ONLINE BLOOD DONATION SYSTEM

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ONLINE BLOOD DONATION SYSTEM

ABSTRACT:

Blood donation is required during an organ transplant, accidents, cancer treatment etc. For blood donation, one needs to check for a donation camp or needs to visit blood bank. The Manual Blood donation system has many disadvantages. This online blood donation management system maintains the list of blood donors and also helps the recipients to track and search the right donor easily. This project aims at maintaining all information regarding blood donors, different blood groups available in blood banks as wells as blood camps and help them manage in a better way.

INTRODUCTION:

It has two modules namely Admin and User. Admins can add hospitals having blood banks and can also add various blood donation camps. He/she can also view the list of donors of a particular area with proper Blood cross match. He/she can also check for blood requests and in case of emergency he/she can send notifications to blood donors as per the requirements. Users can register and make a request. Users can also register as a donor. Donors can check for Blood camps and hospitals for blood donation and will be getting notifications in case of emergency. They can either accept or ignore it.

The Manual Blood donation system has many disadvantages which includes time consuming, often leads to error prone results, consumes lot of manpower, lacks donor information, retrieval of data takes a lot o f time, percentage of accuracy is less. In the time of emergency, it becomes difficult to approach the right donor. Rare blood groups are not available all the time at all blood banks and recipients find difficulties to track the right blood donor. To overcome this problem, we have proposed a system. There are many blood donation management systems, but this system only maintain the information of blood banks and donors. But our project has proposed a system which not only maintains the

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information of blood banks, but also maintains information of blood camps which makes blood transfusion process easier.

MOTIVATION:

The Online Blood Bank has motive for the social service. The bank has details of the all donor and recipient information. The Bank has many registered donors who have always focused to donate blood for emergency. Our job is completed by having the donors and their details, the recipient has to contact, if they seek blood.

The persons who are interested in donating of blood can contact us and registered with us to help the society. The registered donors should felt proud that they are doing a good job for the cause of the society.

REQUIREMENTS:

Functional requirements:

login:
     The system provides security features through username and password matching where only authorised users can access the system with different authorization level.

Donor profile registration:
 This allows healthy public to register as volunteer donor.

Blood stock management:
  The blood bank staffs can manage the blood stock starting from the blood collection, to blood screening processing storage, transference and transfusion through this system.Each process or work flow can be traced from the database.

Reporting:
The system is able to generate pre defined results such as the list of donors,recipients ,staff, the blood quantity in the bank and charts.

Non-Functional requirements:

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Availability:

The system should be available at all times, meaning the user can access it using application.

In case of hardware failure hardware failure or database corruption,a replacement page will be shown.Also backup of the database should be retrieved from the application data folder and saved by administrator.

Security:

The system use SSL(secured socket layer) in all transactions that include any confidential customer information.

Performance:

The system is interactive and the delay involved are less.

Reliability:

As the system provides the right tools for problem solving it is made in such a way that the system is reliable in its operations and for securing the sensitive details.

UML DIAGRAMS:

USECASE DIAGRAM:

Use case diagrams are used to gather the requirements of a system including internal and external influences. These requirements are mostly design requirements. Hence, when a system is analyzed to gather its functionalities, use cases are prepared and actors are identified.

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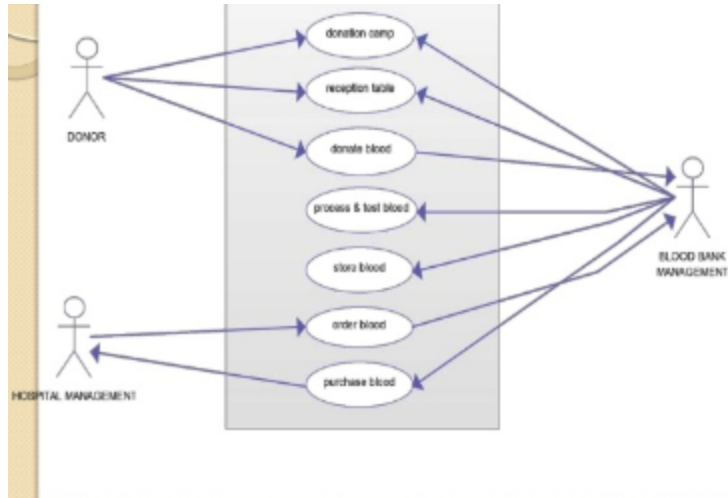
CLASS DIAGRAM:

Class diagram is a static diagram.Class diagram describes the attributes and operations of a class and also the constraints imposed on the system. The class diagrams are widely used in the modeling of objectoriented systems because they are the only UML diagrams, which can be mapped directly with object-oriented languages.Class diagram shows a collection of classes, interfaces, associations, collaborations, and constraints. It is also known as a structural diagram.

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class diagram for BLOOD BANK MANAGEMENT SYSTEM
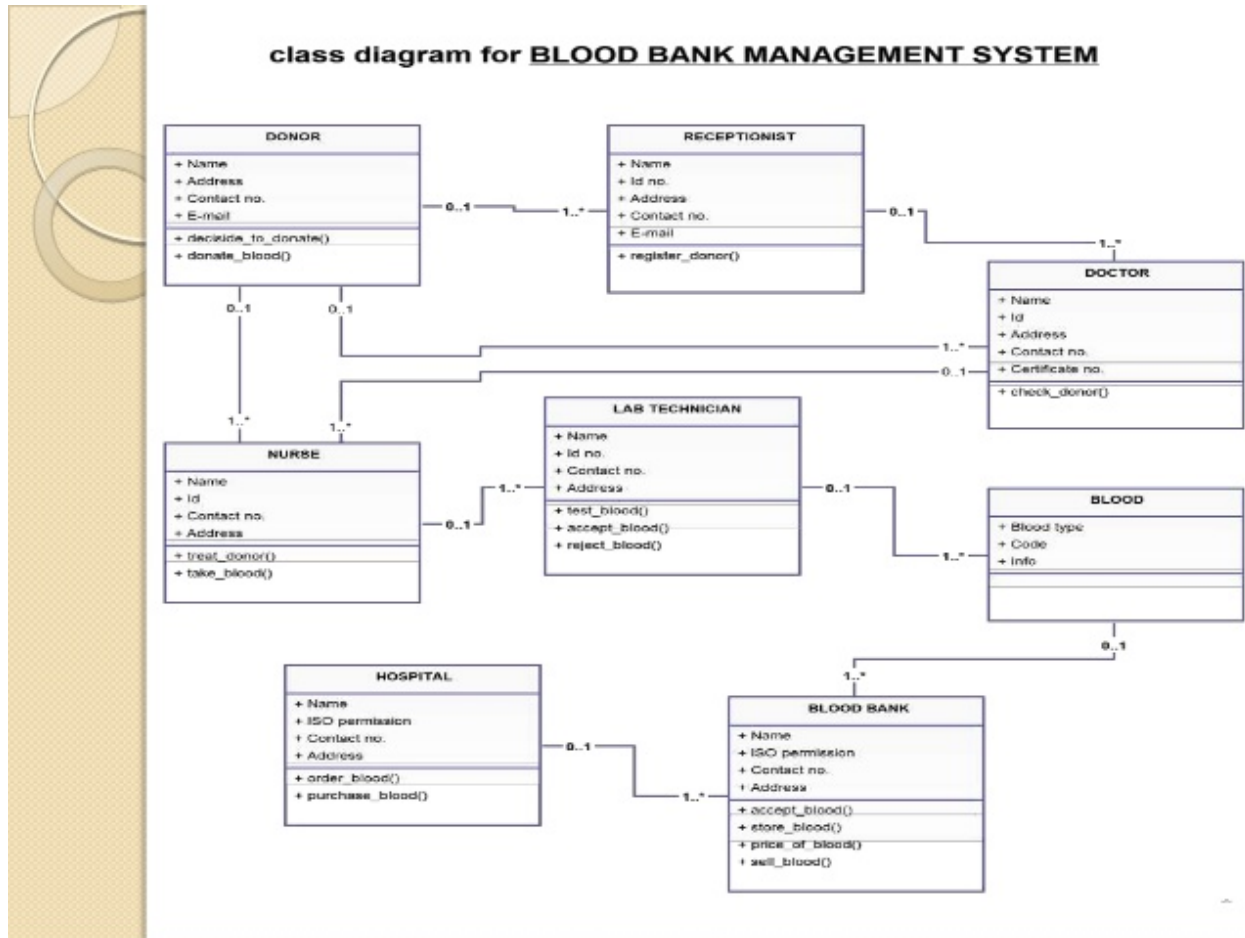
STATECHART DIAGRAM:

The name of the diagram itself clarifies the purpose of the diagram and other details. It describes different states of a component in a system. The states are specific to a component/object of a system.A Statechart diagram describes a state machine. State machine can be defined as a machine which defines different states of an object and these states are controlled by external or internal events.

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state diagram for BLOOD BANK MANAGEMENT SYSTEM

Blood Bank Management System

- idle
- donor decide to donate blood
- donor registration
- if not eligble
- donor checking
- if eligble
- take blood
- test & process blood
- if not pure → discard blood
- if pure
- send blood to blood-bank
- if not verified
- verify & store blood
- if not correct
- if verified
- delivery to hospital
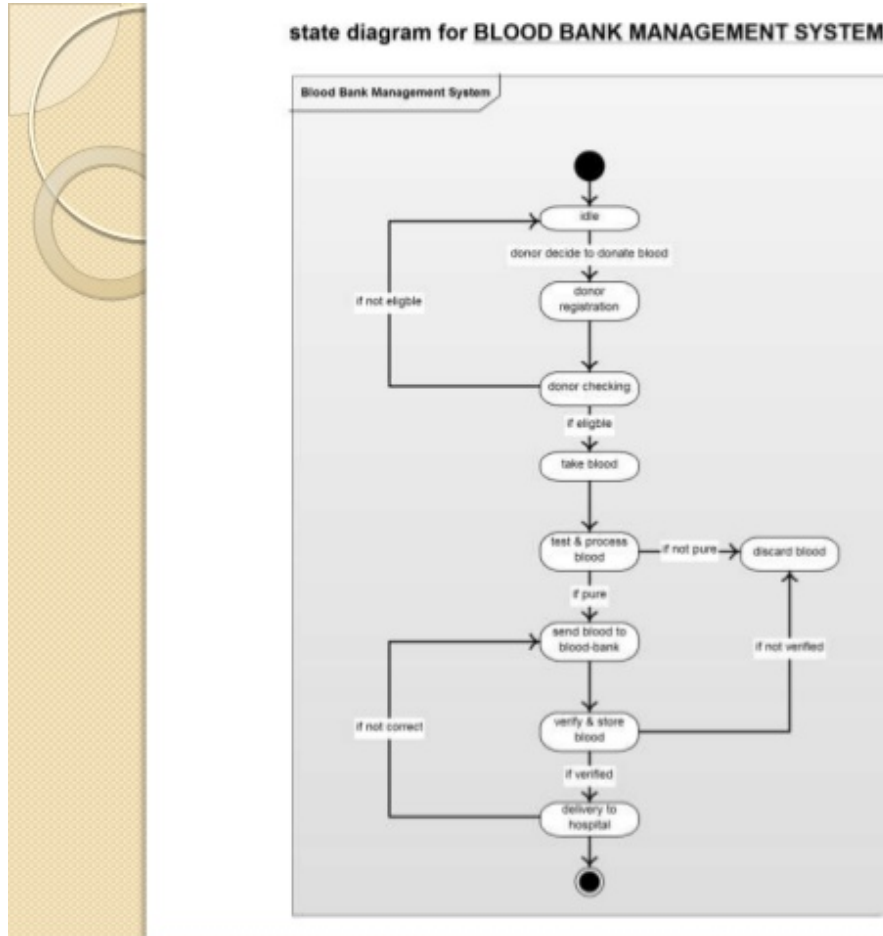
ACTIVITY DIAGRAM:

Activity diagram is another important diagram in UML to describe the dynamic aspects of the system.Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system.control flow is drawn from one operation to another. This flow can be sequential, branched, or concurrent. Activity diagrams deal with all type of flow control by using different elements such as fork, join, etc.

