



PARSHVANATH CHARITABLE TRUST'S

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Academic Year: 2022-23

Department of Computer Engineering

CLOUD COMPUTING MINI PROJECT

PROJECT TITLE: LAB MANAGEMENT SYSTEM

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Abstract :

- This project is aimed at developing a website named Blood Donor management system for managing and analysing the blood donations and donors information.
- The Blood Donor management system refers to the system and process to manage the blood donations and the information of the donors and also analysing it with the involvement of technology.
- This system can be used to store the details of the donations, its donors which can be updated weekly.

Cloud services used :

- AWS Elastic Compute Cloud.
- AWS Security Groups.
- AWS VPC

AWS Elastic Compute Cloud :

- Create an Amazon EC2 instance to host the lab management system, choosing an appropriate instance size for the expected workload. Choose an Amazon Machine Image (AMI) that includes the necessary software stack for the lab management system.
- Amazon Elastic Compute Cloud (EC2) is a cloud-based computing platform that allows users to run virtual machines (VMs) in the cloud. These VMs are created through the process of virtualization, which is the creation of a virtual version of a computing resource, such as a server or storage device.

Security Groups :

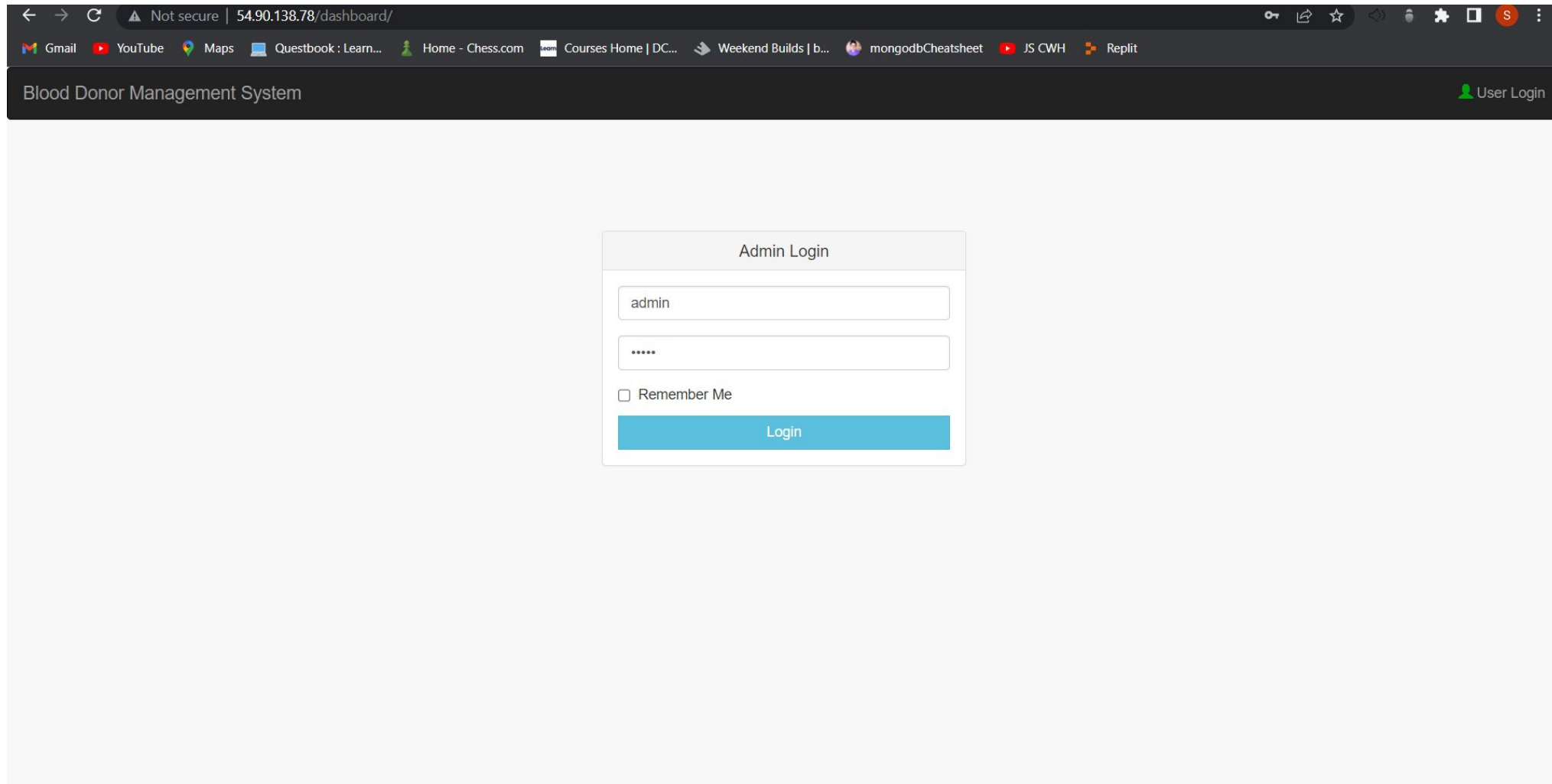
- Configure security groups to ensure that the instance is accessible from the internet only via the required ports. You might create a security group that allows access on port 80 (HTTP) and 443 (HTTPS) for web access to the system. Additionally, configure a security group that allows access to port 22 (SSH) for administrative access to the EC2 instance.
- Remote Desktop Protocol (RDP) is a widely used protocol that allows users to access a remote desktop or server from anywhere in the world. However, to ensure the security of the remote desktop session, it is important to configure the RDP client with appropriate security measures.

