18CSC301J - DATA CENTRIC NETWORKING AND SYSTEM DESIGN

Project Title

BLOOD BANK MANAGEMENT SYSTEM

Submitted by

RA2011028010143 – KAKANI NUTHANA MOULI SASI VADAN

RA2011028010125 – NANDHIGAMA ABHINAV

RA2011028010142-VANUKURI JAANAKI VENKATA RAMI REDDY

Submitted to

Faculty of Engineering and Technology

Dr. Senthamarai N

Submitted on

25-11-2022

INDEX

18CCSC310J – Data Centric Networking and System Design

Mark Allocation Rubrics

S.No.	Performance Indicators	Unsatisfactory (Marks 0 to 25 %)	Developing (Marks 26 to 50 %)	Satisfactory (Marks 51 to 75 %)	Good (Marks 76 to 100 %)
1	2.1.1 Evaluate problem statements and identifies objectives – (2 Marks)	Problem Statement & Objectives not clearly defined	Problem Statement & Objectives are not precise.	Problem Statement is clearly defined & Objectives not clearly defined	Problem Statement & Objectives clearly defined
2	2.3.2 Identify design constraints for required performance criteria. – (4 Marks)	Program/configuration not written/configured based on the Scenario provided	Development of setup is not properly satisfying the performance criteria	Development of setup is Satisfying all Scenario provided but not providing any information for exceptional input	Configuration setup development is fully based on all Scenario provided
3	2.4.4 Arrive at conclusions with respect to the objectives – (2 Marks)	Functionalities are Not clearly defined	Method is identified and Proper definition missing	Method defined but unable to select the best method	Best Method Identified
4	5.2.1. Identify the strengths and limitations of tools for (i) acquiring information, (ii) modeling and simulating, (iii) monitoring system performance, and (iv) creating engineering designs [2 Marks]	Unable to justify with the limitation in the scenario	Proper justification missing	strengths and limitations not properly defined but not able to relate with industrial trends	Well clearly able to justify the strengths and limitations of the scenario with industrial trends

INTRODUCTION

The "Blood Bank Management System" has been developed to override the problems: prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. Blood Bank Management System as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources

Every organization, whether big or small, has challenges to overcome and managing the information of Blood Group, Blood Bank, Blood Stock, Record, Blood Cell. Every Blood Bank Management System has different Blood Bank needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources

Abstract

Blood Donation Management System is a android application that enables individuals who want to donate the blood to help the needy. It also enables blood donation camp organizers to record and store data for people who want to communicate with donors and it also provides centralized database. In proposed system the one organizer can see upcoming blood donation

camp of other organizer and can decide the best suitable time for organizing the Blood Donation Camp in order to receive good response. The system is developed by using Android and Firebase. We are using Waterfall Methodology to develop the system. The system targets two types of users: the individuals who want to donate the blood and the organizers who want to manage blood donation management camps. The main objective of developing the system is gather all donors under a single roof, and encourage to donate blood.

Objective

The main objective of the Blood Bank Management System is to manage the details of Blood Donor Blood Group Blood Bank, Stock. It manages all the information about Blood,Blood Cell, Stock, Blood. The project is totally built at administrative end and thus only the administrator is guaranteed the ac cess. The purpose of the project is to build an application program to reduce the manual work for managing the Blood, Donor, Blood Cell, Blood Group It tracks all the details about the Blood Group, Blood Bank, Stock.

Problem Statement

People who need blood are increasing day by day. People who have diseases like anemia or people who have gotten into accidents and run out of blood need constant supply of blood to sustain their life and there is not enough blood available for them. It is not that people do not want to donate blood, but because they have no idea where they can donate. It is important for the people who are excited to donate, but yet are very busy, to be sure where and when they can donate, and therefore We are designing a system which contains all the information regarding blood donation camps ongoing in a particular area so that people who want to donate blood will get information regarding these camps.

Our System is a mobile application which aims to serve as a communication tool between Blood Donation camp Organizers and blood donors. To become a member of the system, donors need to create their profile by providing the information like name, blood group, email address, password, and exact location from “Google Map”. In order to find out the exact location of a donor, Google Map is integrated with this application. The mobile application

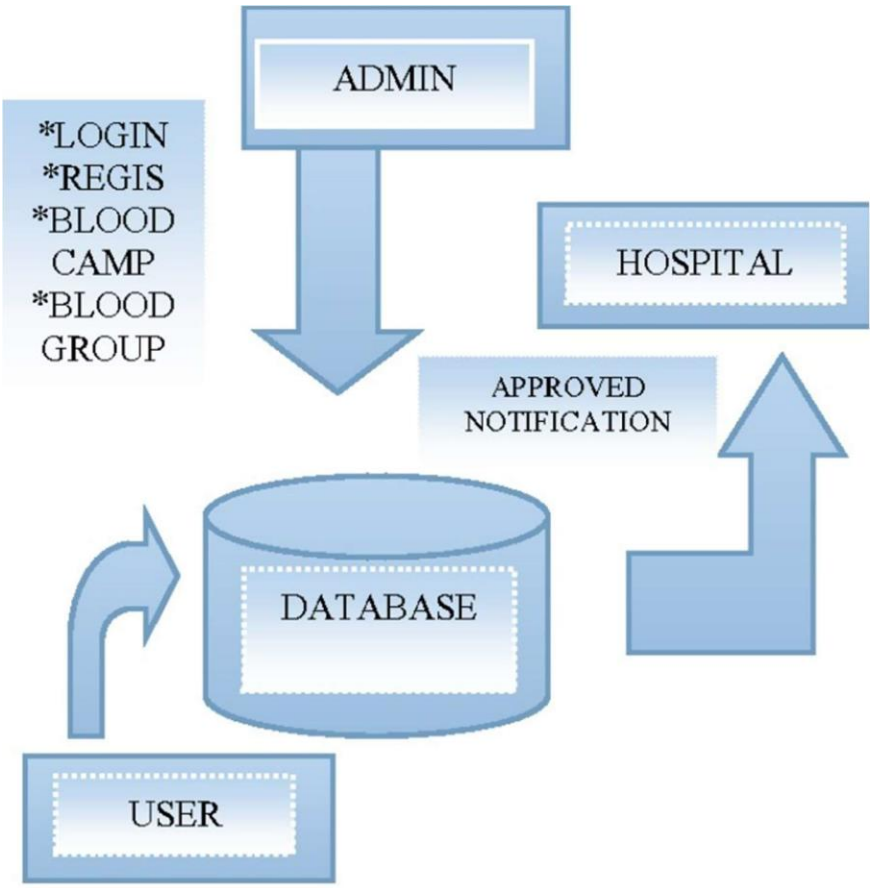
always keeps updating the location of a donor. As a result, the system can automatically keep showing the nearby Blood donation Camps to the registered donor wherever they go, and donors can easily get the idea of nearby blood donation camps. Also, users can get information regarding the type of blood which is available and information of past as well as future events.

