CLOUD BASED PLASMA DONOR APPLICATION

Submitted by

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CLOUD BASED PLASMA DONOR APPLICATION

1. INTRODUCTION

1. Brief Description of the Project

Any new crisis needs new measures and practices. During covid-19 the world faced the crisis for blood donors to safeguard the infected people. Finding out the exact donor and reaching them was a big challenge during this period. Here comes a simple cloud based solution to connect the donors and recipients.

1.2 Purpose

The main objective of this project is to connect the recipient to the exact donors. An online application like this is very much useful during covid-19 like pandemic period. This cloud based application makes it usable anywhere , anytime , using any device. The SMS message is sent to the donor on request of a particular blood group.

The major objective of doing it as a cloud application is to make it cost effective with less investment on infrastructure.

2. LITERATURE SURVEY

2.1 Existing problem

During any ailment blood is the major need. Covid-19 taught the entire world the importance of blood. Even though there are blood banks run by individuals and by hospitals, reaching the needy person on time is a big problem. There are many blood donor web applications which are not scalable and they

cannot withstand storing voluminous data of donors list.

2.2 Proposed solution

My proposed solution is to build a cloud based blood donor application. It uses the cloud approach by deploying the application in the cloud making use of the cloud database viz., IBM DB2.

3. PROJECT OVERVIEW

3.1 Project Flow

The prototype of the proposed system is given in Fig. 1

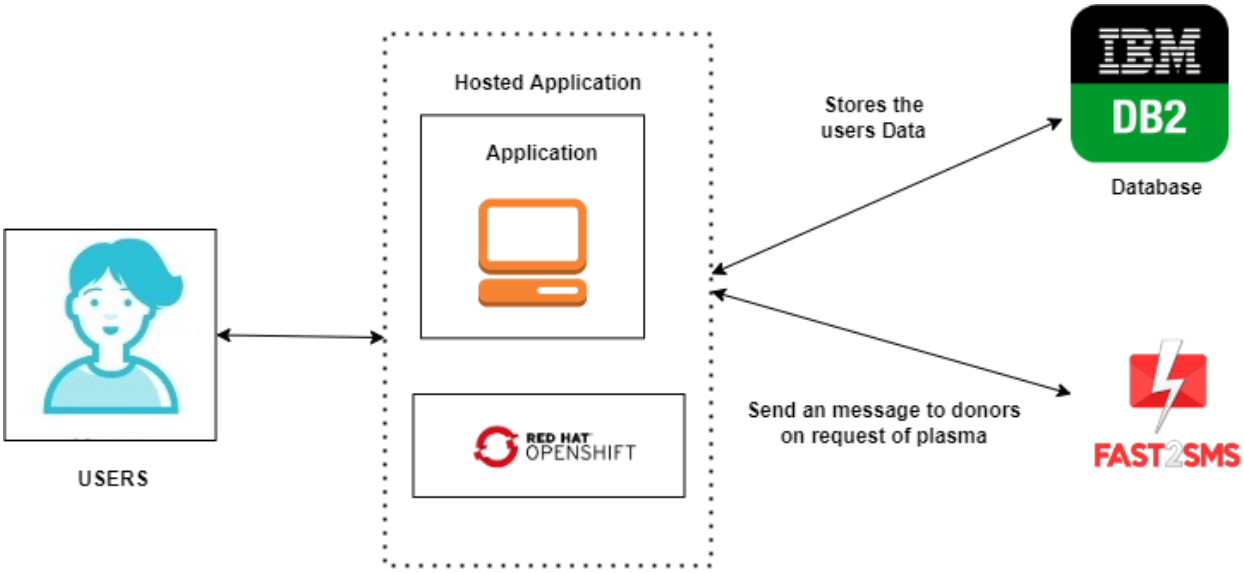


Fig 1. Proposed Plasma Donor Application

Users need to register an account and login to the application. Once the user logins, he will have a dashboard to view the total number of donors and count of people with specific blood groups. Users will have the option to request the

blood. Once the user requests, all the people with that blood group will be notified with an SMS.