AWS VPC:

- Amazon Virtual Private Cloud (VPC) is a virtual network service provided by Amazon Web Services (AWS). It allows users to create an isolated virtual network in the AWS cloud, which is logically separated from other virtual networks and the public internet.
- With AWS VPC, users can create and manage a virtual network topology that closely resembles a traditional on-premises network infrastructure. Users can define and control network addressing, subnets, and routing tables, as well as configure network gateways, security groups, and network access control lists (ACLs).

Implementation :

Login page -



The screenshot displays a web browser window with the address bar showing "54.90.138.78/dashboard/". The browser's tab bar includes links to Gmail, YouTube, Maps, Questbook, Chess.com, Courses Home, Weekend Builds, mongodbCheatsheet, JS CWH, and Replit. The page title is "Blood Donor Management System", and a "User Login" link is visible in the top right corner. The main content area features a centered "Admin Login" form. This form contains two input fields: the first is labeled "admin" and the second is masked with "*****". Below these fields is a checkbox labeled "Remember Me". At the bottom of the form is a blue "Login" button.

Not secure | 54.90.138.78/dashboard/

Gmail YouTube Maps Questbook : Learn... Home - Chess.com Courses Home | DC... Weekend Builds | b... mongodbCheatsheet JS CWH Replit

Blood Donor Management System [User Login](#)