Recommended Solution

The basic solution is to create a centralized system to keep a track on the upcoming as well as past Blood Donation Events. The recommendation solution is as follows:

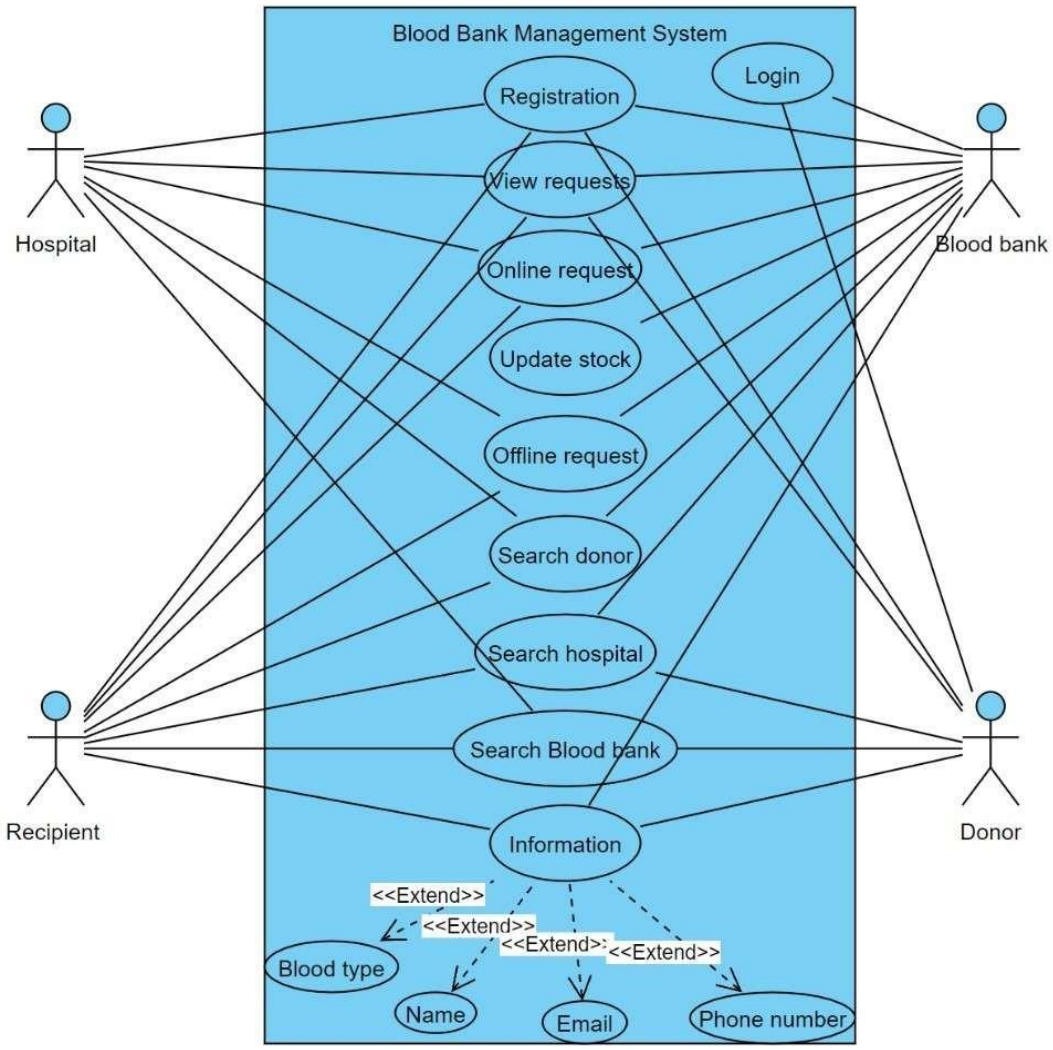
- Donors will save the donor card digitally.
- The Programmer Officer will be able to predict the feasible date in order to get the maximum response.
- An Emergency button is introduced in order to guarantee the safety of Donors.
- The call will be dialed automatically to the ambulance once the donor meets an accident.
- A centralized system is designed in order to keep a record of the past and upcoming events.

