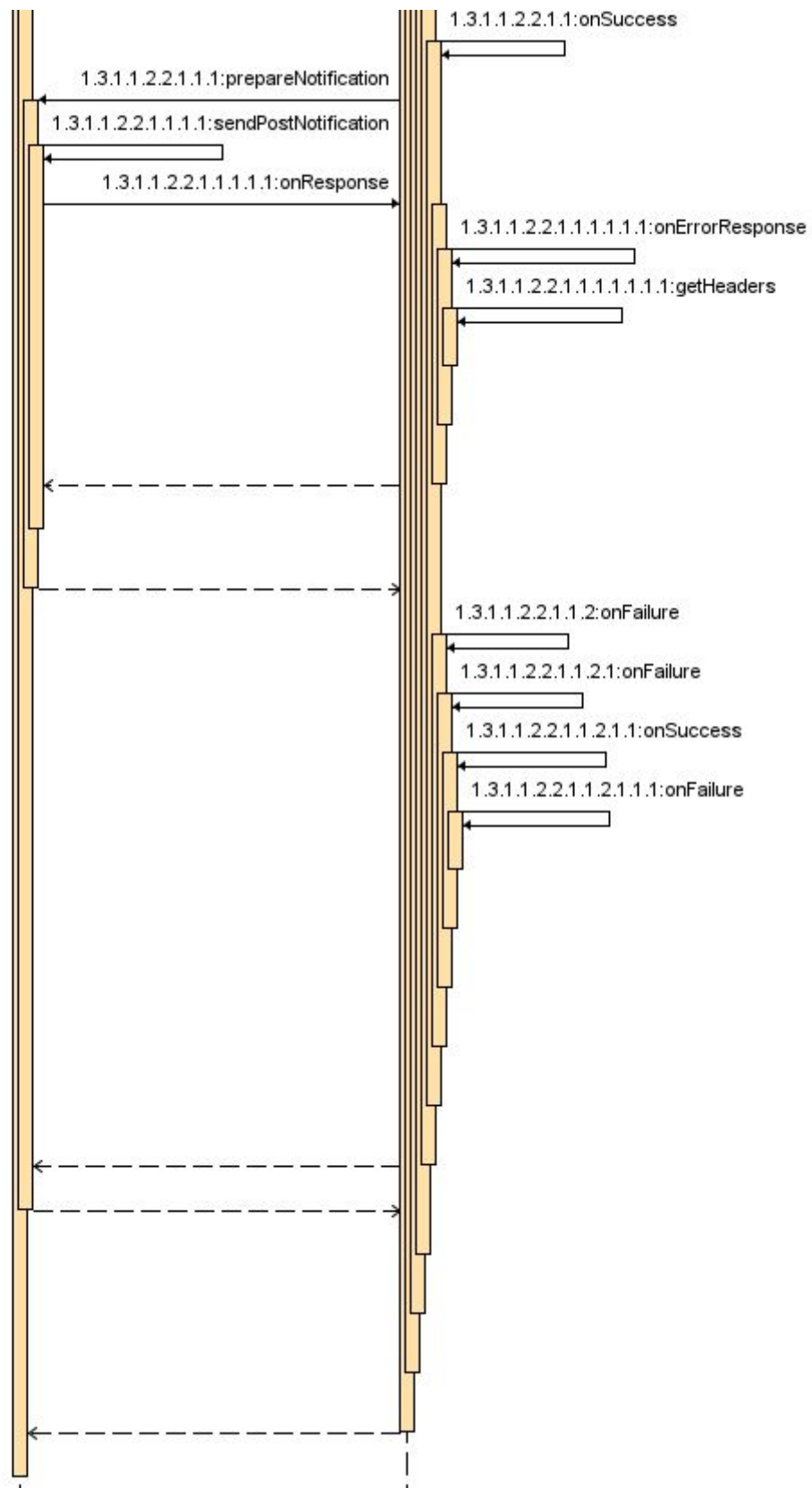




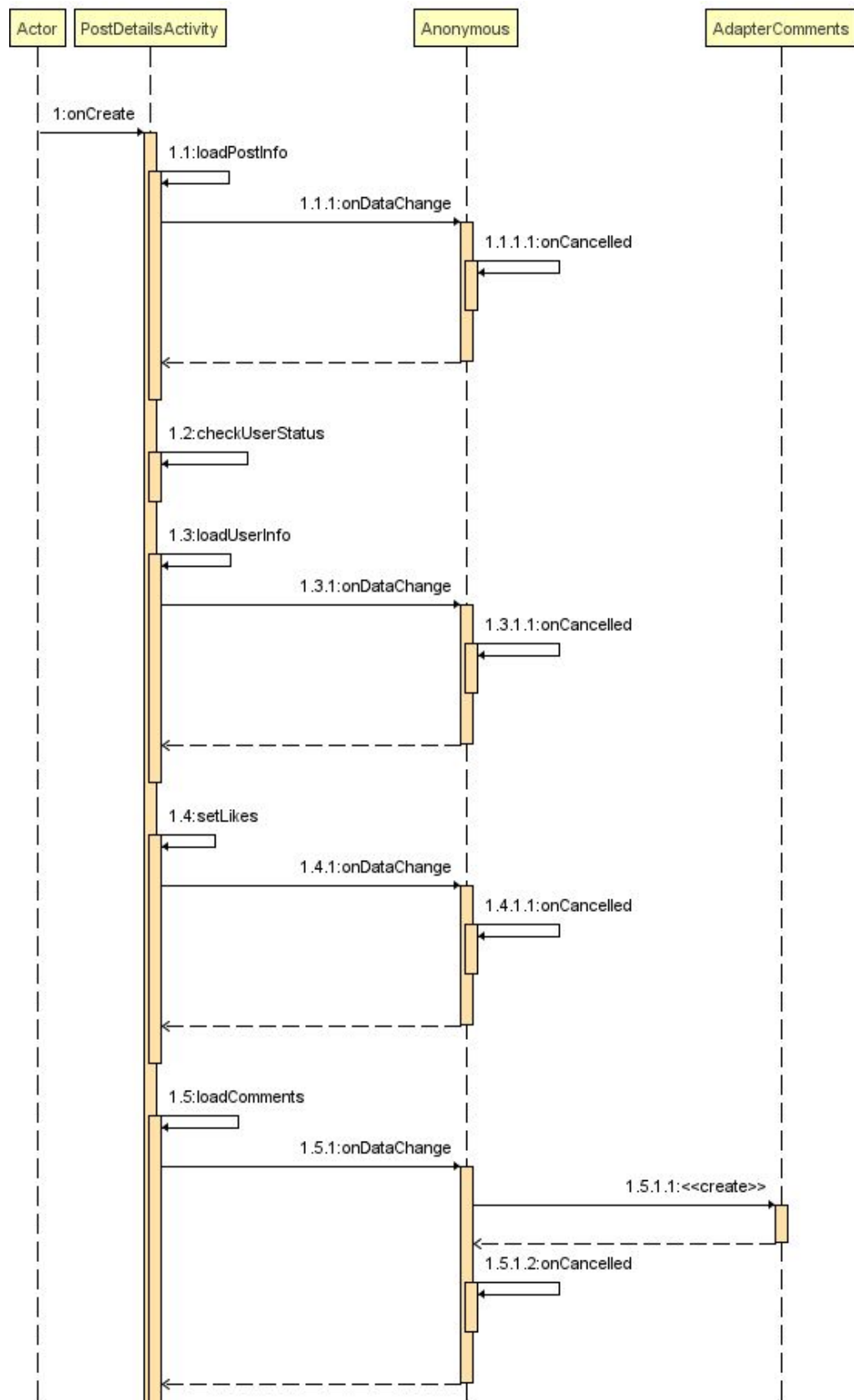
Create Post:

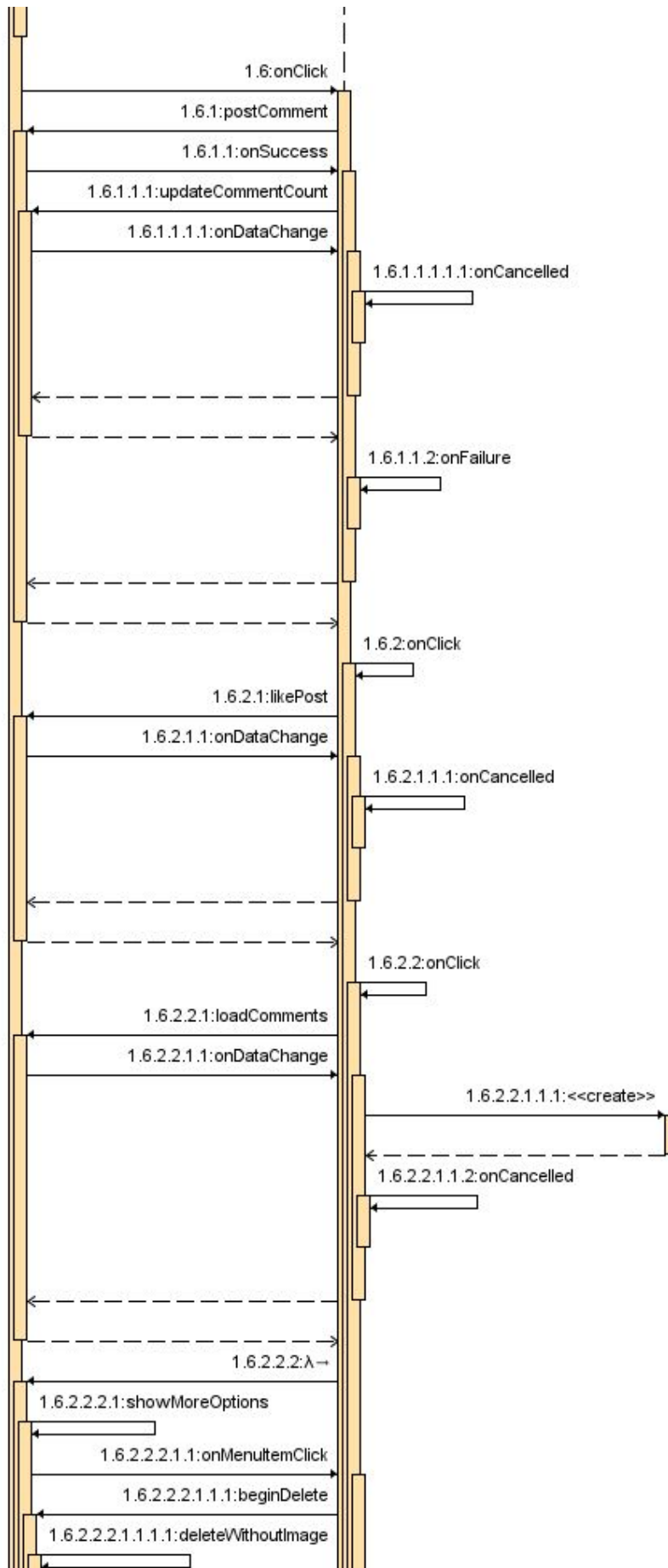


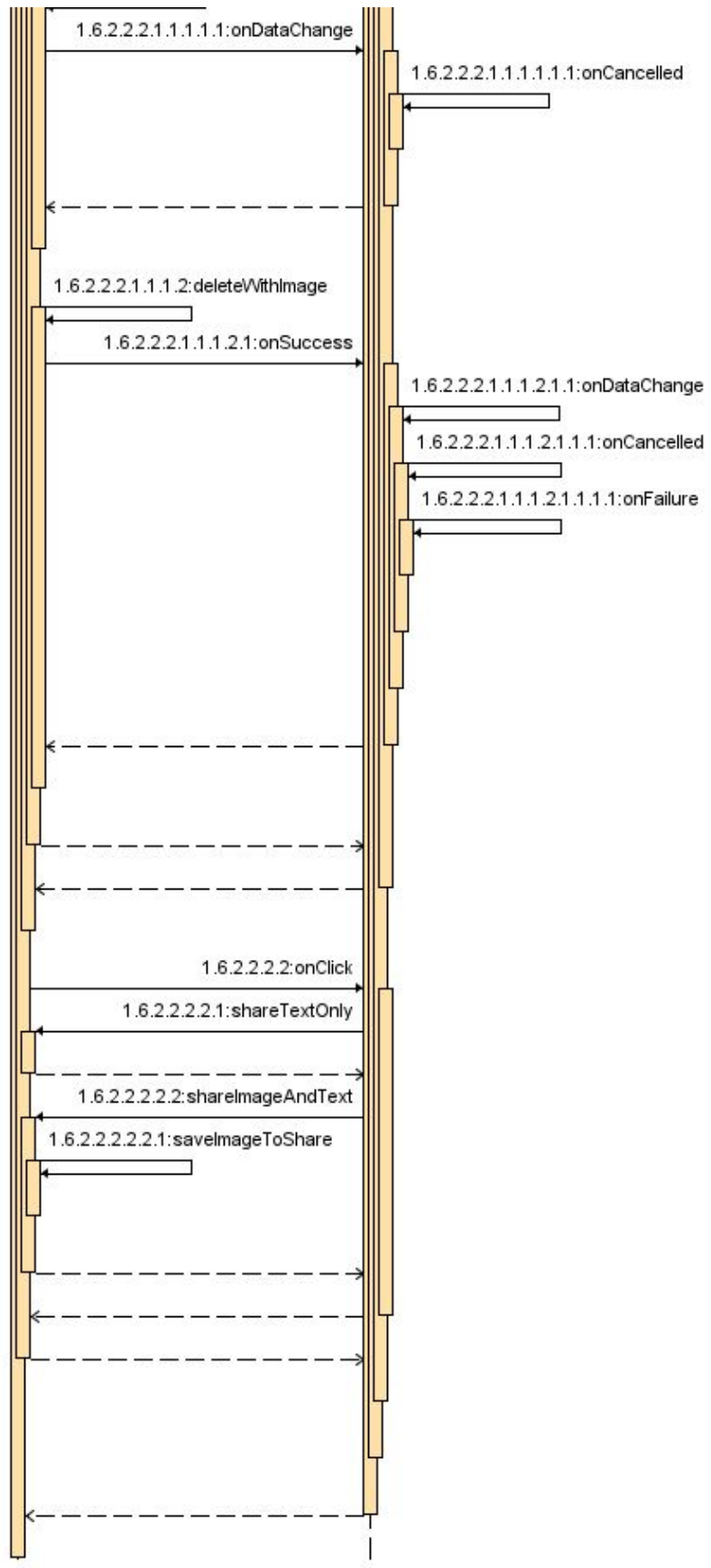




