

PROFESSIONAL TRAINING REPORT
at
Sathyabama Institute of Science and Technology
(Deemed to be University)

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Technology in Information Technology

By

SANTHOSH KUMAR M
REG. NO. 38120075



DEPARTMENT OF INFORMATION TECHNOLOGY

SCHOOL OF COMPUTING

SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY
JEPPIAAR NAGAR, RAJIV GANDHI SALAI,
CHENNAI – 600119, TAMILNADU

NOVEMBER 2021



SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Accredited with Grade "A" by NAAC
(Established under Section 3 of UGC Act, 1956)
JEPPIAAR NAGAR, RAJIV GANDHI SALAI
CHENNAI- 600119
www.sathyabama.ac.in



DEPARTMENT OF INFORMATION TECHNOLOGY

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of SANTHOSH KUMAR M (**Reg. No: 38120075**) who carried out the project entitled "**BLOOD BANK SYSTEM**" under my supervision from June 2021 to November 2021.

Internal Guide

Dr. S. Revathy M.E., Ph.D.,

Head of the Department

Dr. R. Subhashini M.E., Ph.D.,

Submitted for Viva voce Examination held on _____

Internal Examiner

External Examiner

DECLARATION

I, **SANTHOSH KUMAR M** hereby declare that the project report entitled **BLOOD BANK SYSTEM** done by me under the guidance of **Dr. S. Revathy Ph.D.**, is submitted in partial fulfillment of the requirements for the award of Bachelor of Engineering Degree in Information Technology.

DATE: 13 / 11 / 2021

PLACE: Chennai

SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to **Board of Management of SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey my thanks to **Dr. T. Sasikala M.E., Ph.D, Dean**, School of Computing, **Dr.R.Subhashini, M.E., Ph.D. Head of the Department of Information Technology** for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Project Guide **Dr.S.Revathy M.E., Ph.D.**, for her valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express my thanks to all Teaching and Non-teaching staff members of the **Department of Information Technology** who were helpful in many ways for the completion of the project.

ABSTRACT

The purpose of this study was to develop a blood management information system to assist in the management of blood donor records and ease/o control the distribution of blood in various parts of the country basing on the hospital demands. Without quick and timely access to donor records creating market strategies for blood donation, lobbying and sensitization of blood donors becomes very di cult. The blood management information system functionalities to quick access to donor records collected from various parts of the country. It enables monitoring of the results and performance of the blood donation activity such that relevant and measurable objectives of the organization can be checked. It provide to management timely, con denial and secure medical reports that facilitates planning and decision making and hence improved medical service delivery. The reports generated by the system give answers to most of the challenges management faces as fares blood donor records are concerned.

The proposed of Blood Bank App helps the people who are in need of a blood by giving them all details of blood group availability or regarding the donors with the same blood group. They don't need to go anywhere to search the blood when they need. They just need to use this software then al the result will appear in just a second. Our life is so busy so we don't have time to spend going here and there, we can use technical way to search the blood by using the Blood Bank software we can nd thousands of people who are donating the blood and also get the detail the of that person that in which city he belongs to and what is the Blood group of that person. So this is the most useful software ever.

TRAINING CERTIFICATE



TABLE OF CONTENTS

CHAPTER No.	TITLE	PAGE No
	ABSTRACT	v
	LIST OF FIGURES	vii
	LIST OF ABBREVIATIONS	vii
1	INTRODUCTION	1
	1.1 Background Study	1
2.	AIM AND SCOPE OF THE PRESENT INVESTIGATION	2
	2.1 Scope	2
	2.2 Existing System	2
	2.3 Proposed System	3
	2.4 Technical Feasibility	3
	2.5 Significance of Problem	4
	2.6 Literature Studies	4
3.	SOFTWARE REQUIRMENTS SPECIFICATION	5
	3.1 Hardware Requirements	5
	3.2 Software Requirements	6
4.	Design and Planning	6
	4.1 General Overview	6
	4.2 DFD Diagram	7
5	Implementation Details	18-13
	5.1 Front End	
	5.1.1 Angular JS	
	5.1.2 HTML	
	5.1.3 CSS	
	5.1.4 Bootstrap	
	5.2 Back End	
	5.2.1 Express JS	
	5.2.1 JSON API	
6	Summary, Conclusion, Recommendation	13