System Architecture

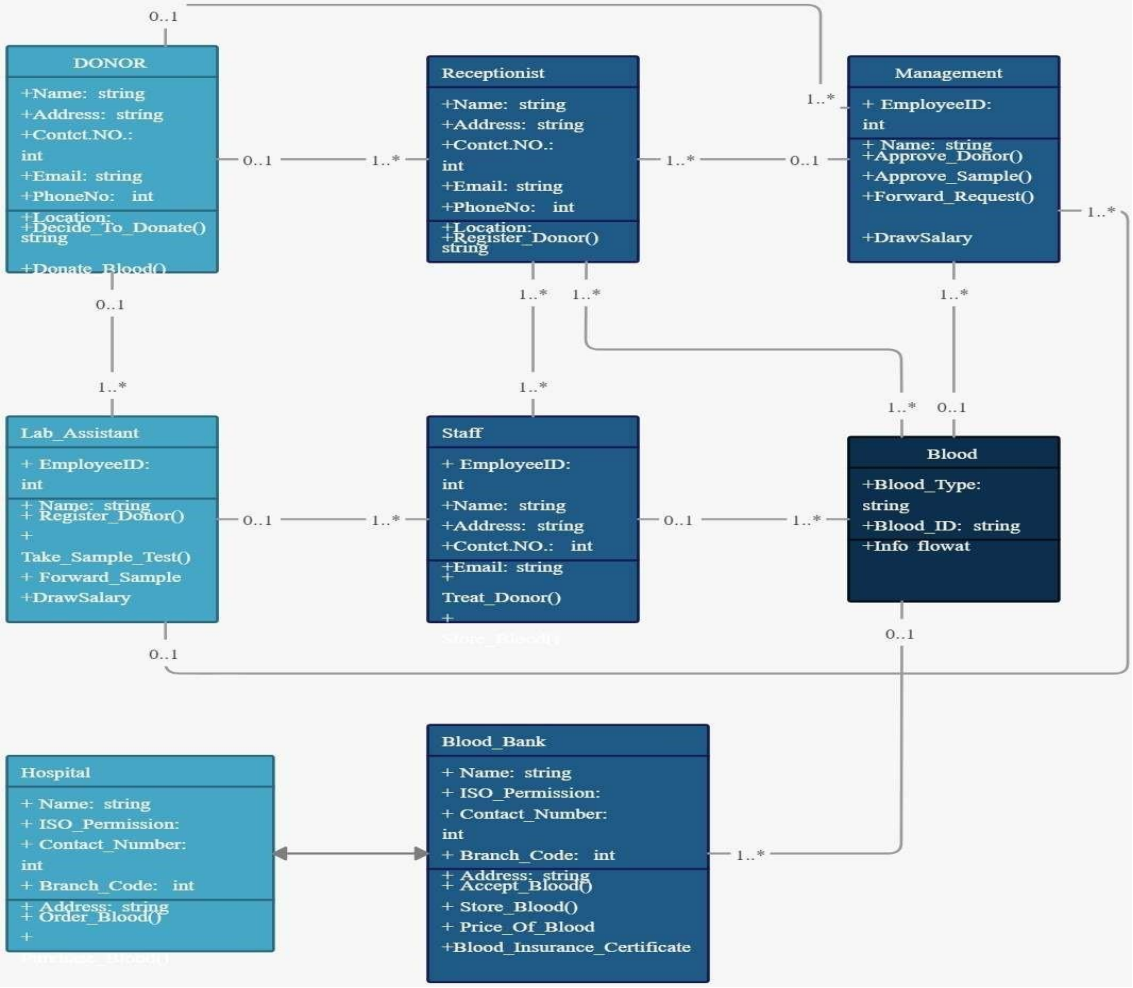


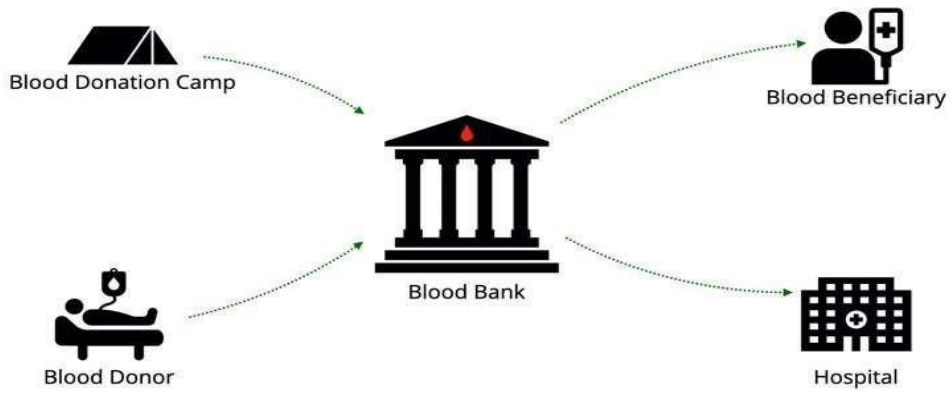
UML DIAGRAMS

Use Case diagram

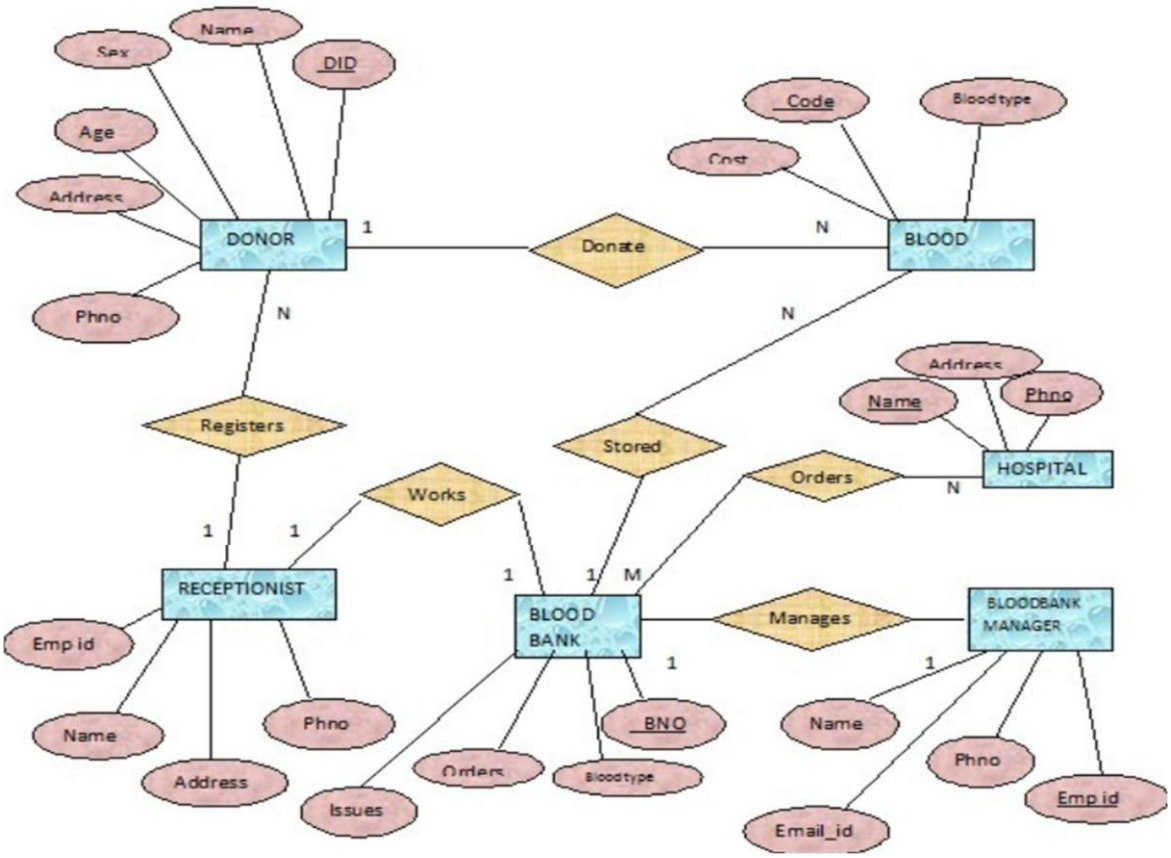


Class diagram



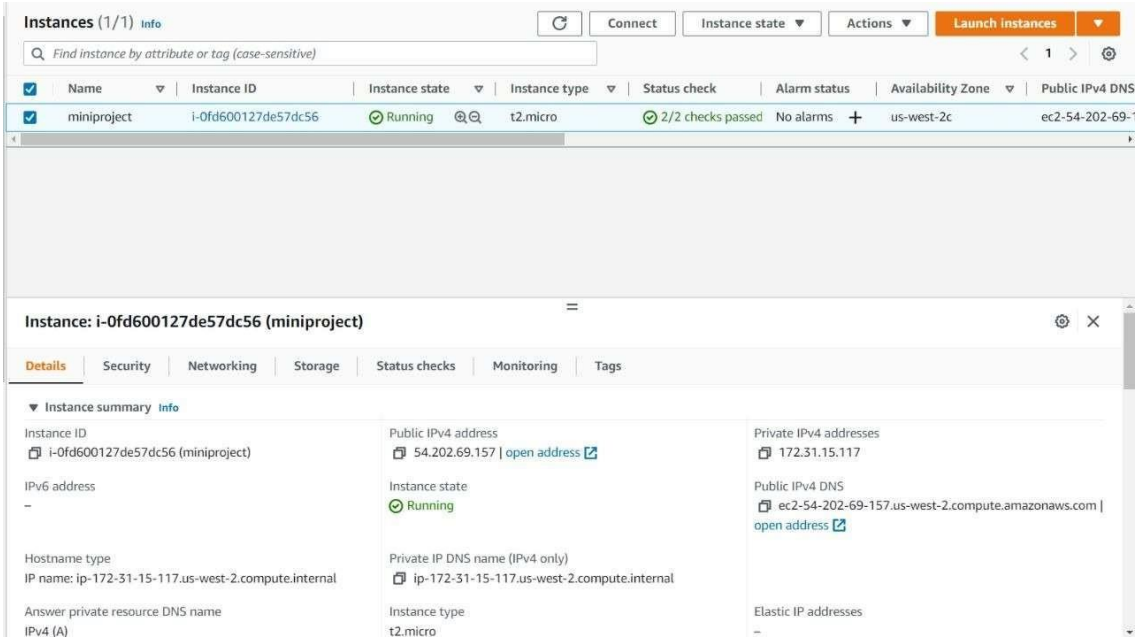


ER diagram

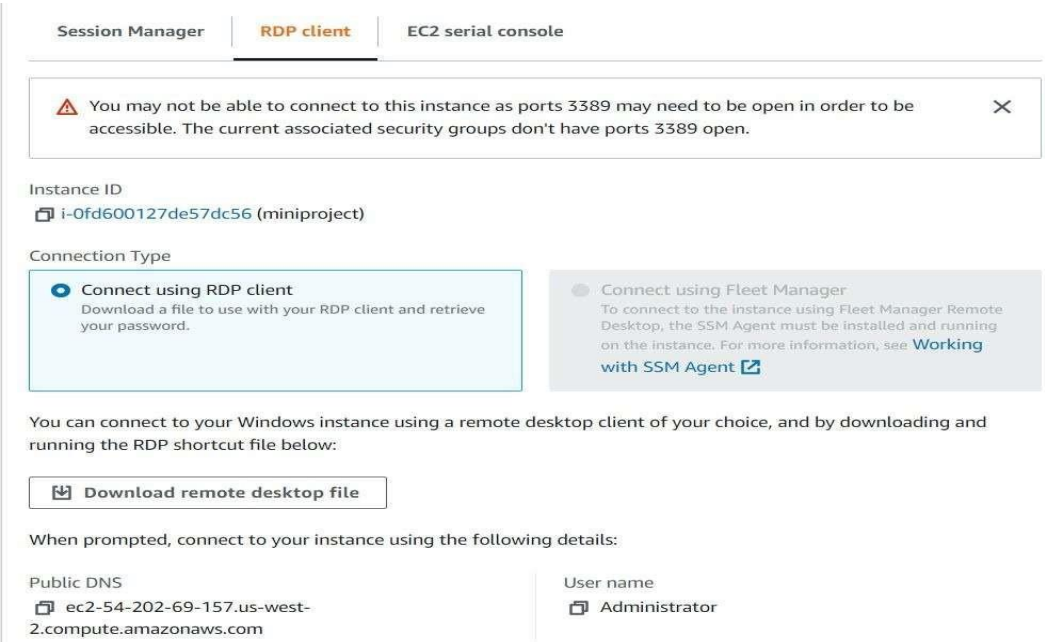