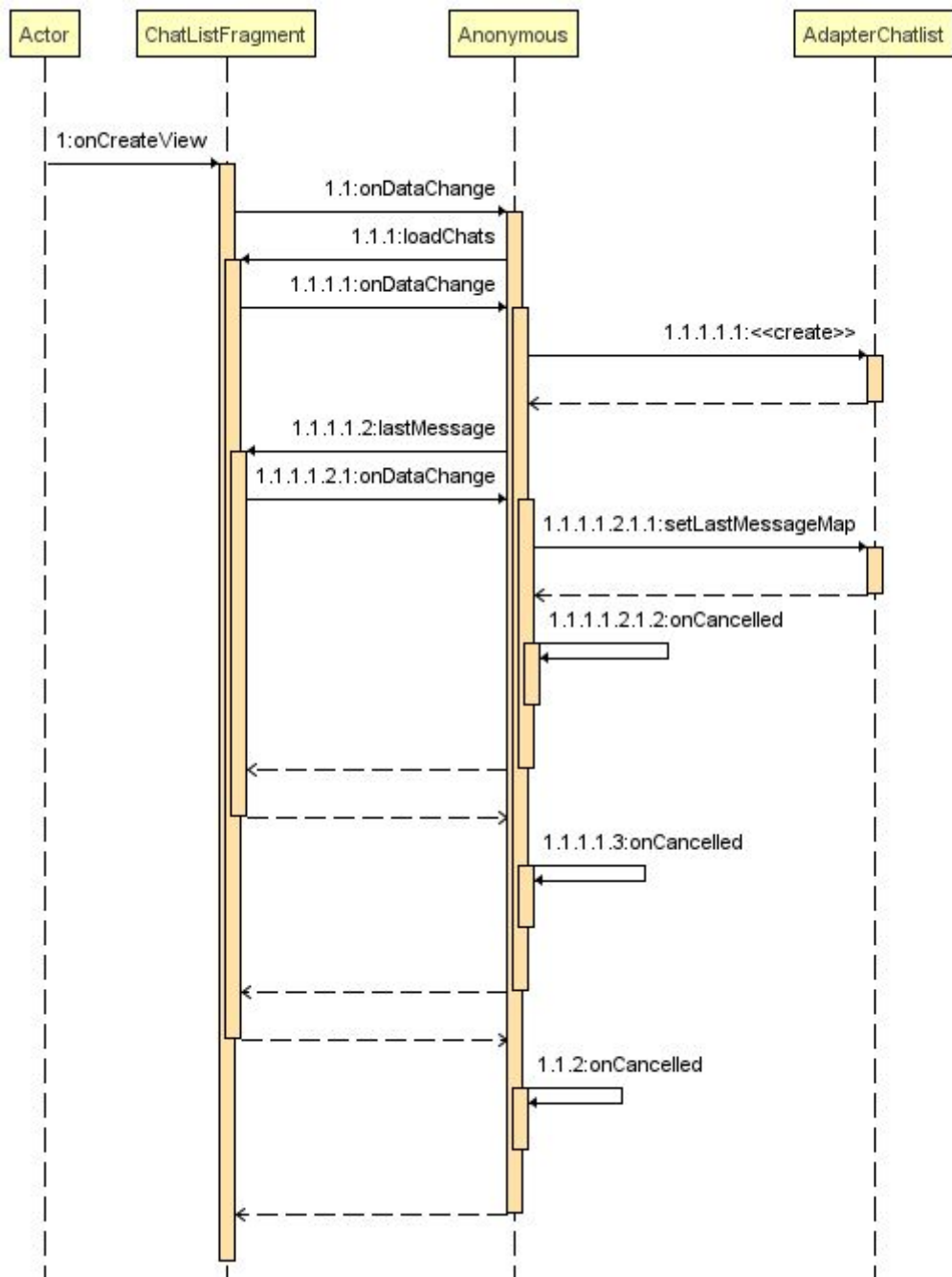
Post details:



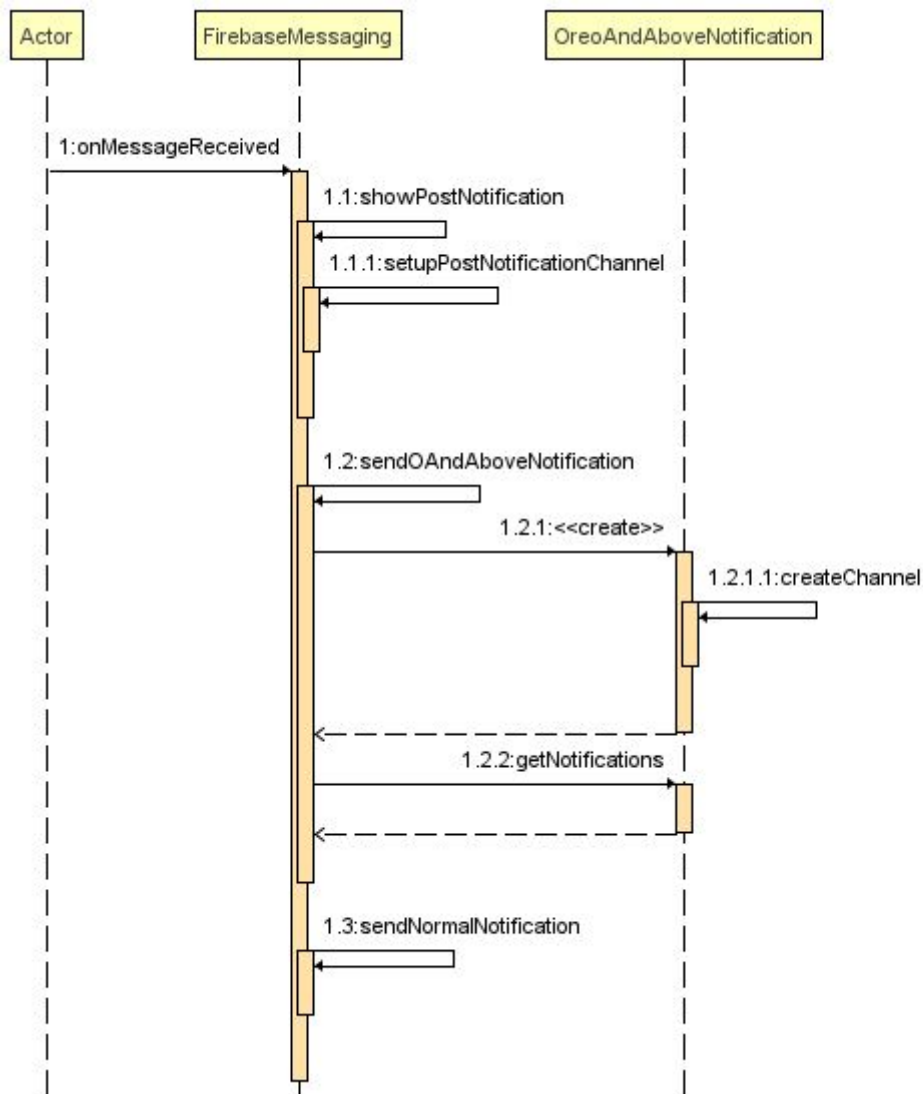




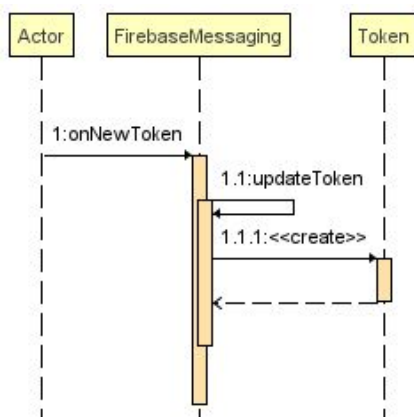
Chatlist:



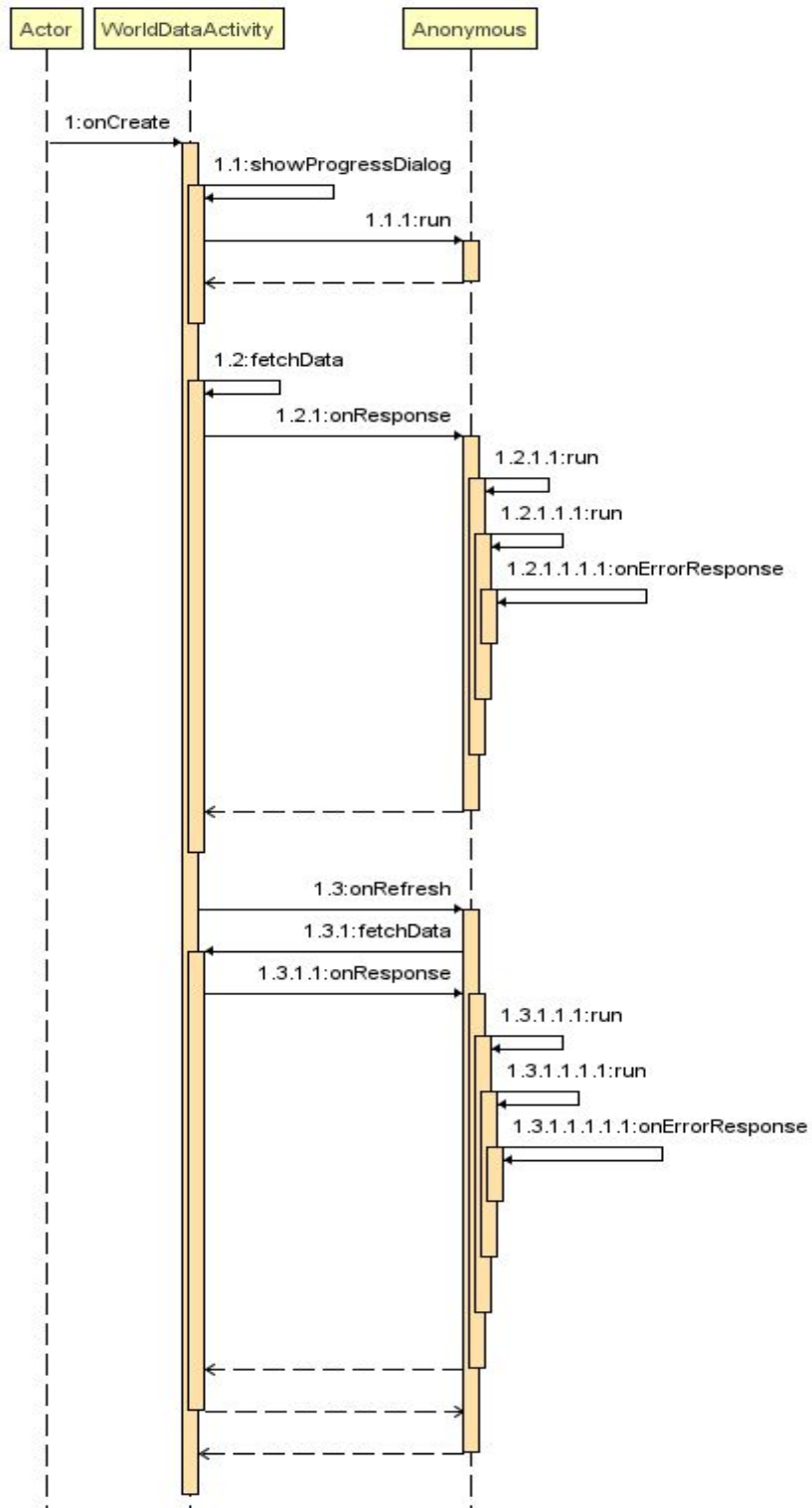
Notifications on Message received:



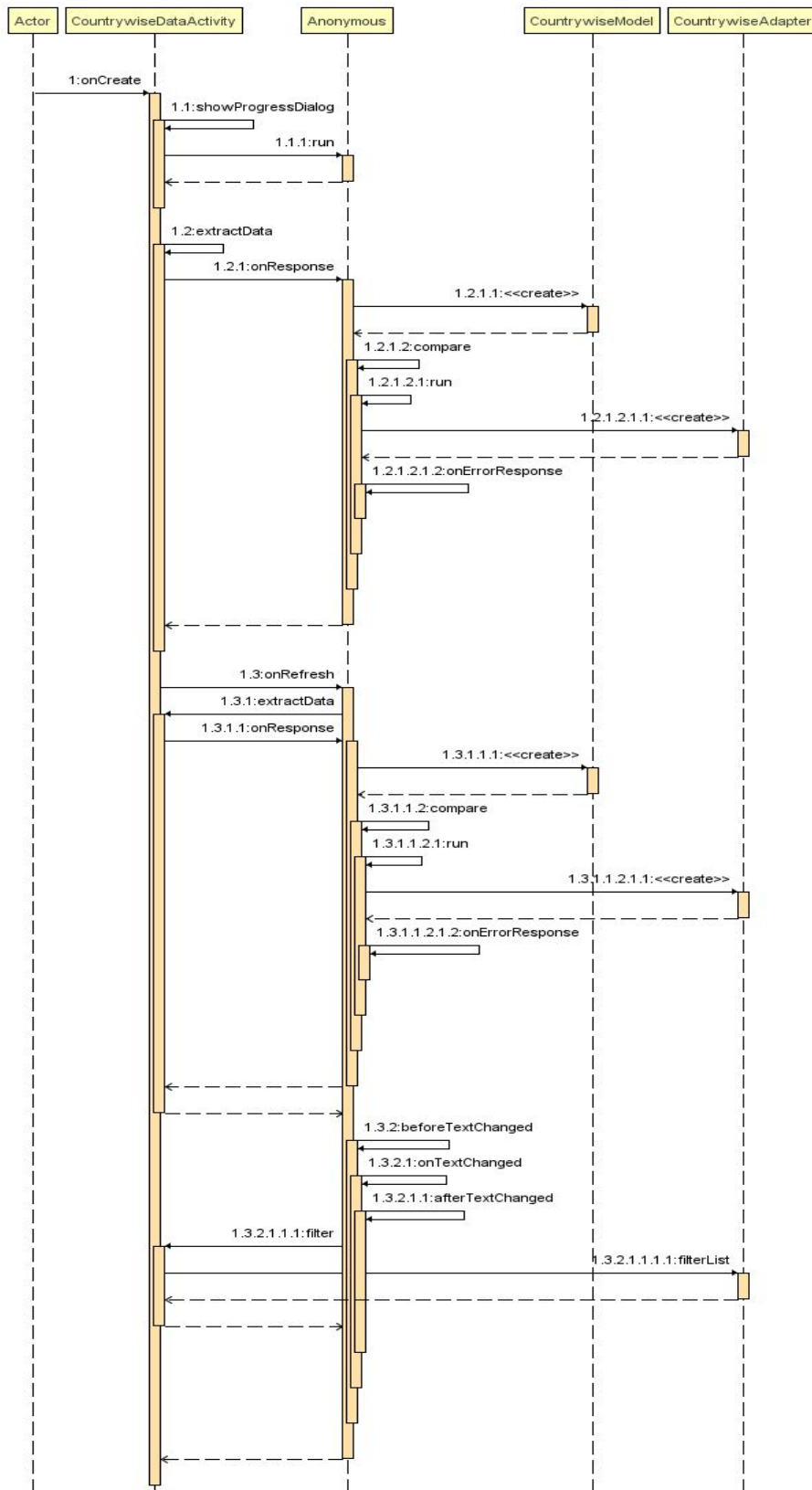
Notification Token:



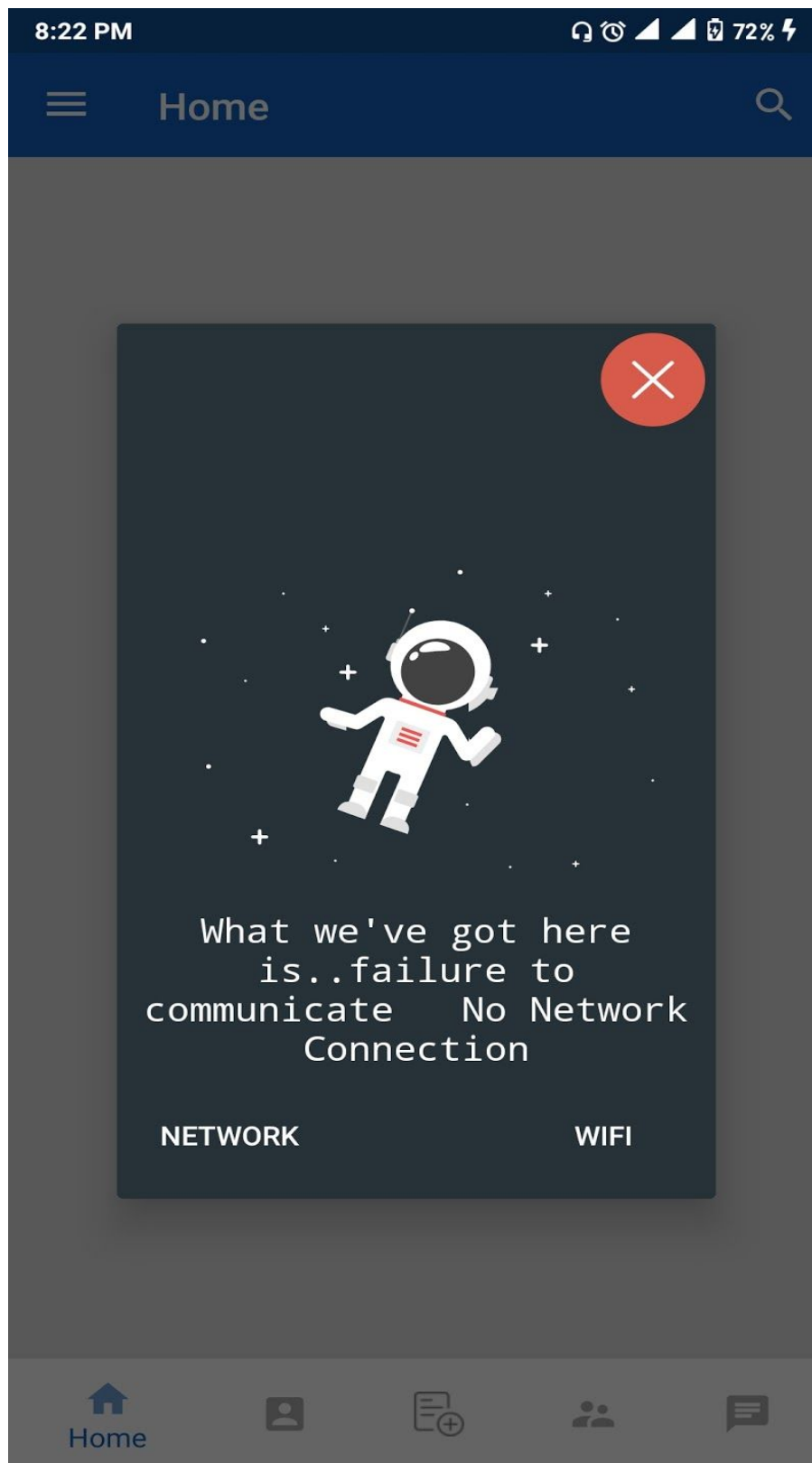
Covid World-data:



Covid Country data:



10. Snapshots of the App



8:15 PM

...3.0KB/s      72%



forum

E-mail

Full Name

Password (at least 8 Characters)

Confirm Password



Forgot Password?

Don't worry, we just need your registered email address and it's done

Provide Your Registered Email Here

Reset Password

< Go back

8:16 PM

...7.9KB/s

Health Forum

Platform to Discuss Health Issues

- Home
- Donations of Blood
- Covid Status

LOG OUT



H



MP

13.7

kdbd



0 Likes



MP

11.7

Didn't work
news, My a



Home

8:16 PM

...4.4KB/s 🔊 🔒 📶 🔋 72% 🔌



Home



Shovan

04.11.2020 01:04 PM



Brain damage

Brain malfunction resulted in some weird activities from a patient



1 Likes

0 Comments



Naimur

01.11.2020 10:55 PM



Just Checking

Why the image turns into blue after inserting on AddPostActivity!

Here I'm, updating this post 😊



Home



8:17 PM

...26.1KB/s 🔊 🔒 📶 🔋 72% 🔌



Naimur

01.11.2020 10:55 PM



Just Checking

Why the image turns into blue after inserting on AddPostActivity!

Here I'm, updating this post 😊



2 Likes

5 Comments



 Comments



Shovan

I accidentally put tint on it. Now, ok

01.11.2020 11:01 PM



Naimur

Oh, okay then. Blood donation's background seems stunning 😍

01.11.2020 11:03 PM



Shovan

Gnjkkb



Enter comment here...

SEND

8:17 PM

...3.0KB/s



Profile



Naimur

naimur978@gmail.com

01861291755

My Recent Posts ↓



Naimur

01.11.2020 10:55 PM



Just Checking

Why the image turns into blue after inserting on AddPostActivity!

Here I'm, updating this post 😊



2 Likes

5 Comments



Profile

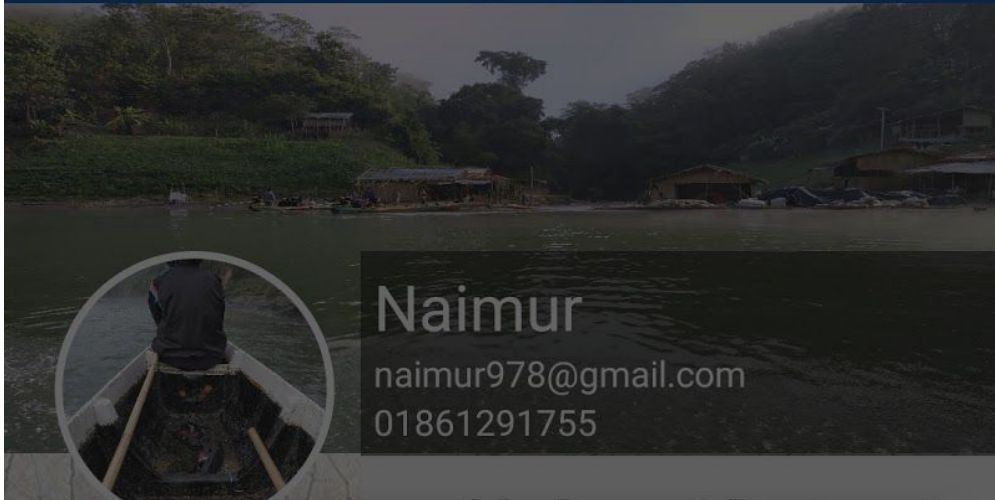


8:17 PM

...2.9KB/s  72% 



Profile



Naimur

naimur978@gmail.com

01861291755

Choose Action

Edit Profile Picture

Edit Cover Photo

Edit Name

Edit Phone

2 Likes

5 Com



8:17 PM

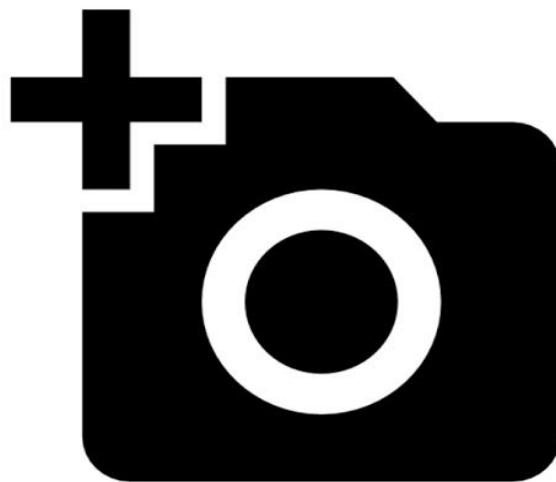
...3.5KB/s



Add Post

Enter title

Enter description...



UPLOAD



8:17 PM

...6.1KB/s 🔔 📶 🔋 72%



Users



Shovan

jhakanaka@gmail.com



Dark Shadow

bolod022@gmail.com



MK Shovan

shovan@gmail.com



User



8:18 PM

...6.5KB/s    72% 



Chats



Shovan

Did you check map activity?