REFERENCES	14
APPENDIX (Result and Discussions)	15
A. SCREENSHOTS	16
B. SOURCE CODE	23

LIST OF FIGURES

FIGURE NO.	FIGURE NAME	PAGE NO.
1.	General Overview	6
2.	DFD Diagram	7
3.	Home	16
4.	About page	17
5.	Admin Login	18-20
6.	Donor Registration	21
7.	Blood management	22
8.	contact Page	22
9.	Back-End	23

LIST OF ABBREVIATIONS

ABBREVIATION	EXPANSION
HTML	Hyper Text Markup Language
CSS	Cascading Style Sheet
JS	Java Script
DB	Data Base.

CHAPTER 1 : INTRODUCTION

The software system is an online blood bank management system that helps in managing various blood bank operations effectively. The project consists of a central repository containing various blood deposits available along with associated details. These details include blood type, storage area and date of storage. These details help in maintaining and monitoring the blood deposits. The project is an online system that allows to check whether required blood deposits of a particular group are available in the blood bank. Moreover, the system also has added features such as patient name and contacts, blood booking and even need for certain blood group is posted on the website to find available donors for a blood emergency. This online system is developed on .net platform and supported by an Sql database to store blood and user specific details.

1.1 BACKGROUND OF THE STUDY

For hospitals, a blood bank known as blood collection center, also is an area in which collected blood bags are stored and preserved for future use in blood transfusion services. Blood transfusion is a medical operation where a patient requires blood or blood products as a life saving measure. . In an article¹ published in Times of Oman in 2014, it was reported by Ministry of Health (MoH) that the total amount of blood donated annually in Muscat is approximately 25,084 units. MoH further reported that its Department of Blood Services is functioning at full capacity to meet the demands in the Sultanate.

Most blood banks are still running manual system in its processes. As such, there is a lack of efficiency because it is still paper-based in collecting information about donors, inventories of blood bags, and blood transfusion services. The lack of proper documentation may endanger patients' health due to the possibility of having contaminated blood bags. Contamination happened when there is an incomplete donors' medical history record and the blood bags' shelf life is not monitored properly. Hence, a web-based blood bank management system might be needed to address these issues and problems encountered to ensure blood transfusion safety.

CHAPTER 2 : AIM

The main aim of developing this software is to provide blood to the people who are in need of blood. The numbers of persons who are in need of blood are increasing in large number day by day. Using this system user can search the blood group available in the city and he can also get contact number of the donor who has the same blood group. In order to help people who are in need of blood, this Online Blood Bank software can be used effectively for getting the details of available blood groups and user can also get contact number of the blood donors having the same blood group and within the same city.

2.1 SCOPE:

This research study covers the three (3) basic operations of blood banks, namely: donor registration, monitoring of blood bags or products' inventories, and monitoring of blood bags or products' issuance. Also, due to time-constraint, respondents will be from hospitals from North Batinah Region in the Oman, though the research study talks about blood banks in the Sultanate of Oman. In addition, the study considers three (3) possible users of the system, namely: hospital administrator, doctors, and blood receptionists.

2.2 EXISTING SYSTEM

There are a quite good number of software packages that exist for BLOOD BANK Inventory control. But when I visited blood bank of Karnataka cancer hospital in Navanagar. I found that existing system is limited only to those particular blood bank. At the present there is no software to keep any records in blood bank. It becomes difficult to provide any record immediately at times of emergency. Required more human efforts in

maintaining the branch related information. Manually to keep the accounts is also tedious & risky job & to maintain those accounts in ledgers for a long period is also very difficult. Difficult to manage and maintain the files. Chance of damage of files, if the data is stored in the files for duration of time. Privacy is difficult. Time consuming is reserving, storing and updating the data. It is difficult to keep track the record about the donor & receiver he has donated or received the blood at the last time.