PROCEDURE

1. Create an EC2 instance

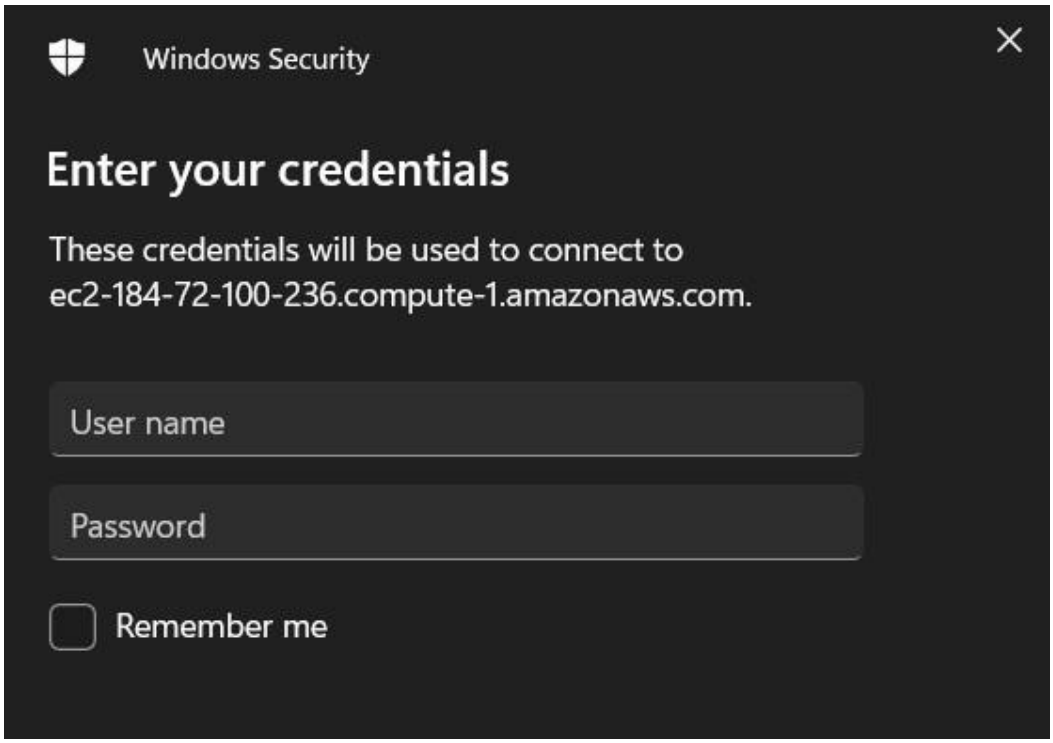


2. Go to RDP client and download remote desktop file. Get username and password. Click on connect.

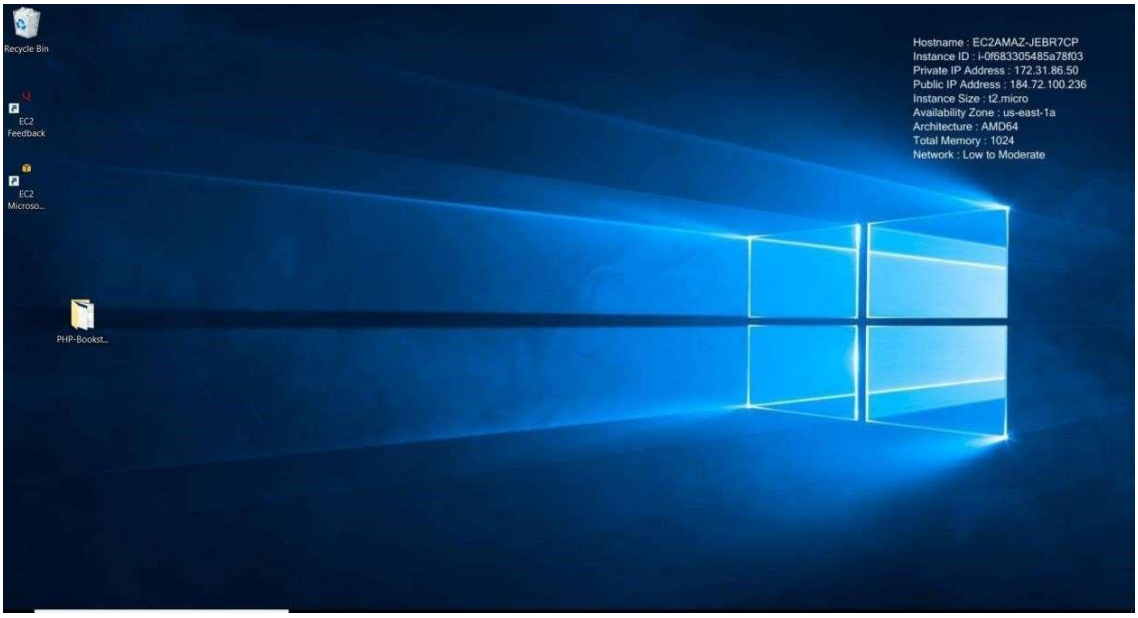


3. Search for remote desktop connection in your computer and provide the required details.