3.2 Hardware and Software Configuration

The configuration of hardware and software used for designing this project :

Hardware Specification: Windows 10 PC or above

Software Specification :

Coding language used - Python 3.7

IDE - Visual studio Code 2022

Public repository to upload code - Personal Github account

To access cloud database - IBM cloud account

Deployment environment - Redhat openshift account to work in sandbox

4. IMPLEMENTATION

Fig 2 Import from Git

It allows one to manage everything easily by keeping all the build scripts in the same repository as your code. Using Git repository gives the advantage of version control of the docker files too.

5. RESULT

The final output of the application built is shown as screenshots in figures 5 to.

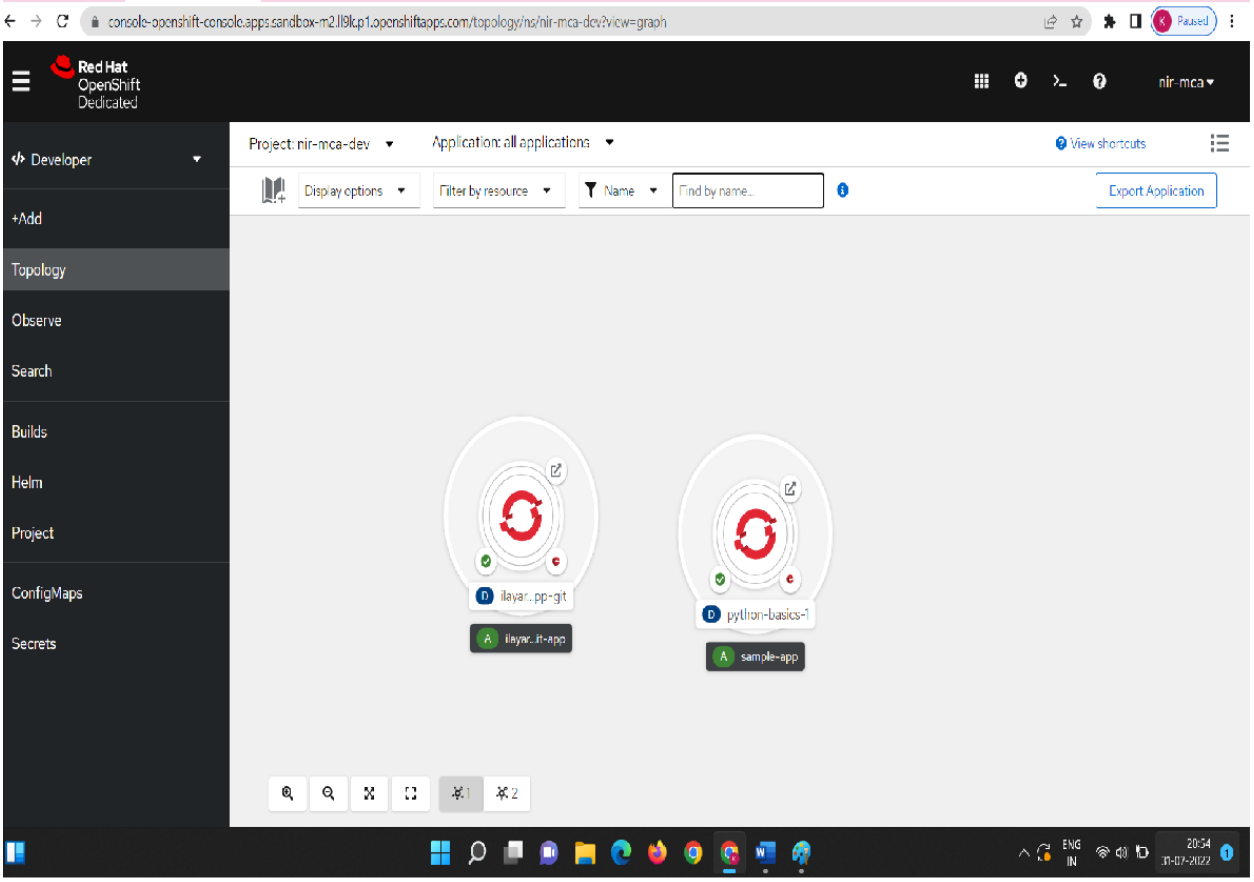
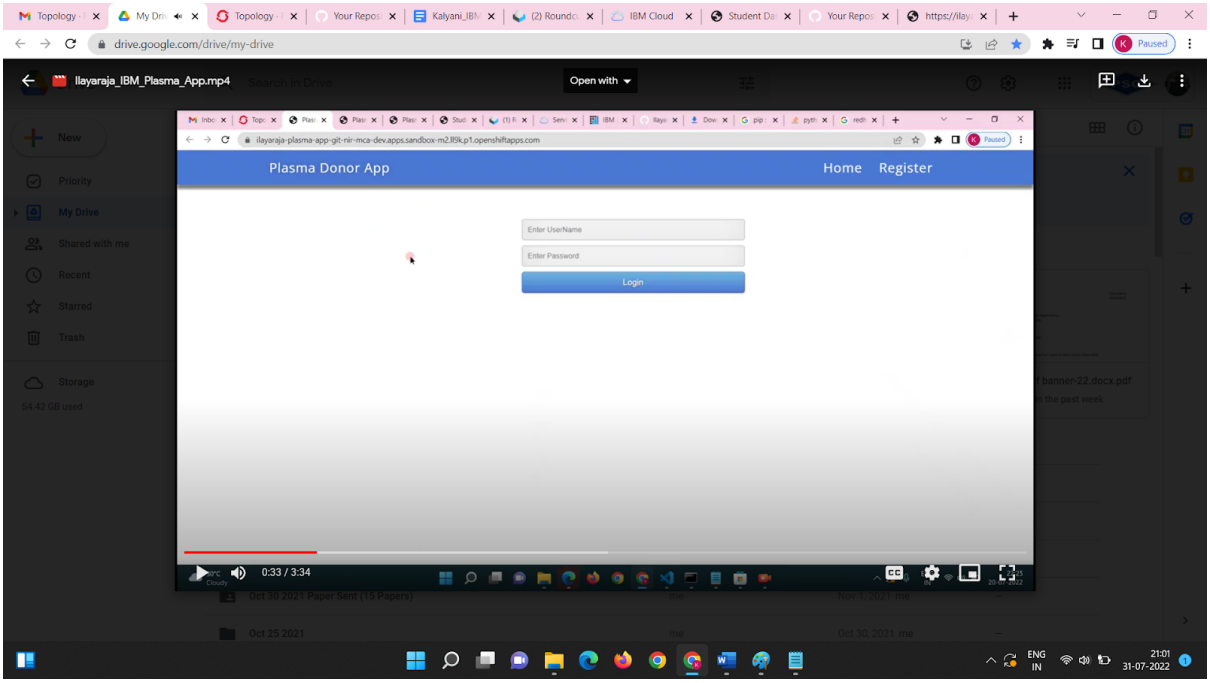