Dark Shadow

Sent a photo



Naimur



8:18 PM

...4.5KB/s 📶 🔔 🔋 72% 🔌



Shovan

Last seen at: 13.11.2020 06:43 PM

Are you listening?

28.10.2020 12:19 AM

Hey there 😊

28.10.2020 03:18 PM

which one?

01.11.2020 11:39 PM

Did you check map activity?

Delivered 01.11.2020 11:39 PM



Start Typing...



8:18 PM

...3.0KB/s  72% 



Shovan

Last seen at: 13.11.2020 06:43 PM

Delete

Are you sure to delete this message?

NO

DELETE

hey there 😊

28.10.2020 03:18 PM

which one?

01.11.2020 11:39 PM

Did you check map activity?

Delivered 01.11.2020 11:39 PM



Start Typing...



8:18 PM

...5.2KB/s       72% 



Add Post

Enter title

Enter description...

Pick Image From

Camera

Gallery

UPLOAD



Create

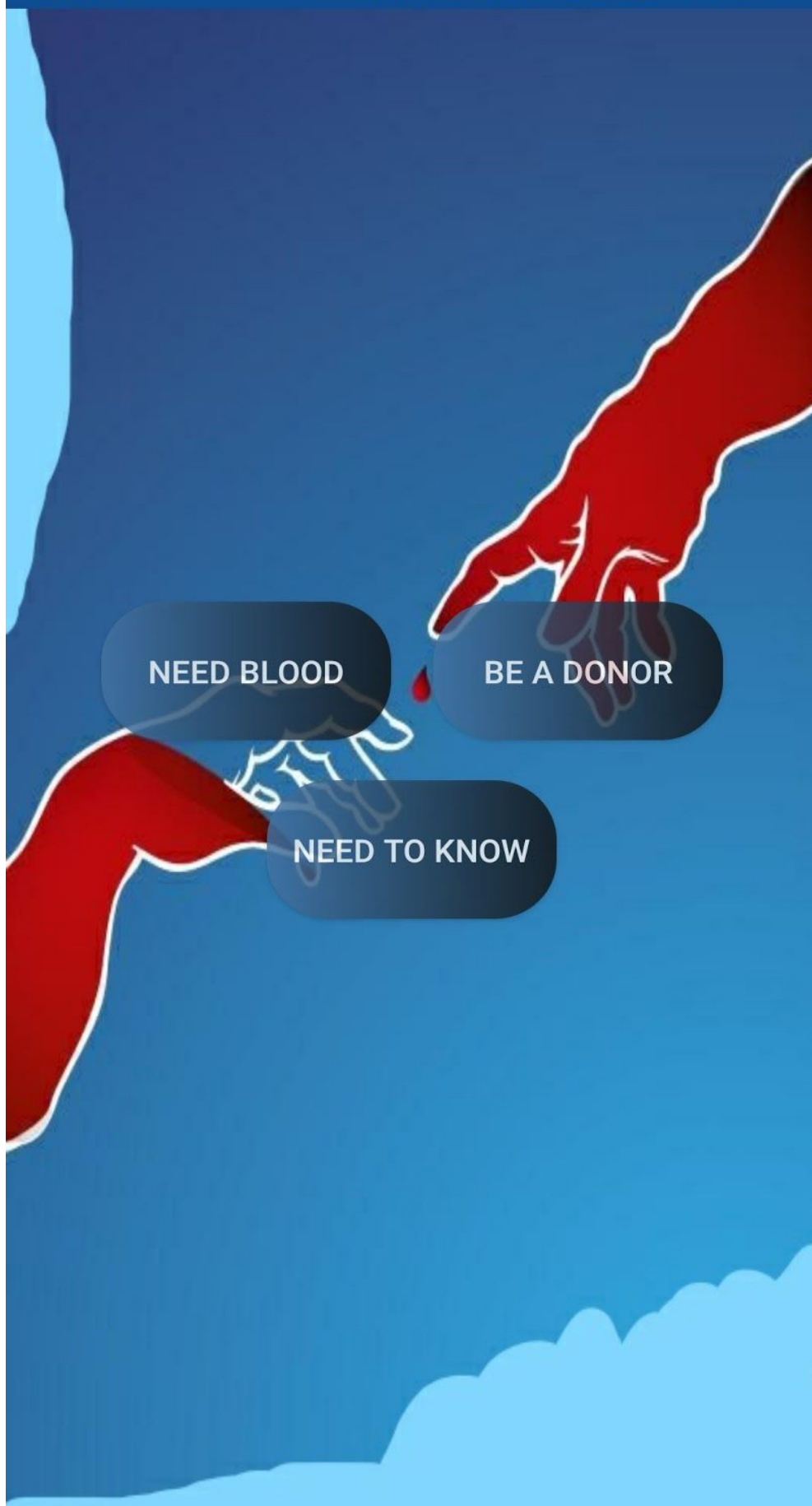


8:18 PM

...3.6KB/s



72%



NEED BLOOD

BE A DONOR

NEED TO KNOW

Why Should You Donate Blood ?

Giving blood saves lives. The blood you give is a lifeline in an emergency and for people who need long-term treatments. Many people would not be alive today if donors had not generously given their blood. Why we need you to give blood we need over 6000 blood donations every day to treat patients in need for people to give blood .Each year we need approximately 200000 new donors, as some donors can no longer give blood. Most people between the ages of 17-65 are able to give blood. Most people between ages of 17-65 are able to give blood. Around half our current donors are over 45. That is why we need more young people to start giving blood .

