Final Project Assignment for full day competition Blood Donation Collaboration System

Objective:

Everyday hundred of thousands of people need blood and most difficult part is arranging blood donor, coordinating with them and give them direction to reach required location. Our objective is to create an application that will allow users to collaborate for blood donation, user can post blood requirement, volunteer for blood donation etc.

Requirements:

- 1) Signin/Signup
- 2) Post blood requirement
- 3) Users can comment on post about further detail or direction
- 4) Display blood requirement feed
- 5) Volunteer on particular blood requirement
- 6) As blood requirement fulfilled user and update his/her post for progress or completion
- 7) All users receive notification of blood requirement
- 8) Push notification to notify other users for blood requirement

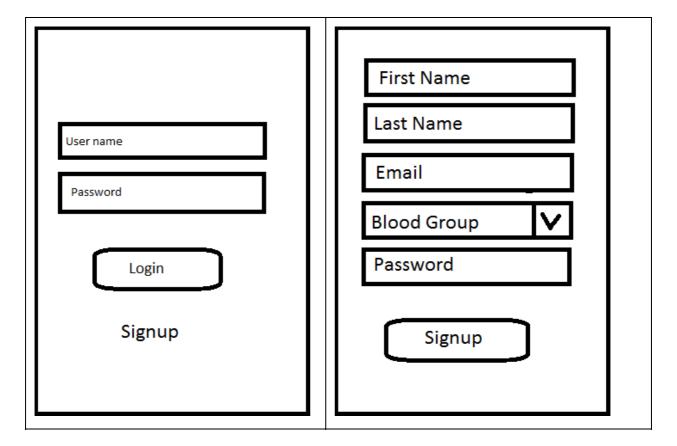
Limitation:

For this application we will not have any web interface, therefore many details like location of hospitals and blood group will be directly added/updated in database Static data provided at the end of this document.

Technology:

Create an mobile application with firebase as backend.

1) Sign In / Signup



2) Menu

Zeeshan Hanif Blood Group: A Positive	
Home	
My Requests	
Post requirement	
Notification	
Settings	

3a) Home screen/ Post feed list

Feed Zeeshan Hanif 3 units of A Positive blood required. At Indus Hospital for my Friend Urgency: Urgent Contact at: 123456789 Additional instructions: Call me when you reach hospital Volunteers uptill now: 5 Current requirment: 2 Volunteer Comment Zeeshan Hanif 3 units of A Positive blood required. At Indus Hospital for my Friend **Urgency:** Urgent Contact at: 123456789 Additional instructions: Call me when you reach hospital Volunteers uptill now: 5 Current requirment: 2 Volunteer Comment

Each post will display

- a) User name who posted blood requirement
- b) Number of units required and blood group
- c) Location and Relation with patient
- d) Urgency and Contact number
- e) Additional instruction
- f) Number of volunteers who are willing to donate blood
- g) How much units currently required
- h) Clicking on "Volunteer" will count user as volunteer who is going to donate blood
- i) Clicking on "Comment" open detail screen where user can comment on post
- j) Clicking on main Post area will also open detail screen

3b) Post Details

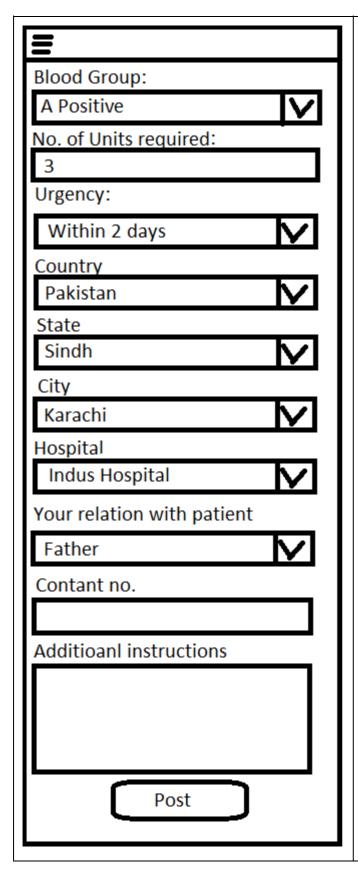
Post Details Zeeshan Hanif 🛣 Units required: 3 Donation Received: 2 Still required: 1 Blood Group: B Postive Location: Karachi, Sindh, Pakistan Hospital: Indus Hospital Urgency: Urgent Relation with patient: neighbour Contact no: 12345678 Additional instrcutions: Call me when reach to hospital Volunteers Rehan uddin -- O Positive Exchange donation Not Donated Inam ul Haq -- O Positive Exchange donation Donated Comments Taha Shahid -- What is your exact location Rehan uddin -- I will reach in 2 hours Inam ul Haq -- Just donated **Post** Comment

Post detail screen display post information in detail

- a) Empty star with username shows that blood requirement has not fulfilled yet
- b) Color filled start will show that blood requirement has fulfilled and no more donation required for this post
- List of Volunteers will display users who are willing to donate blood
- d) Volunteer list time display username, user's blood group, blood donated yet nor not, and if users blood group does not match with required blood group then it will display "Exchange donation"
- e) User can post comment to get further details

It will be full big scrollable screen which will display all the details provided in image

4) Post Blood requirement



User can post blood requirement

- a) List of Blood Group
- b) List of Urgency
- c) List of Countries
- d) List of State based on selected country
- e) List of Cities based on selected state
- f) List of Hospitals from selected City
- g) List of Relations to select relationship with patient

Important:

As user post blood request, all other users should receive push notification through GCM

Note: All of these data will be loaded from firebase. As we are limited with time so all of these information should be added in database directly.