Fig 3 Redhat Openshift Console topology screen



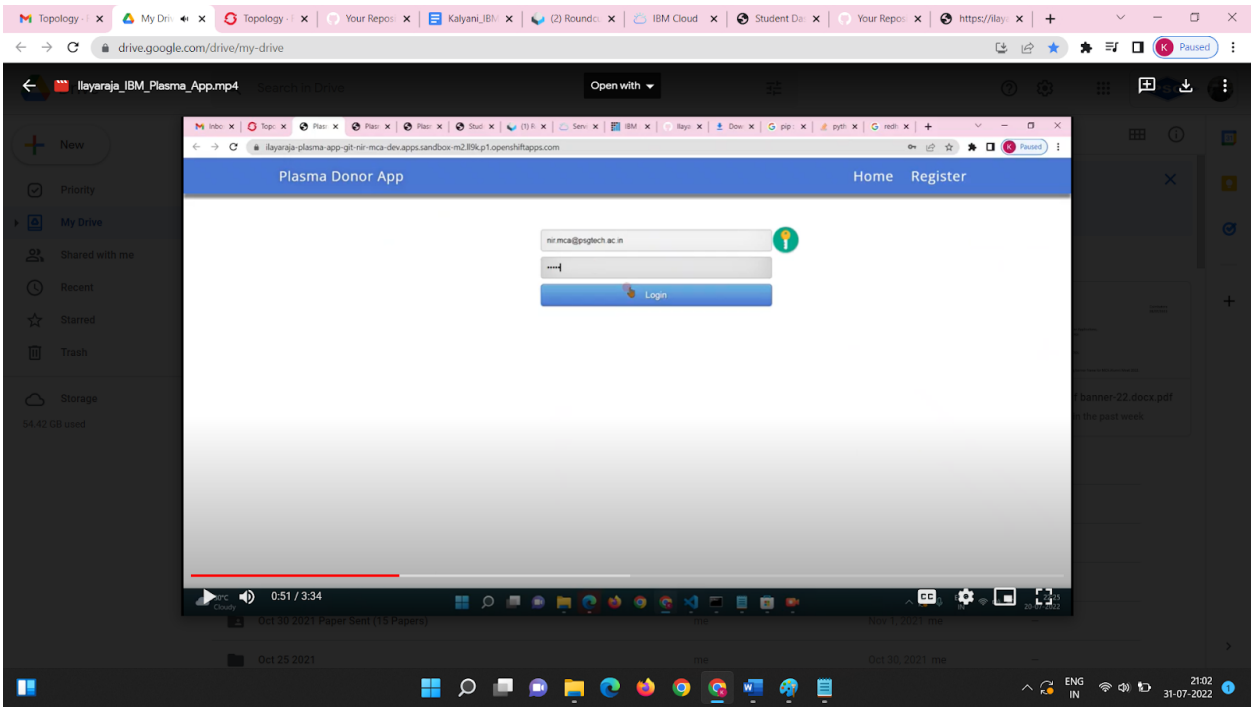