2.3 PROPOSED SYSTEM

The proposed system (Blood Bank Management System) is designed to help the Blood Bank administrator to meet the demand of Blood by sending and/or serving the request for Blood as and when required. The proposed system gives the procedural approach of how to bridge the gap between Recipient, Donor, and Blood Banks. This Application will provide a common ground for all the three parties (i.e., Recipient, Donor, and Blood Banks) and will ensure the fulfillment of demand for Blood requested by Recipient and/or Blood Bank. The features of proposed system are ease of data entry, system should provide user friendly interfaces, no need to maintain any manual register and form, immediate data retrieval and so on. The new system covers all the aspects of the existing system as well as enhanced features for the existing system for e.g., Bill provision etc.

2.4 TECHNICAL FEASIBILITY

This involves questions such as whether the technology needed for the system exists, how difficult it will be to build, and whether the firm has enough experience using that technology. The assessment is based on outline design of system requirements in terms of input, processes, output, fields, programs and procedures. This can be qualified in terms of volume of data, trends, frequency of updating in order to give an introduction to the technical system. The application is the fact that it has been developed on windows

XP platform and a high configuration of 1GB RAM on Intel Pentium Dual core processor. This is technically feasible.

2.5 SIGNIFICANCE OF THE PROBLEM

The findings of this study will benefit blood banks in managing blood donation donors, activities, and blood bags. This will allow the hospital to take decision if a particular type of blood is needed and currently unavailable in the hospital, however, available in another nearby hospitals. Furthermore, managing the blood bags in the blood bank will be much easier because each blood bag has an information about the donor, donation activity details, and the expiration date. Also, doctor can use this system to serve blood bags to their patient and monitor the details of the donor.

The main advantages of the system are:

- Blood bank staff can find and manage the donor details on the system easily.
- The expiration date of blood bags can be viewed in the system.
- Hospital can be alerted about issued blood bags and its availability.
- The system is systematized, and organized in managing blood donor records and blood donation activities.

2.6 LITERATURE STUDIES

According to ²**Teena, C.A, Sankar, K. and Kannan, S.** (2014) in their study entitled **“A Study on Blood Bank Management”**, they defined Blood Bank Information System as an information management system that contributes to the management of donor records and blood bank. Their system allowed an authorized blood bank administrator to sign in with a password to manage easily the records of donors and patients who need blood. The system provided many features including the central database, quick access to the system content through the login, includes the search code to find donors on a given basis, and the ease of adding and updating donor data. The main aim of the system was to complete the process of the blood bank. This system was designed to suit all types of blood banks. Once successful in the implementation of the application, it can be applied and rolled out in several blood banks. This application contains User Login Screen, Blood Management, Menu Form, Blood Stock, Donor Management, Donor Registration, Blood Reservation, Donor Blood Test,

Recipient Management and Blood Reservation. In similar manner, the researchers planned in their application to have hospital administrator, doctors, and blood bank receptionists as users. The authors did not mentioned the research method they used, and failed to provide screenshots of the system prototypes, making difficult for the researchers to visualize their application. No discussion also for their respondents, samples and sampling techniques used. Subsequently, the researchers planned to provide figures to explain the system, screenshots of system prototypes, and other diagrams that can help other researchers to visualize the development of web-based blood bank management system. Also, the researchers will explicitly discuss its research methods, sampling procedures, and statistical treatment to be used for analyzing the gathered data.

CHAPTER : 3 .SOFTWARE REQUIREMENTS SPECIFICATION

3.1 HARDWARE REQUIREMENTS

Number	Description
1	PC with 250 GB or more Hard disk.
2	PC with 2 GB RAM.
3	PC with Pentium 1 and above.