4. After clicking on connect it moves to window security page from there copy and paste the username and password from RDP client page.



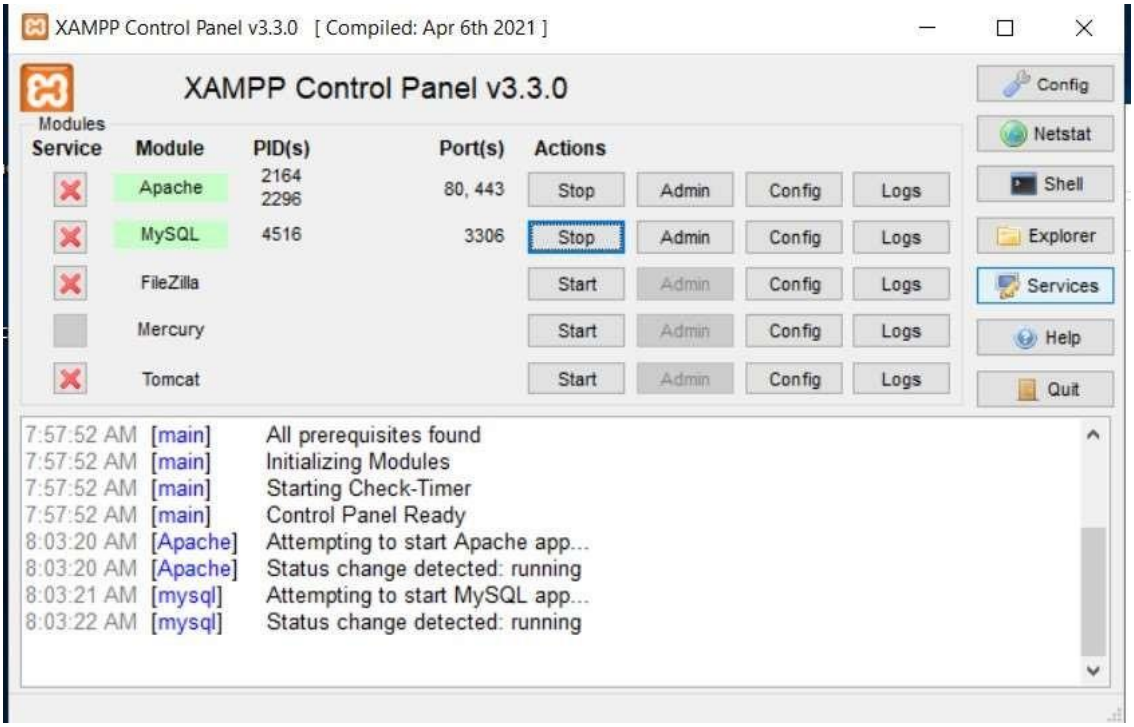
5. After filling the required credentials now the instances is opened