Fig 4 Home page of the Plasma Donor App

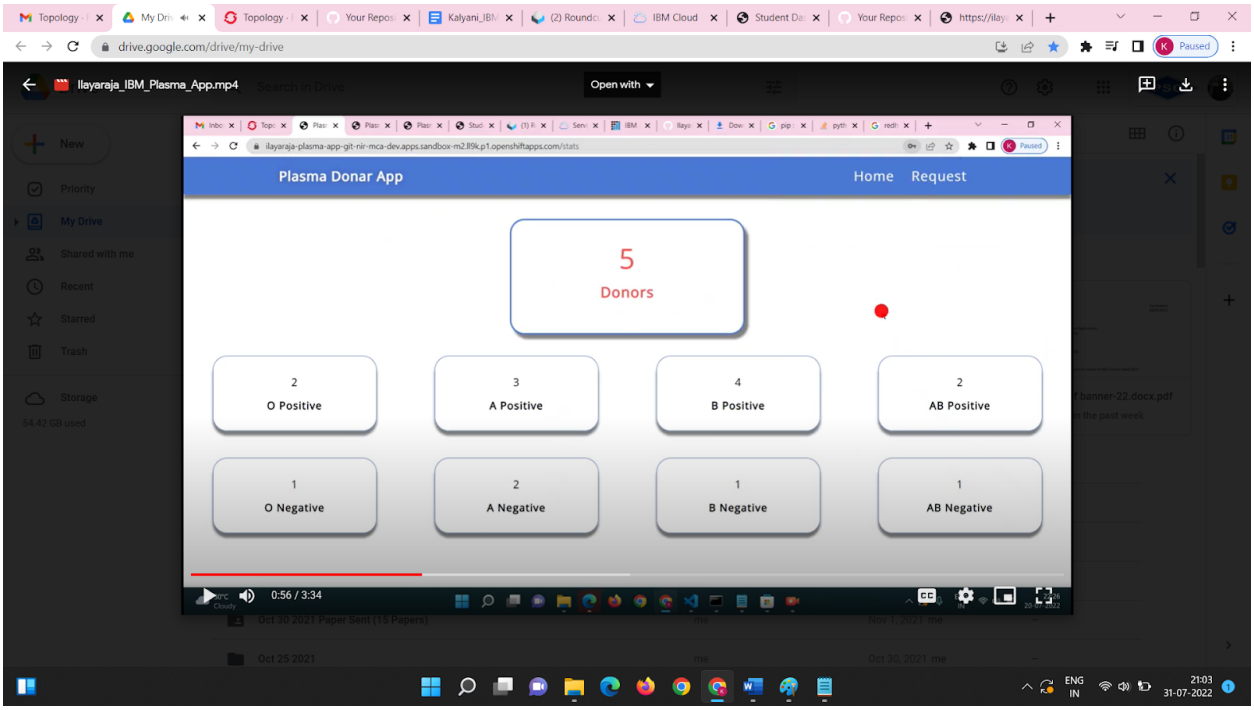


Fig 5 View of Donors list in