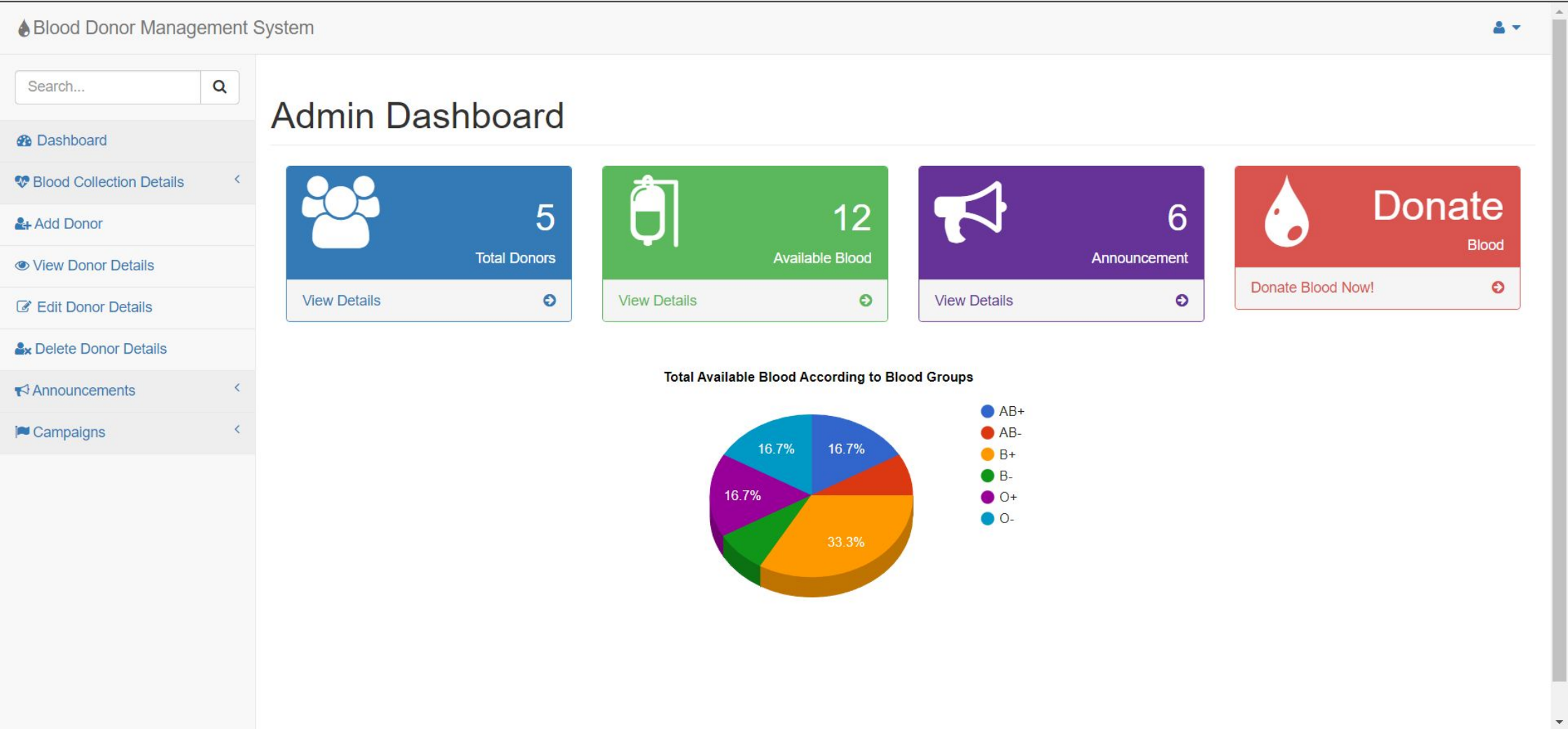
Admin Login

admin

☐ Remember Me

Login

Admin Page -



User Page -

Search... 

-  Donor's Dashboard
-  View Blood Collections
-  View Announcements
-  View Campaigns

Donor's Dashboard

12

Available Blood


[View Available Blood Details](#)



3


Campaigns Made

[View Available Campaigns](#)

6

Announcement

[View Announcement Details](#)


A red rectangular button with a white blood drop icon on the left. To the right of the icon, the word 'Donate' is written in large white font, and 'Blood' is written in smaller white font below it. At the bottom of the button, the text 'Donate Blood Now!' is written in white, followed by a white right-pointing arrow icon.

Conclusion -

In conclusion, an AWS cloud project using EC2, VPC, and Security Groups can provide a secure and scalable solution for deploying applications in the cloud. EC2 instances can be launched within a VPC, which provides an isolated virtual network environment that can be customized according to specific business needs.

Security groups can be used to control inbound and outbound traffic to the EC2 instances, while VPC network ACLs can be used to provide an additional layer of network security. AWS VPC also provides flexibility to choose the IP address range, create public and private subnets, and configure routing tables to meet specific requirements.