Eligibility Requirements

If you are male, you must:

1. Be healthy and feeling well
2. Be at least 17 years old
3. Be at least 5 ft 1 inch
4. Weigh at least 130 lbs.

If you are female, you must:

1. Be healthy and feeling well
2. Be at least 17 years old

8:19 PM

...3.1KB/s



Donor Information

Full Name

Naimur

City

Barisal



Blood Group

O+



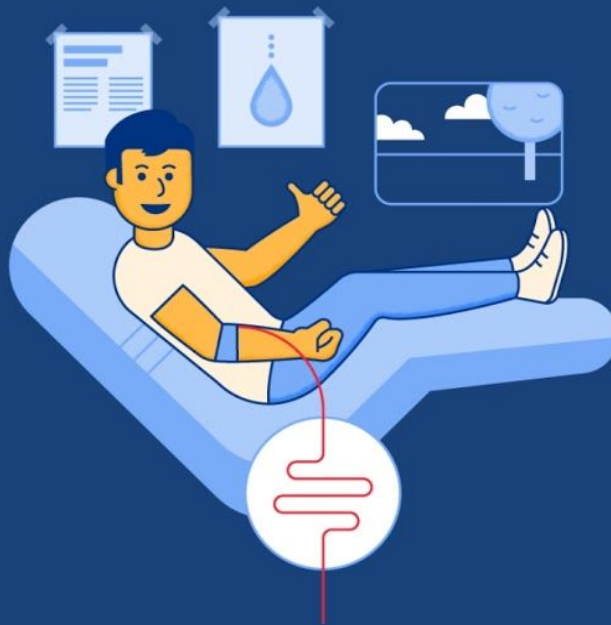
Contact Number*

01*****

CONTINUE

8:19 PM

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Information

City

Barisal

Blood Group

O+

CONTINUE

ABC 0138907246234

def 0111111122

naimur978 8657657

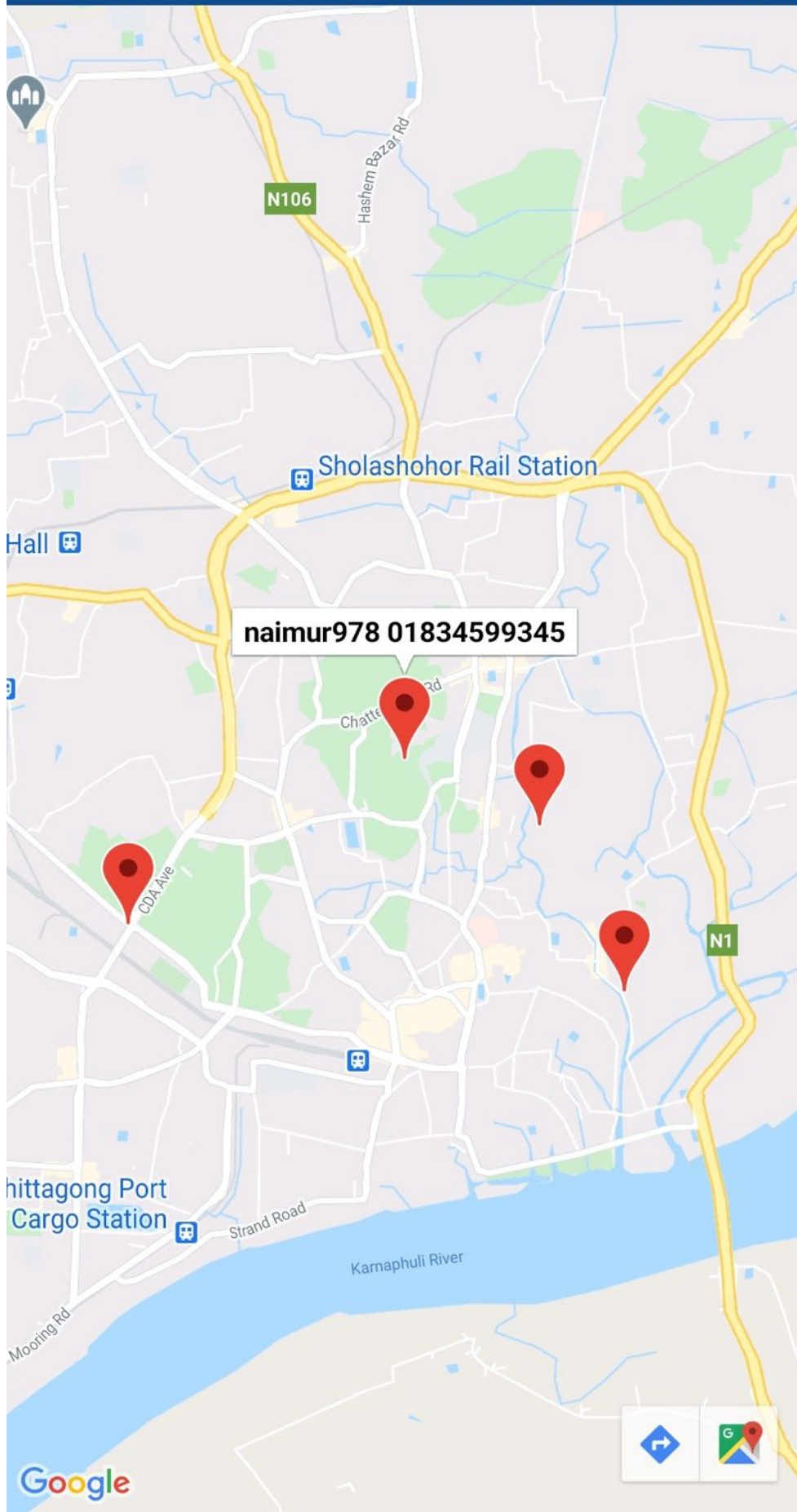
naimur978 01834599345

Jhaka Naka 12345

SHOW ON MAP

8:20 PM

...64.0KB/s



8:21 PM

...4.3KB/s       72% 



 Active
 Recovered
 Deceased

Confirmed
53,256,556
+173,797

Active
14,637,743

Recovered
37,316,738
+112,978

Deceased
1,302,075
+3,447

Total tests
898,028,954

Country Data

8:21 PM

...8.8KB/s 📶 📶 📶 🔋 72% 🔌

🔍 Search

Country

Total Cases

1.



USA

10,880,526

2.



India

8,729,190

3.



Brazil

5,783,647

4.



France

1,898,710

5.



Russia

1,880,551

6.



Spain

1,484,868

7.



UK

1,290,195

8.



Argentina

1,284,519

9.



Colombia

1,174,012

10.



Italy

1,066,401

8:21 PM

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 Active
 Recovered
 Deceased

Confirmed
428,965
+1,767

Active
76,419

Recovered
346,387
+1,519

Deceased
6,159
+19

Total Tests
2,515,339

11. Limitations

As the app is about health and health-related questions, also for all kinds of people, we couldn't add **necessary functionality for little literate or fully illiterate people** who could use the app. As our app doesn't have any physical database or data storage, we **may not handle a lot of users** at the same time. Lastly, our application shows the donors on the map as the donors set their location, **not the current location**. We couldn't afford to show the **nearest valid blood donors** on the map.

12. Future Work

We are planning to add some features in the next update. They are the followings-

Right now, we are **accepting mail accounts** for account creation. In future,

- We'll add phone number and OTP as the verifier of the account.
- Inserting Speech to Text feature to get interaction from all types of people.
- Deploying lots of animations for better User experience.
- Adding Bangla as another language of the application.