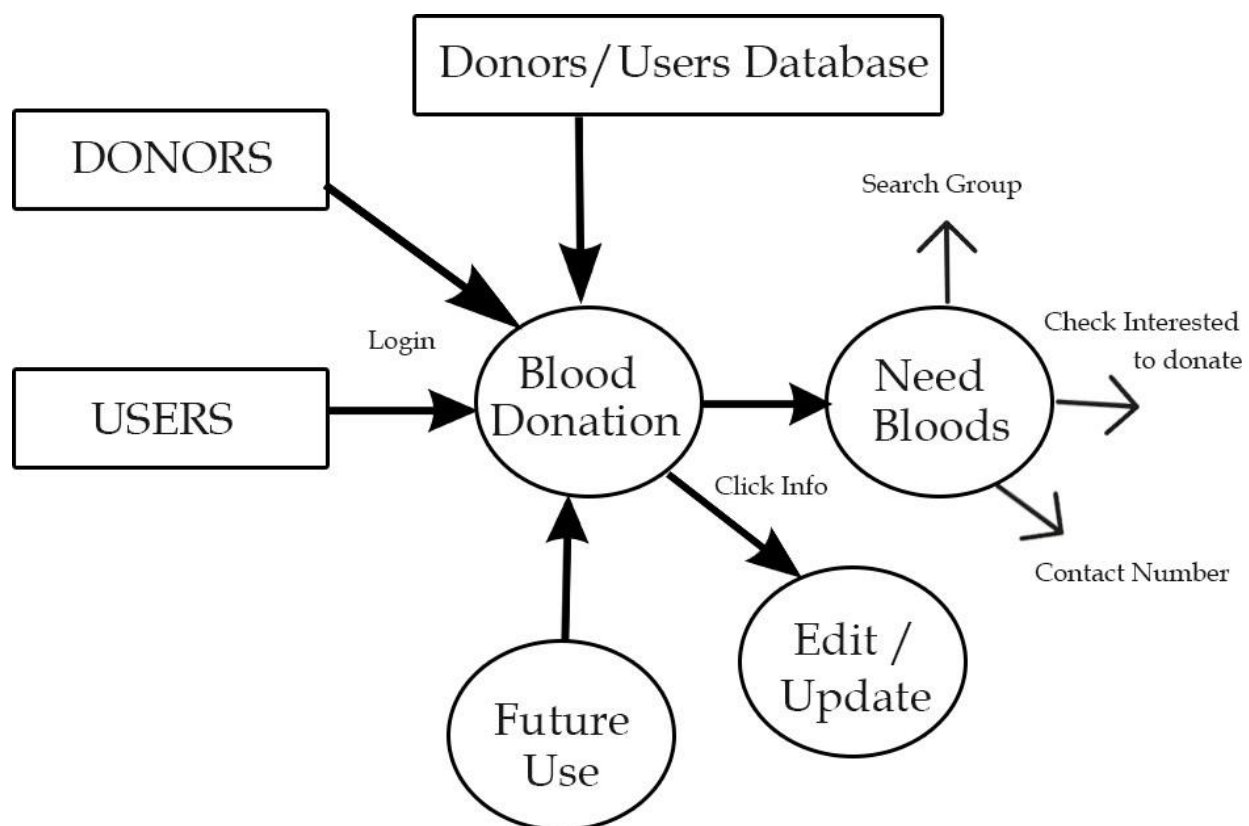
3.2 SOFTWARE REQUIREMENTS

Number	Description	Type
---------------	--------------------	-------------

1	Operating System	Windows XP / Windows
2	Language	AngularJs
3	Database	MangoDB
4	IDE	Visual Code
5	Browser	Google Chrome