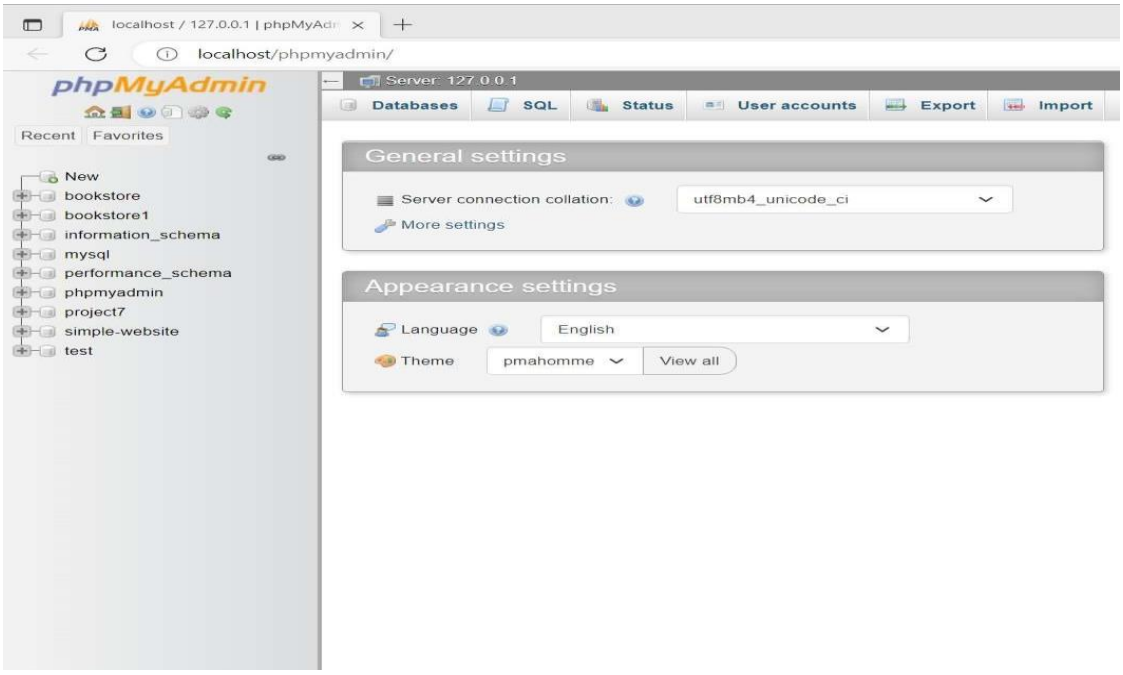
6. Now open browser and download XAMPP application in you instance.

7. Now open XAMPP file saved in the local disk and click on htdocs

8. Now open the XAMPP control panel and click on start for apache and the MySQL



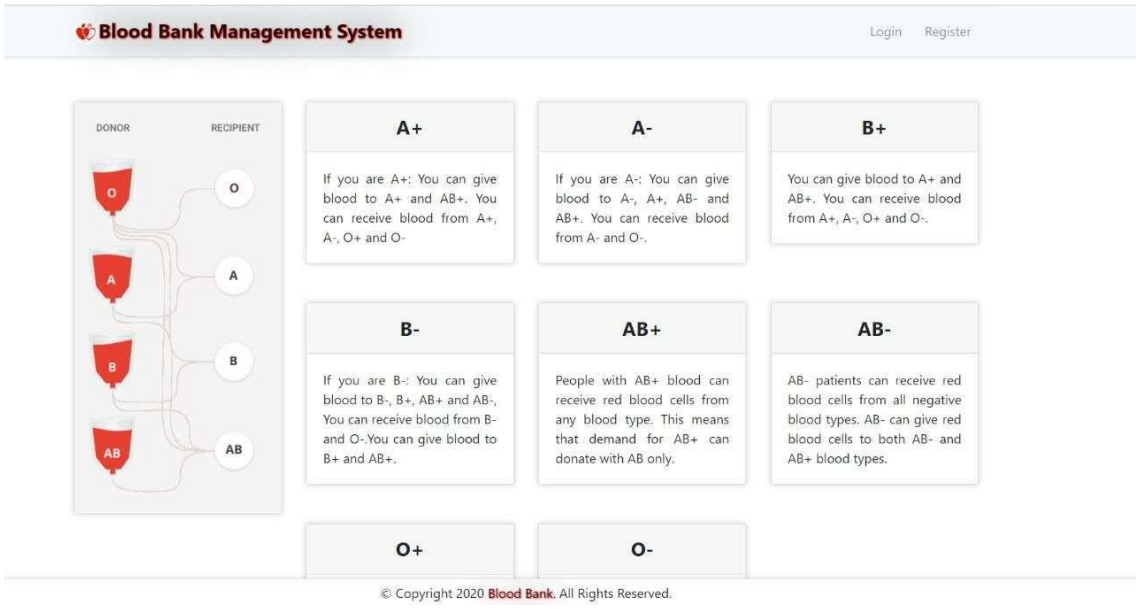
9. Click on admin in my sql section and you will be redirected to the PHPmyADMIN page.



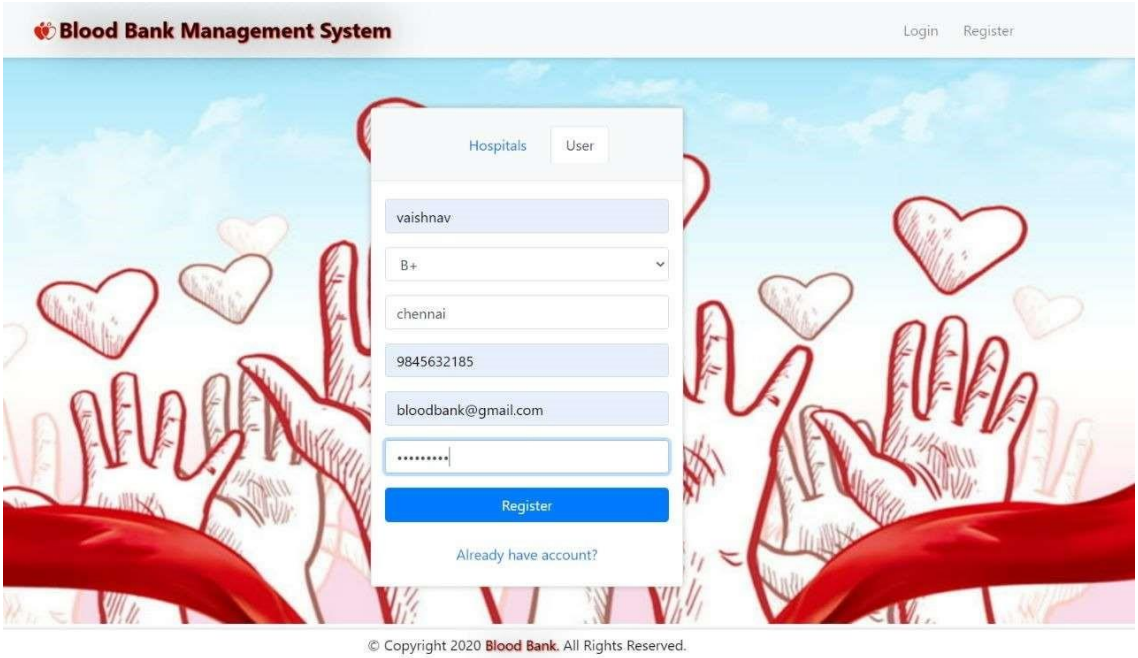
10. Now open the website which you hosted in the EC2 in new tab.


