

LifeStream: A Cloud-Based Online Blood Bank System

Introduction :

- This application will help the society and the needy people. When blood is required, the donor with the required blood group is identified and notified about its requirement.
- The project consists of an algorithm which tracks location of the donors. If blood is required, the donor with the required specific blood group is identified nearby to the location of the requester and notifies them too.
- If the identified nearby donors are not able to donate blood at present then the scope of tracking the donors is increased.

Problem Statement :

- To develop an easy-to-use interface for patients, blood donors, and hospitals
- To use cloud computing for displaying nearby donors, hospitals, blood banks, and ongoing blood campaigns

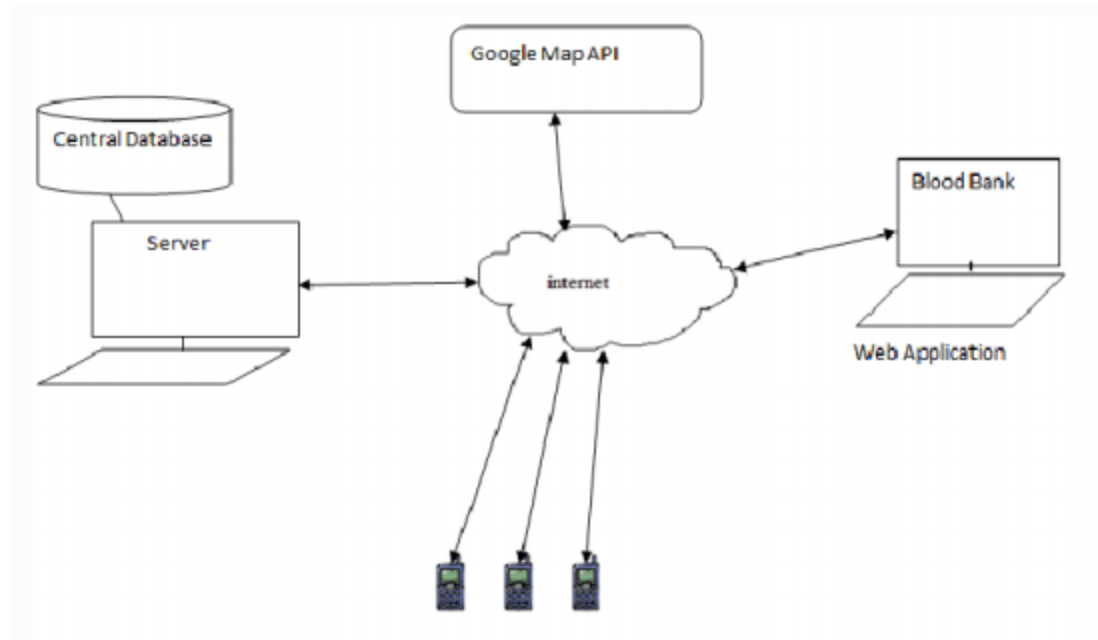
Platform :

Amazon Web Services

1. RDS: Database for maintaining a reliable, available blood bank system on cloud.
2. API Gateway: For fast, easily accessible APIs for users to inquire about availability of blood types on providing personal details.
3. Mobile text messaging (SMS) : Amazon SNS to send text messages, or *SMS messages*, to SMS-enabled devices.

Location: Google Maps API

Diagram:



Deployment :

AWS Elastic Cloud Computing(EC2) instance: To deploy the laravel application with the help of Apache2 and MySQL server.

Virtual Private Cloud: The EC2 instance will be deployed on a VPC to ensure that any malicious requests outside the system cannot access the system.

Expected Outcomes :

- The fastest way for contacting the required Blood Donors.
- Reduction in the corruption factor in Blood Bank.
- Direct communication Between the donor and the person in need of blood during the emergency period.

Project extension:

Data analysis: Eg, Predicting blood demand for coming month using AWS Machine Learning services.