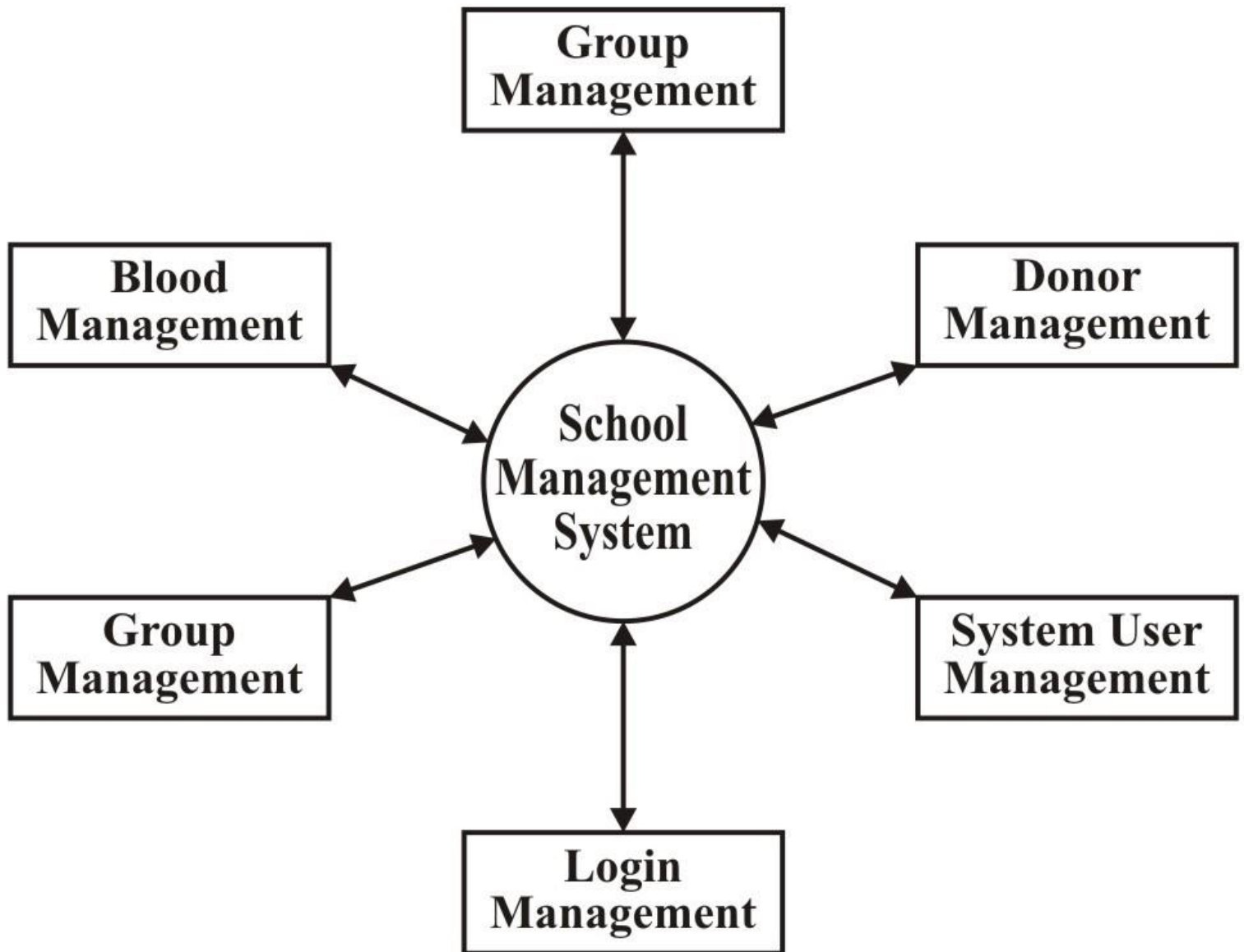
4. GENERAL OVERVIEW:

FIG : 1



DFD DIAGRAM

FIG : 2



Zero Level DFD - Blood Bank Management System

CHAPTER 5 : IMPLEMENTATION DETAILS

In this Section we will do Analysis of Technologies to use for implementing the project.

5.1: FRONT END

5.1.1 AngularJs



AngularJS is a JavaScript-based open-source front-end web framework mainly maintained by Google and by a community of individuals and corporations to address many of the challenges encountered in developing single-page applications. It aims to simplify both the development and the testing of such applications by providing a framework for client-side model–view–controller (MVC) and model–view–viewmodel (MVVM) architectures, along with components commonly used in rich Internet applications. AngularJS is the frontend part of the MEAN stack, consisting of MongoDB database, Express.js web application server framework, Angular.js itself, and Node.js server runtime environment.