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activity diagram for BLOOD BANK MANAGEMENT SYSTEM
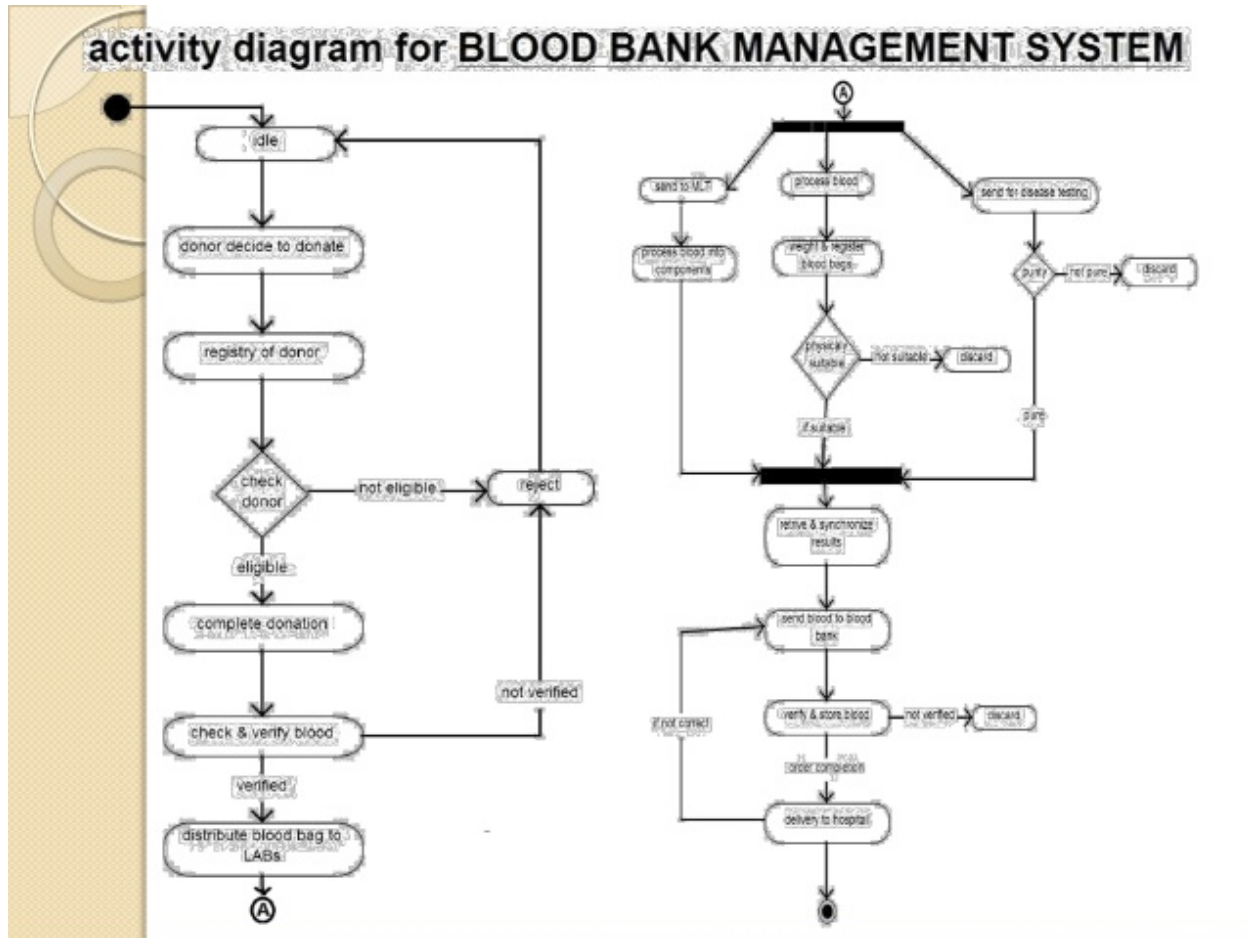
SEQUENCE DIAGRAM:

The sequence diagram captures the time sequence of the message flow from one object to another object.Following things are to be identified clearly before drawing the sequence diagram

- Objects taking part in the interaction.
- Message flows among the objects.
- The sequence in which the messages are flowing.
- Object organization.

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sequence diagram for BLOOD BANK MANAGEMENT SYSTEM
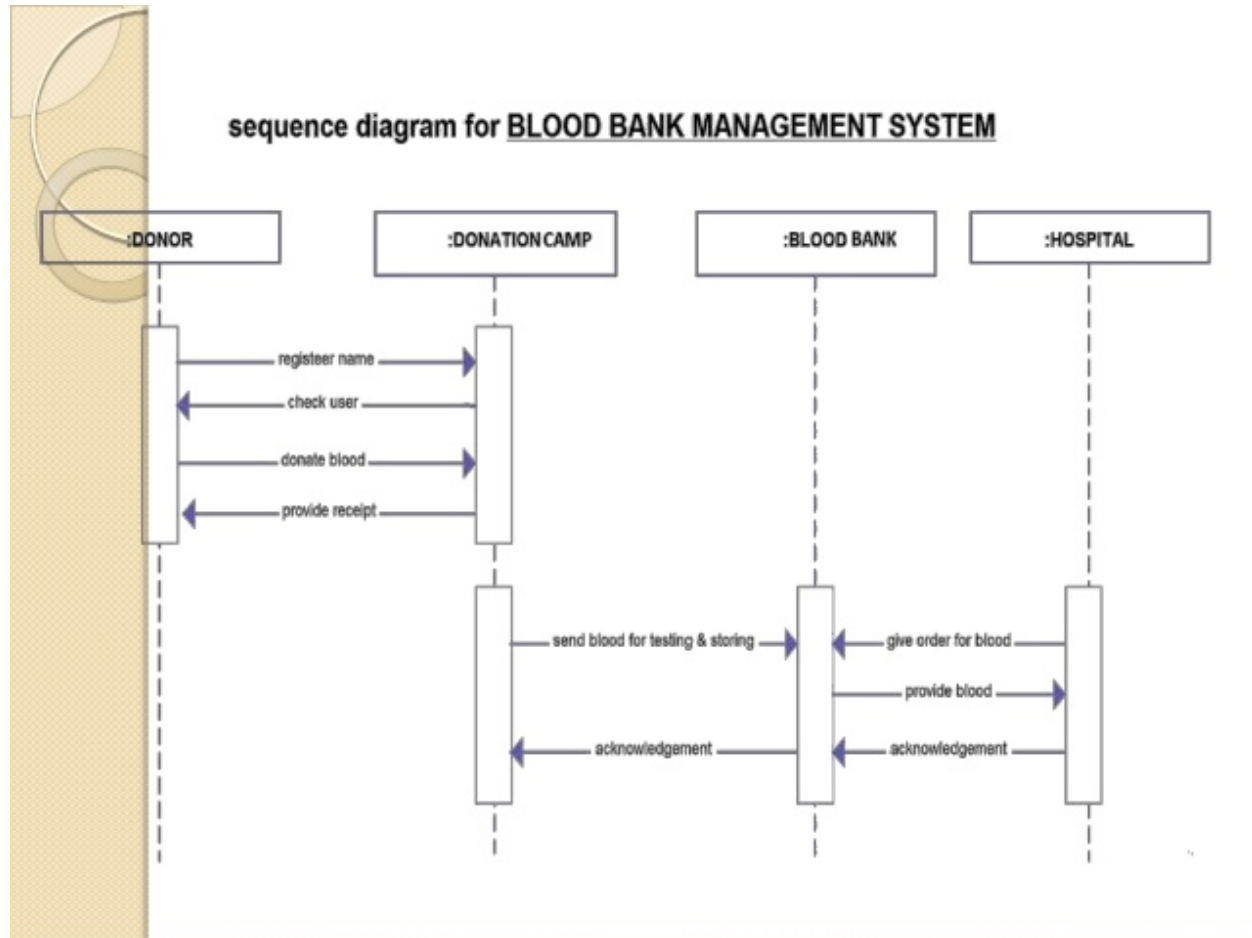
COLLABORATION DIAGRAM:

The collaboration diagram describes the organization of objects in a system taking part in the message flow.Following things are to be identified clearly before drawing the collaboration diagram

- Objects taking part in the interaction.
- Message flows among the objects.
- The sequence in which the messages are flowing.
- Object organization.

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IMPLEMENTATION METHODOLOGY:

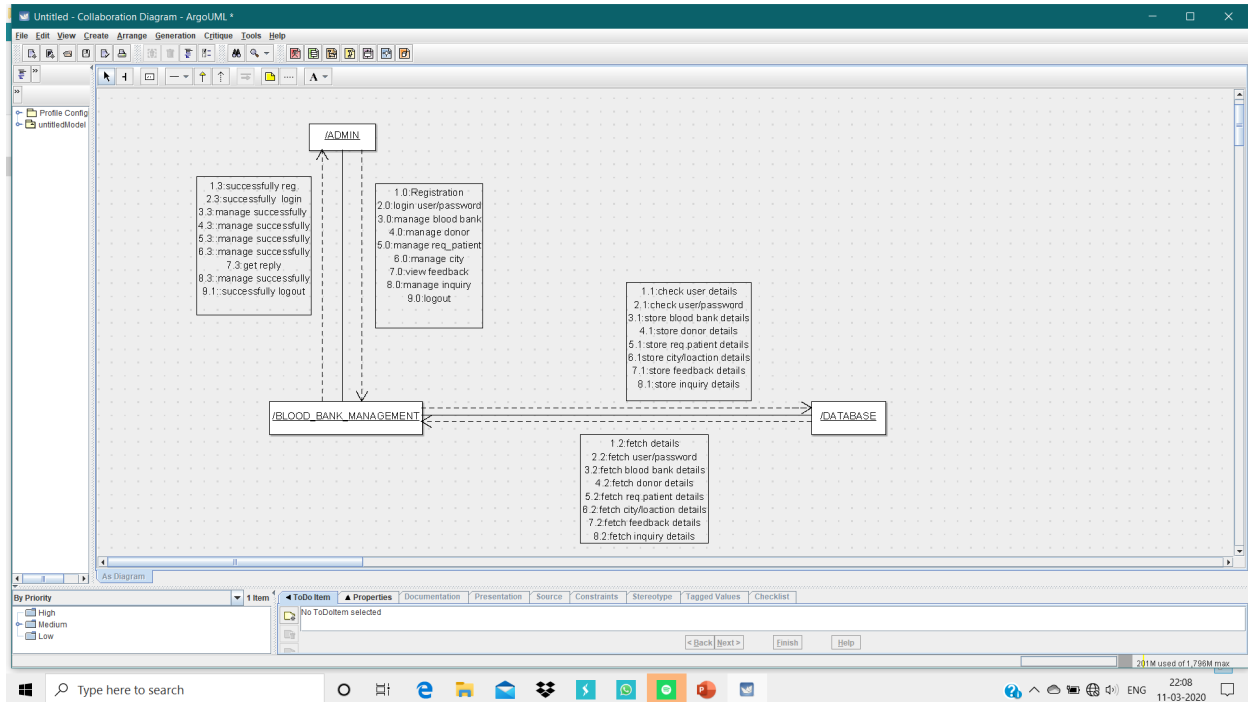Online Blood Donation management System project is aimed to developing an online Blood Donation Information. The entire Online Blood Donation management System project has been developed keeping in view of the distributed client server computing technology, in mind. The Blood Donation Agent is to create an e-Information about the donor and organization that are related to donating the blood. Through this Online Blood Donation management System application any person who is interested in donating the blood can register himself in the same way if any organization wants to register itself with this site that can also register. Moreover if any general consumer wants to make request blood online he can also take the help of this site. Admin is the main authority who can do addition, deletion, and modification if required.