Blood Bank Management System
Home
About
Contact
Login/Register
HELP SAVE A LIFE
GIVE THE GIFT OF BLOOD
© Copyright 2020 Blood Bank. All Rights Reserved.

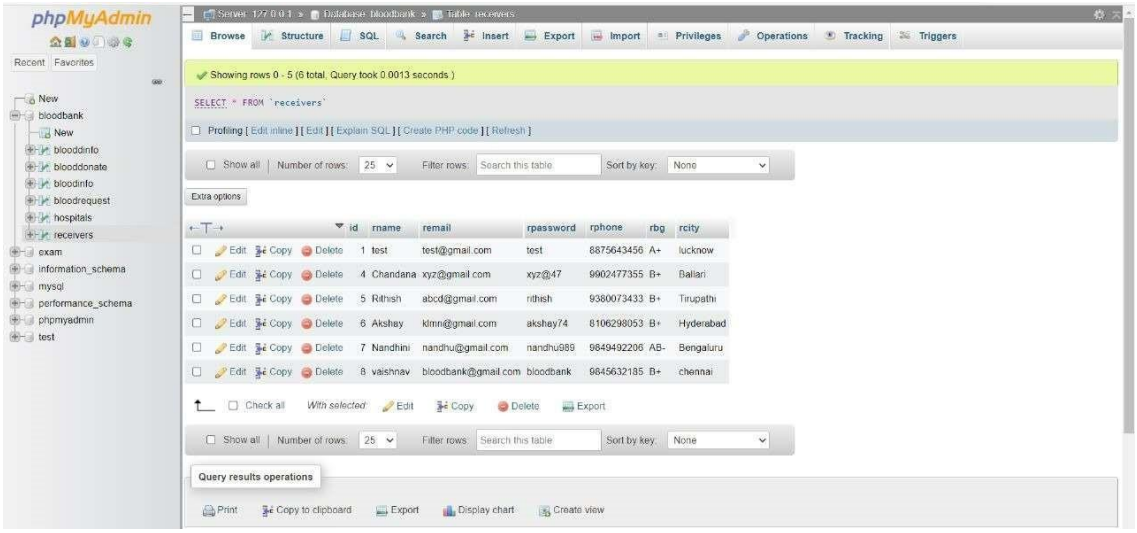

USER
The blood you donate gives someone another chance at life.
GIVE THE GIFT OF LIFE
DONATE BLOOD
MY ACCOUNT
BLOOD INFO
BLOOD AVAILABLE
STATUS OF REQUEST
BLOOD DONATION REQUEST
LOGOUT



11. Now click on register or the section where to fill details and fill accordingly



12. After filling the details Go back to the admin page and in the user section you can see all user datas are stored.


phpMyAdmin
Recent Favorites
New
bloodbank
New
blooddinfo
blooddonate
bloodinfo
bloodrequest
hospitals
receivers
exam
information_schema
mysql
performance_schema
phpmyadmin
test
Server: 127.0.0.1 » Database: bloodbank » Table: receivers
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
Showing rows 0 - 5 (6 total, Query took 0.0013 seconds.)
SELECT * FROM `receivers`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None
Extra options
id rname remail rpassword rphone rbg rcity
Edit Copy Delete 1 test test@gmail.com test 8875643456 A+ lucknow
Edit Copy Delete 4 Chandana xyz@gmail.com xyz@47 9902477355 B+ Ballari
Edit Copy Delete 5 Rithish abcd@gmail.com rithish 9380073433 B+ Tirupathi
Edit Copy Delete 6 Akshay klmni@gmail.com akshay74 8106298053 B+ Hyderabad
Edit Copy Delete 7 Nandhini nandhu@gmail.com nandhu989 9849492206 AB- Bengaluru
Edit Copy Delete 8 vaishnav bloodbank@gmail.com bloodbank 9845632185 B+ chennai
Check all With selected: Edit Copy Delete Export
Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None
Query results operations
Print Copy to clipboard Export Display chart Create view