The AngularJS framework works by first reading the Hypertext Markup Language (HTML) page, which has additional custom HTML attributes embedded into it. Angular interprets those attributes as directives to bind input or output parts of the page to a model that is represented by standard JavaScript variables. The values of those JavaScript variables can be manually set within the code, or retrieved from static or dynamic JSON resources. AngularJS is built on the belief that declarative programming should be used to create user interfaces and connect software components, while imperative programming is better suited to defining an application's business logic.

5.1.2 HTML

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as `<img />` and `<input />` directly introduce content into the page. Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

5.1.3 Css



Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

CSS information can be provided from various sources. These sources can be the web browser, the user and the author. The information from the author can be further classified into inline, media type, importance, selector specificity, rule order, inheritance and property definition. CSS style information can be in a separate document or it can be embedded into an HTML document. Multiple style sheets can be imported. Different styles can be applied depending on the output device being used; for example, the screen version can be quite different from the printed version, so that authors can tailor the presentation appropriately for each medium. The style sheet with the highest priority controls the content display. Declarations not set in the highest priority source are passed on to a source of lower priority, such as the user agent style. The process is called cascading.

One of the goals of CSS is to allow users greater control over presentation. Someone who finds red italic headings difficult to read may apply a different style sheet. Depending on the browser and the web site, a user may choose from various style sheets provided by the designers, or may remove all added styles and view the site using the browser's default styling, or may override just the red italic heading style without altering other attributes.

5.1.4 BOOTSTRAP



Bootstrap tutorial provides basic and advanced concepts of Bootstrap. Our Bootstrap tutorial is designed for beginners and professionals.

Bootstrap is the popular HTML, CSS and JavaScript framework for developing a responsive and mobile friendly website.

Our Bootstrap tutorial includes all topics of Bootstrap such as jumbotron, table, button, grid, form, image, alert, wells, container, carousel, panels, glyphicon, badges, labels, progress bar, pagination, pager, list group, dropdown, collapse, tabs, pills, navbar, inputs, modals, tooltip, popover and scrollspy.

5.1.5 MANGO DB :

MongoDB is a document-oriented NoSQL database used for high volume data storage. Instead of using tables and rows as in the traditional relational databases, MongoDB makes use of collections and documents. Documents consist of key-value pairs which are the basic unit of data in MongoDB. Collections contain sets of documents and function which is the equivalent of relational database tables. MongoDB is a database which came into light around the mid-2000s.

MongoDB Features

1. Each database contains collections which in turn contains documents. Each document can be different with a varying number of fields. The size and content of each document can be different from each other.
2. The document structure is more in line with how developers construct their classes and objects in their respective programming languages. Developers will often

say that their classes are not rows and columns but have a clear structure with key-value pairs.

3. The rows (or documents as called in MongoDB) doesn't need to have a schema defined beforehand. Instead, the fields can be created on the fly.
4. The data model available within MongoDB allows you to represent hierarchical relationships, to store arrays, and other more complex structures more easily.
5. Scalability – The MongoDB environments are very scalable. Companies across the world have defined clusters with some of them running 100+ nodes with around millions of documents within the database.

5.1.6 EXPRESS.JS

Express.js tutorial provides basic and advanced concepts of Express.js. Our Express.js tutorial is designed for beginners and professionals both.

Express.js is a web framework for Node.js. It is a fast, robust and asynchronous in nature.

Our Express.js tutorial includes all topics of Express.js such as Express.js installation on windows and linux, request object, response object, get method, post method, cookie management, scaffolding, file upload, template etc.

What is Express.js

Express is a fast, assertive, essential and moderate web framework of Node.js. You can assume express as a layer built on the top of the Node.js that helps manage a server and routes. It provides a robust set of features to develop web and mobile applications.

