**CASE STUDY: Online Blood Bank**

**Scenario:**

**Problem Statement:** Any person who needs blood of a particular blood group must search blood donors in offline blood banks part of hospitals and etc. The blood donor has to visit a blood bank to get registered as a donor which is obviously a hectic task for donor.

Patients also need to visit many blood banks when there is a need of blood donors

The Blood bank also conducts Blood Donation camps periodically at various locations the details of which has to be published in a portal.

The Current requirement is create a hassle free platform for Donor and patient

**Proposed System**: Blood Bank Management System (BBMS) is a Microservice based system that is designed to store, process, retrieve and analyze information concerned with the administrative and inventory management within a blood bank.

This project aims at maintaining all the information pertaining to blood donors, Blood Donation Camps to help them manage in a better way.

Aim is to provide transparency and make the process of obtaining blood from a blood bank hassle free and make the system of blood bank management effective.

**Use Cases:**

**End User: Donor and Client**

1. Donor can register to donate blood with all the required details
2. Clients can view all the donors available.
3. Clients can view donors of a Specific Group
4. Clients can view donors of Specific Group who are eligible to donate, eligible donor are those who have donated blood six months before the current date
5. Clients can also search donors according to location
6. Donor can update their info.
7. Donor can un register when he/she not willing to donate blood.
8. Donors can view the Donation Camps being organized in their Area
9. Donors can register themselves for the Donation Camps
10. CRUD operations for Donation Camp should be provided
11. Client Should be able view list of Donors for a Particular Camp

General Requirements

* Services use REST request/response-based inter-process communication mechanism and JSON as the message format.
* Client Application is Built with Spring MVC Using Controllers, jsp and HTML
* Eureka is used as service registry and it has the details of available service instances.
* Donor and Donation Camp Details can be stored in a Oracle Database

**Software Resources Required:**

Miroservice – Spring boot

Spring Rest API services

Oracle database

**The Evaluation of the Case Study will be based on 4 parameter**

1. Coding Conventions (5 marks)

2. Exception Handling (5 marks)

3. Solving the Business Logic efficiently ( 10 marks)

4. Creating Layers -> Repository, Service, Controller and UI View (10 marks)

5. Output (10)

After completing the Project upload it to GITHUB and share the link .

WEB UI – Spring MVC

Oracle

Oracle

Donor Service

Donation Camp Service

Eureka Registry