SOURCE CODE

```
SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
START TRANSACTION;
SET time_zone = "+00:00";


/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8mb4 */;

--
-- Database: `bloodbank`
--

-- --------------------------------------------------------

--
-- Table structure for table `blooddinfo`
--

CREATE TABLE `blooddinfo` (
  `bdid` int(11) NOT NULL,
  `rid` int(11) NOT NULL,
  `bg` varchar(10) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
-- Dumping data for table `blooddinfo`
--
```

```
INSERT INTO `blooddinfo` (`bdid`, `rid`, `bg`) VALUES
(10, 1, 'A+'),
(11, 1, 'B-'),
(12, 4, 'B+'),
(13, 4, 'O+'),
(14, 5, 'B+'),
(15, 5, 'B-'),
(16, 5, 'O+'),
(17, 6, 'B+'),
(18, 6, 'AB+'),
(19, 6, 'A-'),
(20, 7, 'AB-'),
(21, 7, 'A-'),
(22, 7, 'O-'),
(23, 1, 'A-');

-- --------------------------------------------------------

--
-- Table structure for table `blooddonate`
--

CREATE TABLE `blooddonate` (
  `donoid` int(11) NOT NULL,
  `rid` int(11) NOT NULL,
  `hid` int(11) NOT NULL,
  `bg` varchar(11) NOT NULL,
  `status` varchar(100) NOT NULL DEFAULT 'Pending'
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
-- --------------------------------------------------------

--
-- Table structure for table `bloodinfo`
--

CREATE TABLE `bloodinfo` (
  `bid` int(11) NOT NULL,
  `hid` int(11) NOT NULL,
  `bg` varchar(10) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
-- Dumping data for table `bloodinfo`
--

INSERT INTO `bloodinfo` (`bid`, `hid`, `bg`) VALUES
(7, 1, 'A-'),
(8, 1, 'O+'),
(12, 4, 'A-'),
(13, 4, 'A+'),
(14, 4, 'AB+'),
(16, 5, 'A+'),
(17, 5, 'B-'),
(18, 5, 'O-'),
(20, 5, 'B+'),
(21, 6, 'O+'),
(22, 6, 'A-'),
(23, 6, 'O-'),
(24, 7, 'A-'),
(25, 7, 'A+'),
```

```
(26, 7, 'B-'),
(27, 7, 'B+'),
(31, 1, 'B-');

-- --------------------------------------------------------

--
-- Table structure for table `bloodrequest`
--

CREATE TABLE `bloodrequest` (
  `reqid` int(11) NOT NULL,
  `hid` int(11) NOT NULL,
  `rid` int(11) NOT NULL,
  `bg` varchar(11) NOT NULL,
  `status` varchar(100) NOT NULL DEFAULT 'Pending'
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

-- --------------------------------------------------------

--
-- Table structure for table `hospitals`
--

CREATE TABLE `hospitals` (
  `id` int(11) NOT NULL,
  `hname` varchar(100) NOT NULL,
`hemail` varchar(100) NOT NULL,
  `hpassword` varchar(100) NOT NULL,
  `hphone` varchar(100) NOT NULL,
  `hcity` varchar(100) NOT NULL
```

```
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;


--
-- Dumping data for table `hospitals`
--

INSERT INTO `hospitals` (`id`, `hname`, `hemail`, `hpassword`, `hphone`, `hcity`) VALUES
(1, 'Gandhi hospital', 'gandhi@gmail.com', 'gandhi', '7865376358', 'Delhi'),
(4, 'Arunodhaya', 'arunodhaya@gmail.com', 'arunodhaya', '9898988909', 'Ballari'),
(5, 'Columbia Asia', 'columbia@gmail.com', 'asia47', '080616156262', 'Bengaluru'),
(6, 'Apollo Hospital', 'apollo@gmail.com', 'apollo247', '04428293333', 'Chennai'),
(7, 'Sree Amaravathi Multispeciality Hospital', 'sreeamaravathihospitals@gmail.com', 'amaravathi', '09441432567', 'Amaravathi');

-- --------------------------------------------------------

--
-- Table structure for table `receivers`
--

CREATE TABLE `receivers` (
  `id` int(11) NOT NULL,
  `rname` varchar(100) NOT NULL,
  `remail` varchar(100) NOT NULL,
  `rpassword` varchar(100) NOT NULL,
  `rphone` varchar(100) NOT NULL,
  `rbg` varchar(10) NOT NULL,
  `rcity` varchar(100) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
```

```
-- Dumping data for table `receivers`
--

INSERT INTO `receivers` (`id`, `rname`, `remail`, `rpassword`, `rphone`, `rbg`, `rcity`) VALUES
(1, 'test', 'test@gmail.com', 'test', '8875643456', 'A+', 'lucknow'),
(4, 'Chandana', 'xyz@gmail.com', 'xyz@47', '9902477355', 'B+', 'Ballari'),
(5, 'Rithish', 'abcd@gmail.com', 'rithish', '9380073433', 'B+', 'Tirupathi'),
(6, 'Akshay', 'klmn@gmail.com', 'akshay74', '8106298053', 'B+', 'Hyderabad'),
(7, 'Nandhini', 'nandhu@gmail.com', 'nandhu989', '9849492206', 'AB-', 'Bengaluru');

--
-- Indexes for dumped tables
--

--
-- Indexes for table `blooddinfo`
--
ALTER TABLE `blooddinfo`
  ADD PRIMARY KEY (`bdid`),
  ADD KEY `blooddinfo_ibfk_2` (`rid`);

--
-- Indexes for table `blooddonate`
--
ALTER TABLE `blooddonate`
  ADD PRIMARY KEY (`donoid`),
  ADD KEY `rid` (`rid`);

--
-- Indexes for table `bloodinfo`
--
```

```
ALTER TABLE `bloodinfo`
  ADD PRIMARY KEY (`bid`),
  ADD KEY `hid` (`hid`);

--
-- Indexes for table `bloodrequest`
--
ALTER TABLE `bloodrequest`
  ADD PRIMARY KEY (`reqid`),
  ADD KEY `hid` (`hid`);

--
-- Indexes for table `hospitals`
--
ALTER TABLE `hospitals`
  ADD PRIMARY KEY (`id`);

--
-- Indexes for table `receivers`
--
ALTER TABLE `receivers`
  ADD PRIMARY KEY (`id`);

--
-- AUTO_INCREMENT for dumped tables
--

--
-- AUTO_INCREMENT for table `blooddinfo`
--
ALTER TABLE `blooddinfo`
```

```
 MODIFY `bdid` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=27;

--
-- AUTO_INCREMENT for table `blooddonate`
--
ALTER TABLE `blooddonate`
 MODIFY `donoid` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=6;

--
-- AUTO_INCREMENT for table `bloodinfo`
--
ALTER TABLE `bloodinfo`
 MODIFY `bid` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=32;

--
-- AUTO_INCREMENT for table `bloodrequest`
--
ALTER TABLE `bloodrequest`
 MODIFY `reqid` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=7;

--
-- AUTO_INCREMENT for table `hospitals`
--
ALTER TABLE `hospitals`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=8;

--
-- AUTO_INCREMENT for table `receivers`
--
ALTER TABLE `receivers`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=8;
```

```
--
-- Constraints for dumped tables
--


--
-- Constraints for table `blooddinfo`
--
ALTER TABLE `blooddinfo`
  ADD CONSTRAINT `blooddinfo_ibfk_2` FOREIGN KEY (`rid`) REFERENCES `receivers` (`id`);


--
-- Constraints for table `bloodinfo`
--
ALTER TABLE `bloodinfo`
  ADD CONSTRAINT `bloodinfo_ibfk_1` FOREIGN KEY (`hid`) REFERENCES `hospitals`
(`id`);
COMMIT;


/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```

CONCLUSION

Blood is the most essential thing to save a life. By donating blood, we can save many lives. It is also important to remember that any one of us may need blood at some point in our lives, making blood donation is an essential duty of our citizenry. In today's world where people are busy with their lifestyle and those who are eager to donate blood but are not able to, can plan to donate blood by sitting at home just by one click with our application . This application will make revolutionary changes to the medical system as people will be able to donate blood and serve mankind. It can also help people to know about the benefits about blood donation and that their small contribution can help one person to save his/her lives as soon as possible in a quick and well managed manner.

REFERENCES

https://www.irjet.net/archives/V7/i4/IRJET-V7I4977.pdf

https://www.analyticsvidhya.com/blog/2022/04/host-dynamic-website-using-aws-ec2instance/