CMPE 272: ENTERPRISE SOFTWARE PLATFORMS
PROJECT DOCUMENT
FALL 2016
TEAM 22

BLOODLINE

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ABSTRACT

PROBLEM STATEMENT:

Blood is one of the most important essentials of human life. In near future, we might see artificial blood substituting for human blood, but till then blood donors are the safest and most important source of blood. The journey of blood from a donor to a receiver is a complex landscape process. The blood after donated is tested, stored, transported and finally transfused. But when the blood is donated in many places the details of the sample are written using pen and paper.

PROPOSED SOLUTION:

Bloodline will help is conquering this issue using blockchain. This helps is tracking the blood from the time it is donated, till it is transfused. When the blood is donated, this will generate a QR will have all the information and this can only be accessed with some extra information(Trap Door Algorithm). So when the blood is sent from one institution to other it can be easily tracked whether it is safe not.

EXPECTED OUTCOMES:

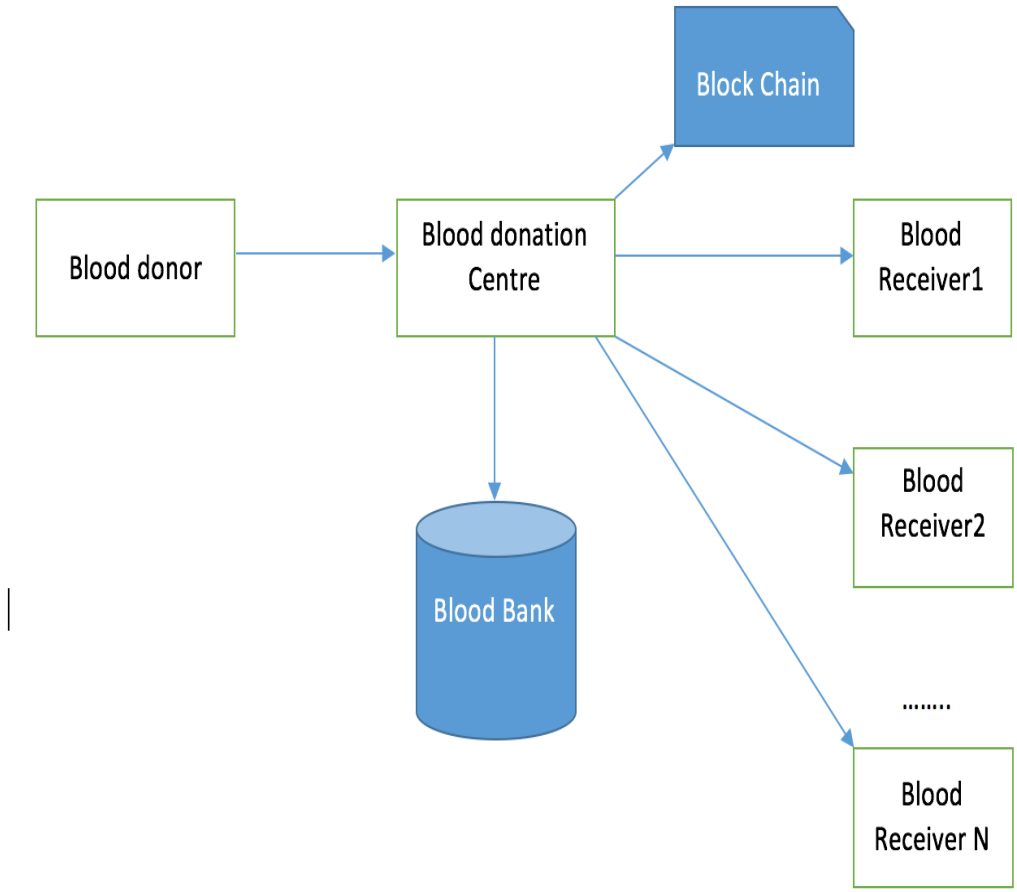
The end user here will be the Organizations the collect blood from the donors and store them in the Blood Collection Centers, and the hospitals that request blood from these organizations. The actions that a end user will be able to perform will be:

-->User should be able to Register for a new Account and login.

-->Generate QR while receiving blood from a donor.

-->Scan QR and check how safe the blood is.

ARCHITECTURE DIAGRAM:



USER STORY 1:

SUMMARY:

As a User of the Bloodline App, i should be able to register in order to log into the App.

DESCRIPTION:

The hospitals and the blood collection organization should be able to make an account in the BloodLine App. Once an account is created the user should be able to login to the application with the credentials he used while registering.

ACCEPTANCE CRITERIA:

- User should be able to login into the application with the correct Username and password
- The user should not be able to log in if any of the username/passwords is incorrect.
- The un-registered user should be able to login to the application.

USER STORY 2:

SUMMARY:

As an Organization that collects blood, User should be able to create a QR code for the donor’s blood.

DESCRIPTION:

The organization that organizes the blood donation camps, or has collection centers can use the BloodLine app and generate a QR code for the blood that is donated by the donor.
This will have all the details like name, age, blood group, allergies, date of donation etc.

ACCEPTANCE CRITERIA:

- User can click on Create QR button and create a QR.
- After creating a QR user should be able to fill all the information of the donor.

USER STORY 3:

SUMMARY:

As an Organization/Hospital can Scan the Blood QR using the BloodLine App to know if the blood is safe.

DESCRIPTION:

The organization/Hospital that receives blood for patients from the blood collection centers, need to check whether the blood received is good or not before transfusing it to the patient. Using BloodLine they can scan the QR and check details of the blood received.

ACCEPTANCE CRITERIA:

- User should be able to click on the Scan QR button, and this open the user's camera in the app.
- Scanning the QR should give the details about the blood received and whether it is safe or not.