the Plasma Donor App

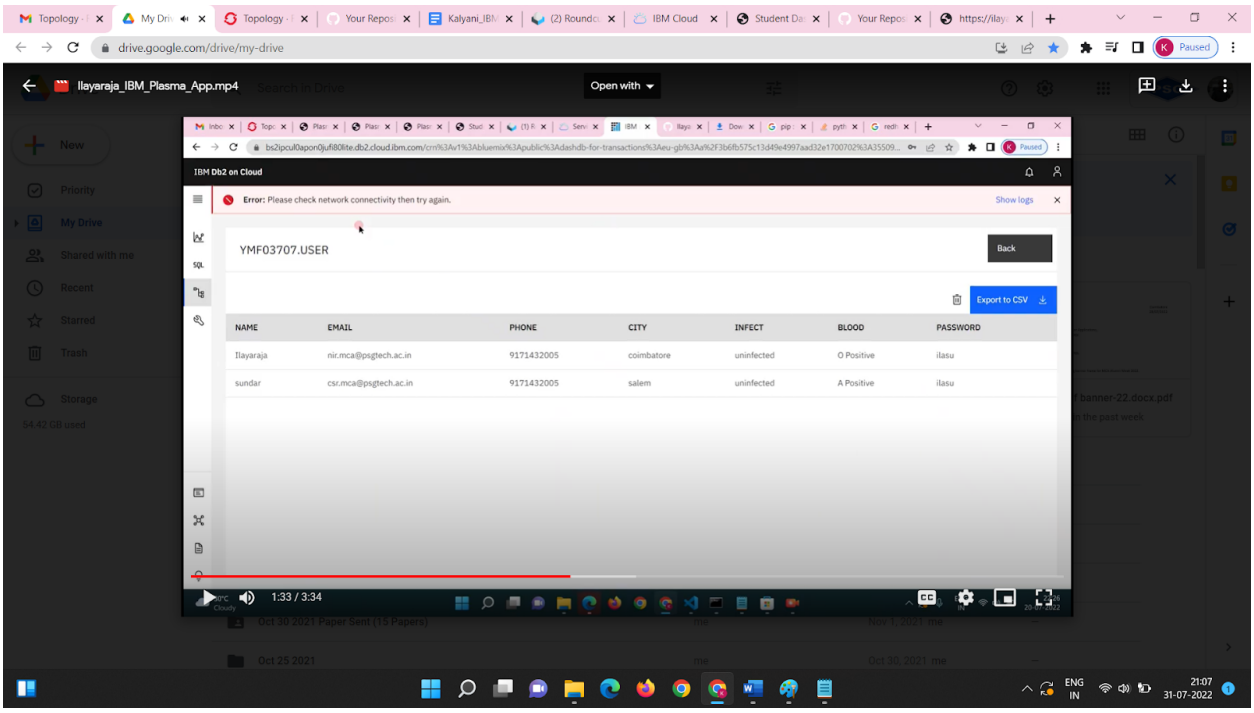
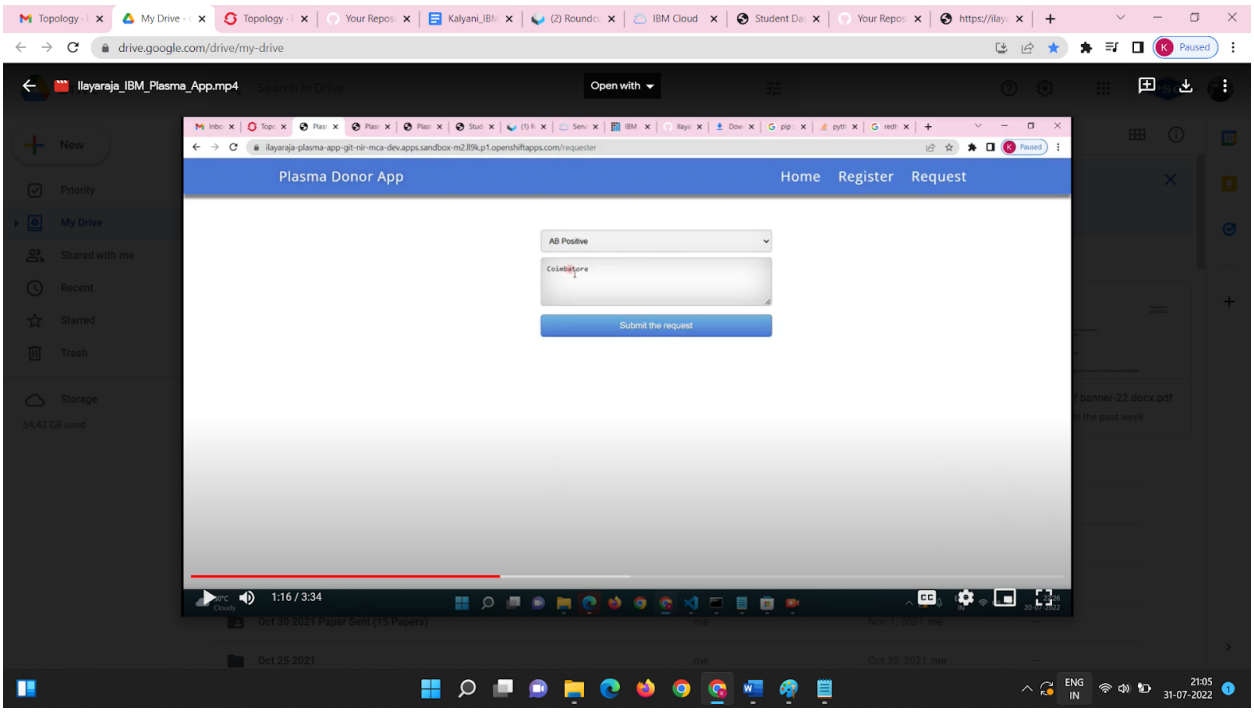


