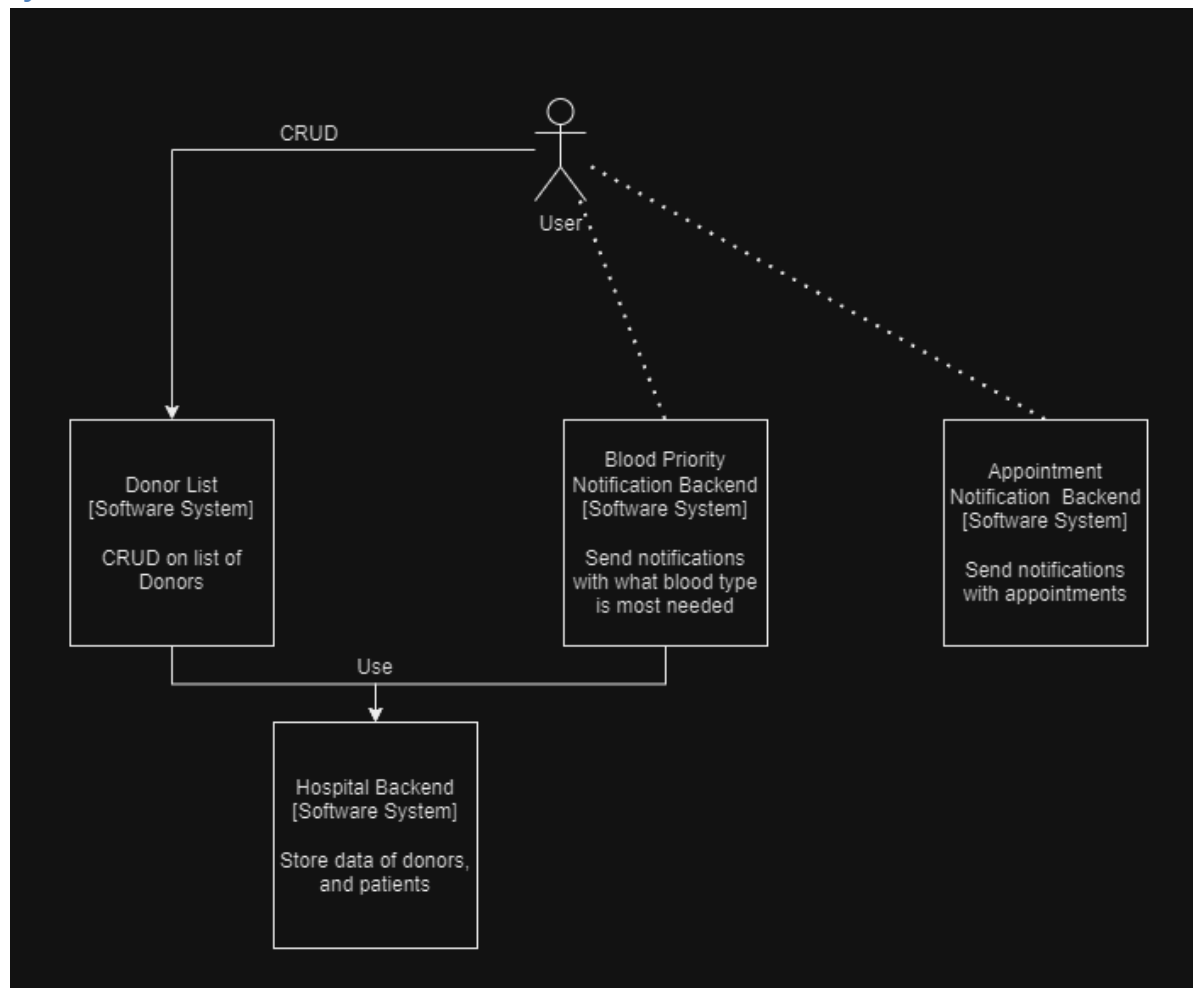# SOA – Documentation

App Description

This application could be beneficial for a blood donation centre. This can be utilized by the center's staff to monitor donors, the need for blood, priorities donors based on blood group and track when blood is collected from various hospitals.