Online Blood Donation management System project is designed such that it follows the view of distributed architecture having centralized storage of the database part. By using the constructs of MS-SQL Server and all the user interfaces have been designed using the ASP.Net technologies. The

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database connectivity is planned using the "SQL Connection" methodology. The standards of security and data protective mechanism have been given a big choice for proper usage. The application takes care of different modules and their associated reports, which are produced as per the applicable strategies and standards that are put forwarded by the administrative staff

RESULT:

<html>

<head>

<meta name="viewport" content="width=device-width, initial-scale=1">

<style>

</style>

<title>Blood donation

</title>

</head>

<body bgcolor="#F1F3F6">

<table border="0" width="100%" bgcolor="#FF0000">

<td align="center"><img src="https://encrypted-tbn0.gstatic.com/images?q=tbn%3AA

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Nd9GcT_qe9yCP1ragczxSs4yCc_gW8rONjylztCgiWcSYHUxSRE1o2R"</td>

</table>

<table border="0" width="100%" bgcolor="#FF0000">

<th><p>Home</p></th>

<th><p>Donor Registration</p></th>

<th><p>Send Request</p></th>

<th><p>View Request</p></th>

<th><p>Campus</p></th>

<th><p>login</p></th>

<th><p>About</p></th>

</tr>

</table>

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<th><p>

WELCOME</p>

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<p>Blood is universally recognized as the most precious element that sustains life.

A blood donation occurs when a person voluntarily has blood drawn and used for transfusions and/or made into biopharmaceutical medications by a process called fractionation (separation of whole-blood components).

Donation may be of whole blood, or of specific components directly (the latter called apheresis).

Blood banks often participate in the collection process as well as the procedures that follow it.</p></th>

</table>

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<th><img src="https://encrypted-tbn0.gstatic.com/images?q=tbn%3AANd9GcRtmiGa2tv2cW3jbxQ83ZL2mkJza-B0DiKeknRBfUvRKXK

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yjlR8"></th>

</table>

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Request For Blood

Name: [   ]

Gender [   ]

Age [   ]

Mobile No [   ]

Select Blood Group [o+ ▾] [Submit]

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DONOR REGISTRATION

Donor Name:

Gender:

Age:

Mobile No:

E-mail:

Password

Confirm Password

Register

Already a member ? Go and log in

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View Requests

Blood Group	Name	Gender	contact No	E-mail	Till Required Date
O+	Johny	male	7893681774	johny123@gmail.com	19-02-2020
AB+	aravind	male	9864538564	aravind@gmail.com	1-03-2020
B+	priya	female	8564067584	priya@gmail.com	06-04-2020
A-	archana	female	7896095534	archana@gmail.com	15-03-2020
o+	Johny	male	7893681774	johny123@gmail.com	22-03-2020
O-	hema	female	9664694635	hema@gmail.com	27-03-2020
AB+	ayaan	male	7845365647	ayaan@gmail.com	09-04-2020

Give blood

DONOR Log in

E-mail

Password

Login

USEFULNESS TO THE SOCIETY:

CONCLUSION:

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In this project we tried to implement the centarlized blood bank management system.this project has many advantages to the society.as everything is centralised we can combine many objectives to perform effective analysis.effective analysis of data can help a lot in medical field as many other objects and fields can be added to this system for the differnt blood groups.

REFERENCES:

en.wikipedia.org

www.google.com

 www.about.com System Analysis and Design Method, Publisher McHill