Also for now use only Pakistan in country list and state/cities of Pakistan

5a) My Blood Request

My Posts

Required 3 units of B negative at Ziauddin Hospital

Status: Not fullfilled

Required 1 units of Anegative at Ziauddin Hospital

Status: Completed

Required 3 units of B negative at Indus Hospital

Status: Completed

Required 3 units of O Negative at Ziauddin Hospital

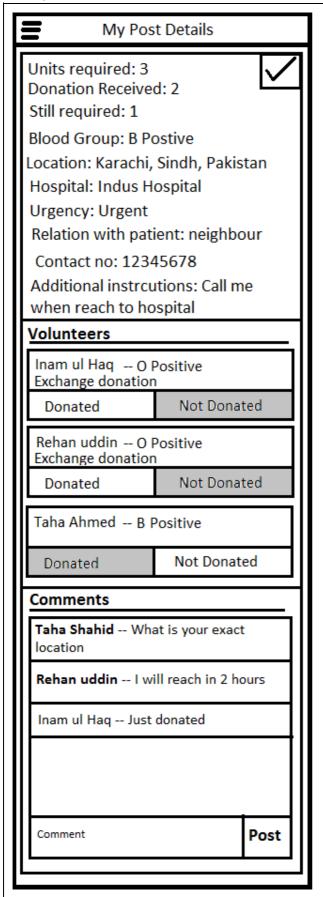
Status: Completed

Display list of blood requirement posted by logged in user.

It will display only small summary of requirement and status if requirement is fulfilled or not.

Click on each item will display detailed post screen

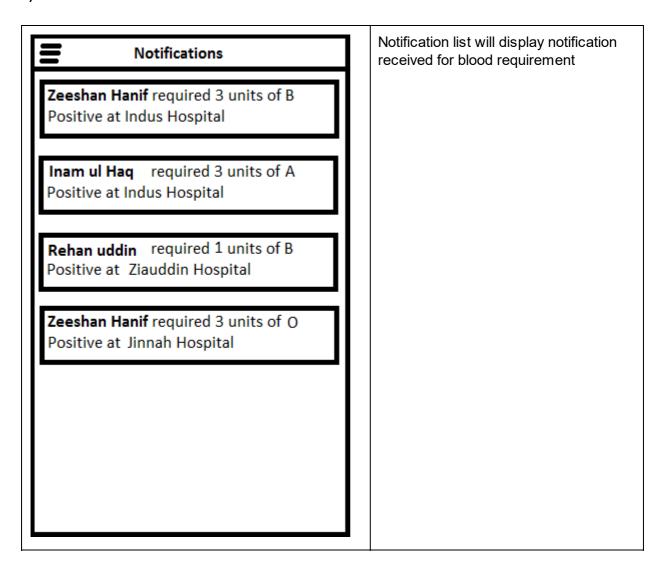
5b) My post details



This post detail screen is for user who have posted the blood requirement.

- a) Display all the details post by user
- b) Tick on the top right corner is clickable button, when user click on this it means that blood requirement has been fulfilled and no more blood is required
- Volunteer list display two buttons with each volunteer and current user can click any one of them to identify if that user have donated blood or not
- d) Comment section will display list of comments

6) Notification



Static Data:

Blood Groups:

- 1) A Positive
- 2) B Positive
- 3) O Positive
- 4) A Negative
- 5) B Negative
- 6) O Negative

Urgency:

- 1) Urgent
- 2) Within 5 hours
- 3) Within 12 hours
- 4) Within 24 hours
- 5) Within 2 days
- 6) Within Week

Hospitals:

- 1) Indus Hospital
- 2) Ziauddin Hospital
- 3) Agha Khan Hospital
- 4) Liaquat National Hospital
- 5) OMI
- 6) Jinnah Hospital
- 7) Holy Family Hospital

Relation with Patient:

- 1) Father
- 2) Mother
- 3) Son
- 4) Daughter
- 5) Aunt
- 6) Uncle
- 7) Nephew
- 8) Niece
- 9) Friend
- 10) Neighbour
- 11) None

Blood requirement Status

- 1) Not Fulfilled
- 2) Completed

Marks distribution:

Marks will be give on 1 to 10 scale for each criteria, 1 being lowest and 10 highest

Criterias:

- 1) Application structure, code cleanness
- 2) Object oriented design, separation of code and proper business logic
- 3) Completion of all requirements
- 4) UI design
- 5) Database design
- 6) Push Notification