All these functionalities are divided into the following microservices:
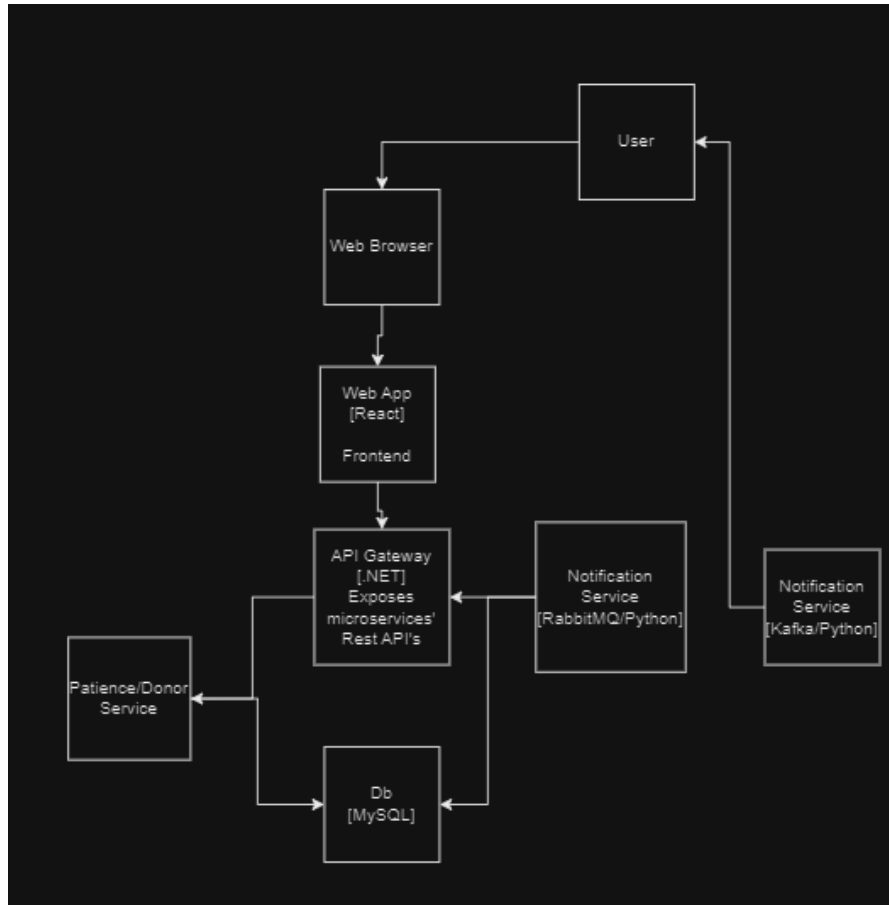
- Secured REST api - CRUD for Donors with CORS.
- Load balancers – using nginx.
- Communications
    - Message brokers – RabbitMq to send appointments.
    - Event streaming – Kafka to send what blood type has priority.
- Web app – Interface to perform CRUD on Donors and to receive message & notifications

Diagrams

System Context

CRUD

User

Donor List
[Software System]

CRUD on list of
Donors

Blood Priority
Notification Backend
[Software System]

Send notifications
with what blood type
is most needed

Appointment
Notification Backend
[Software System]

Send notifications
with appointments

Use

Hospital Backend
[Software System]

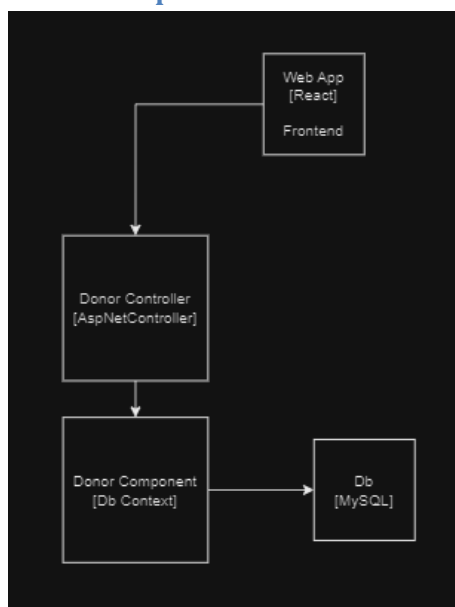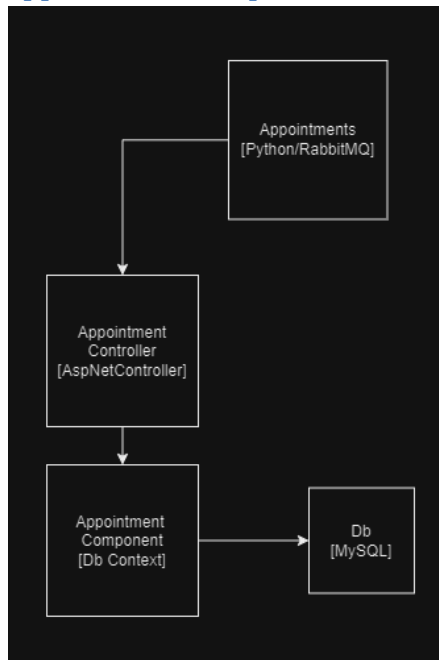Store data of donors,
and patients

Containers

Components

Donor Component

Appointment Component

Code