Fig 6 Database screen



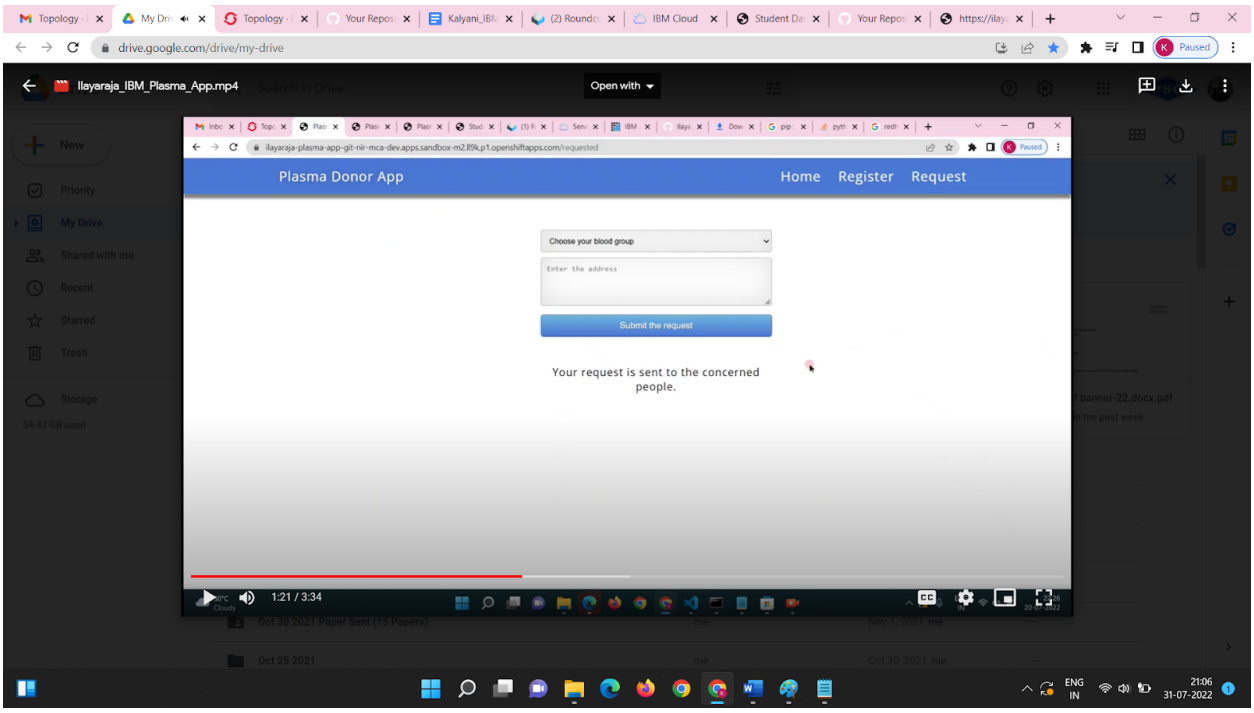


Fig 7 Request and conformation page

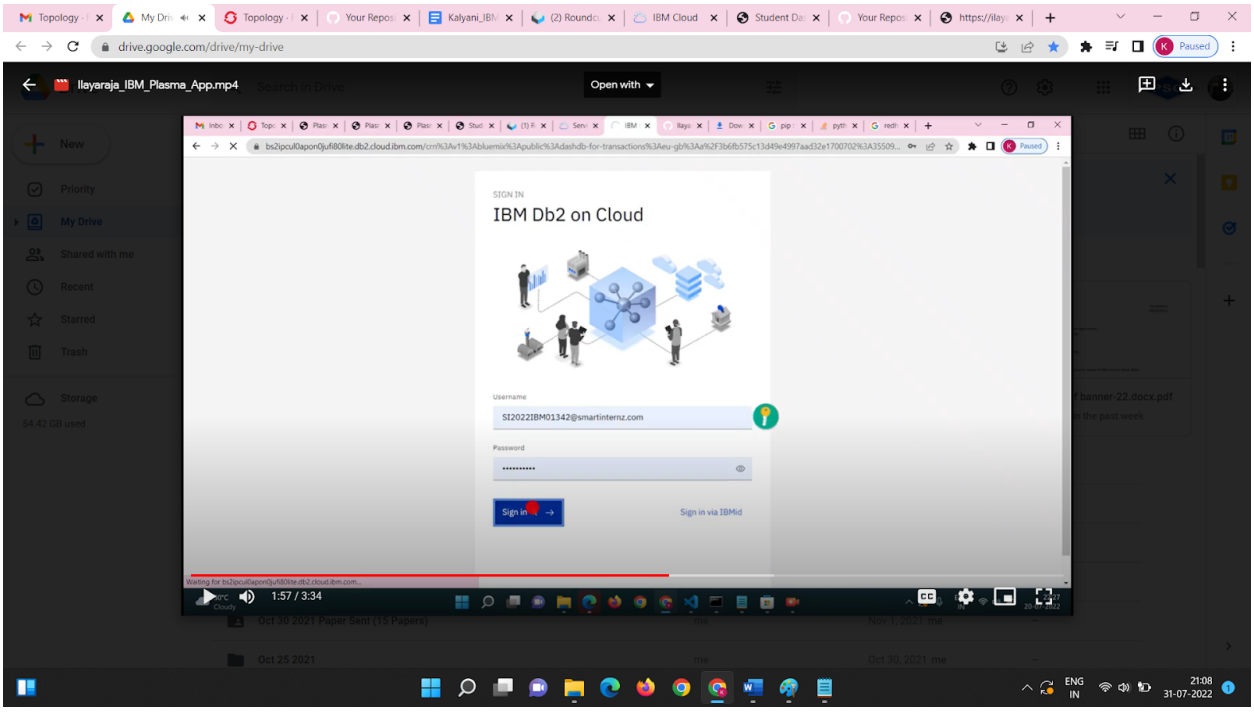


Fig 8 Login Screen to IBM DB2

6. Merits of the proposed Application

This plasma donor application is very useful for any people in need of blood in their crisis. Being a cloud-based application, scalability is much higher.

7. Application

This application could be used by any individual or in hospitals or by blood banks.

8. Conclusion

This application is uploaded in github account and database from IBM DB2 cloud connected and deployed to public access.

9. Future Scope

Notifications to the donor through SMS/WhatsApp/email could be done in future and added to this application in a very simple way by using the CodeReady Workspaces.