Let's see some of the core features of Express framework:

- It can be used to design single-page, multi-page and hybrid web applications.
- It allows to setup middlewares to respond to HTTP Requests.
- It defines a routing table which is used to perform different actions based on HTTP method and URL.
- It allows to dynamically render HTML Pages based on passing arguments to templates.

-
- Ultra-fast I/O

- Asynchronous and single threaded
- MVC like structure
- Robust API makes routing easy

5.1.7 JSON API:

The Cloud Storage JSON API is a simple, JSON-backed interface for accessing and manipulating Cloud Storage projects in a programmatic way. It is fully compatible with the Cloud Storage Client Libraries.

The JSON API is intended for software developers. To use it you should be familiar with web programming and be comfortable creating applications that consume web services through HTTP requests. If this does not describe you, consider one of the following alternatives:

- If you are just starting out with Cloud Storage, you should first try either the Cloud Console QuickStart or the gcloud CLI. These tutorials demonstrate the basics of using Cloud Storage without the need to use the API directly.
- If you are a mobile or web app developer, you can use the Firebase SDKs for Cloud Storage.
- If you are not a software developer and want to store your personal data in the cloud and share it with others, you can use Google Drive.

The current release of the JSON API is v1.

PROJECT IMPLEMENTATION :

- Home – represents the basic information of the website.
- About – explains about the hospital or institute.
- Admin Registration – Admin can add, delete, edit the user details and blood availability details.
- Donor Registration – donor can add their details about their the blood details etc.,.
- Blood management – user can access or refer about the blood availability details.
- Contact – User can access the phone numbers or email id details and contact details

CHAPTER 6: SUMMARY, CONCLUSIONS & RECOMMENDATIONS

SUMMARY

The researchers conducted this applied research to examine and evaluate on how online blood bank management system (OBBMS) can enhance blood transfusion safety. The researchers aimed to design, design, and implement this OBBMS. The researchers used both descriptive and experimental design methods. The researchers floated and administered questionnaire through online to hospital administrators, doctors, and blood bank receptionists from the various hospital in the North Al-Batinah Regions. Further, based on the gathered data, means, standard deviations, and t-value were computed. These computed values were analyzed and interpreted. Based on the findings and results, conclusions and recommendations were made.

CONCLUSION

Based on results, this study concluded that online blood bank management system is much better than the manual system. The findings showed that respondents prefer to use online blood bank management system rather than the manual system because it offers many advantages and benefits that lead to its effectiveness, and efficiency. Because of the increased confidence on the users on the system, it can be concluded that the online blood bank management system enhances blood transfusion safety because it provides better ways of handling the various processes in blood bank.

RECOMMENDATIONS

In view of the findings, the researchers recommend that implementation of online blood bank management system. Further, the researchers recommend that further studies on how online blood bank management system enhances blood transfusion safety can be undertaken to strengthen this study's findings. This requires actual implementation of the online system and evaluates how the users respond after implementation. This study recommends that it should be roll out across the Sultanate of Oman. Likewise, to ensure that there will be better user engagement, user manuals and proper user training should be given. Lastly, this study recommends that the system can be expanded by allowing donors to register online and be a system user.

REFERENCES:

1. Voluntary blood donations rising in Oman. (2014, November 21). Retrieved from <https://timesofoman.com/article/43536>
2. Teena, C.A, Sankar, K. and Kannan, S. (2014). *A Study on Blood Bank Management*. Retrieved from [https://www.idosi.org/mejsr/mejsr19\(8\)14/21.pdf](https://www.idosi.org/mejsr/mejsr19(8)14/21.pdf)
3. Kumar, R., Singh, S. and Ragavi, V.A. (2017).). *Blood Bank Management System*. Retrieved from http://ijariie.com/AdminUploadPdf/Blood_Bank_Management_System_ijariie6874.pdf
4. Liyana, F. (2017). *Blood Bank Management System Using Rule-Based Method*. Retrieved from <http://greenskill.net/suhailan/fyp/report/038077.pdf>

Web Sites:

www.google.com

www.msn.com

www.bloodzone.com

www.bloodbankservices.com

FUTURE ENHANCEMENT:

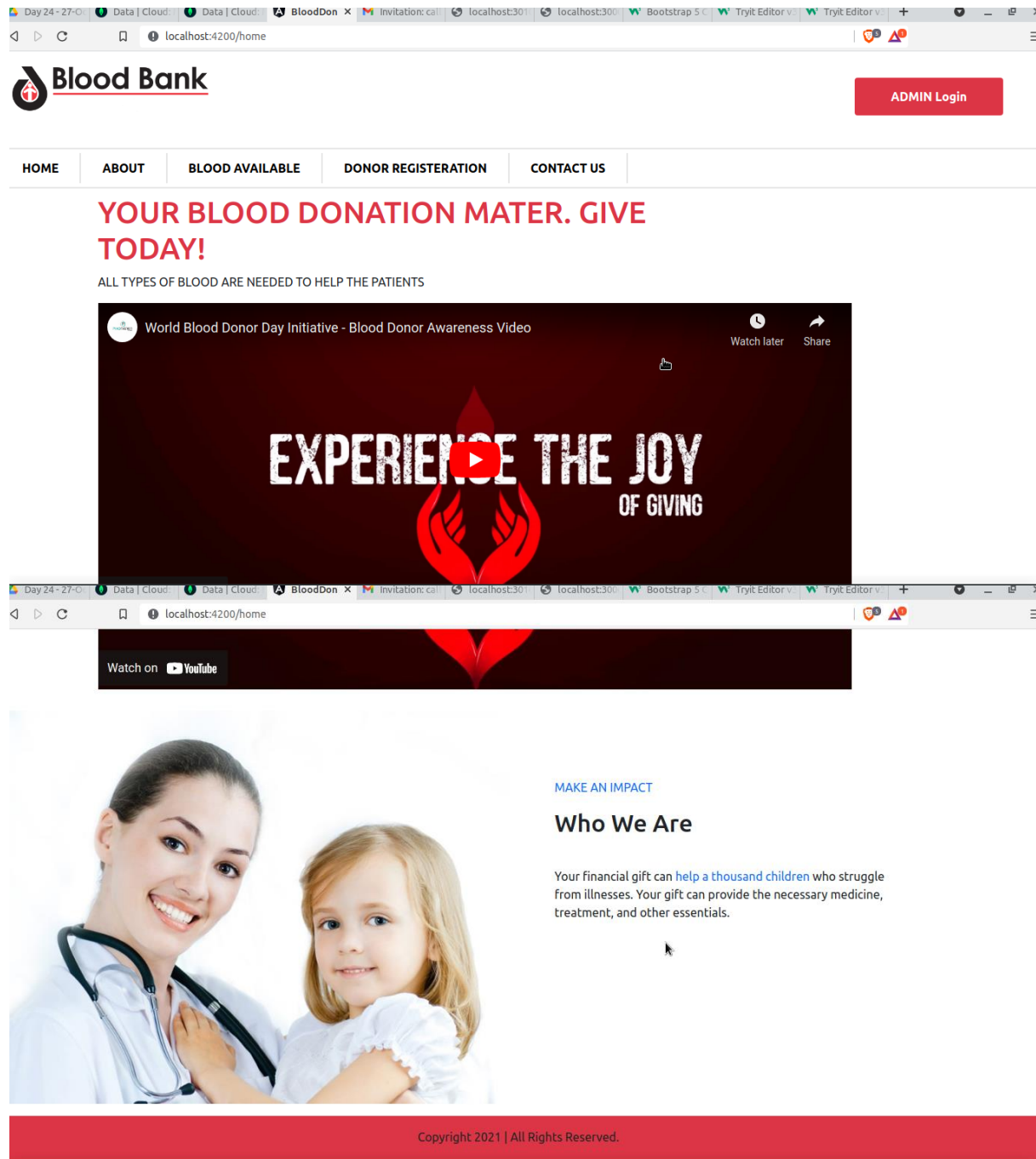
As there was a little number of contact person's information given, some people may face difficulty in getting blood fast. So i like to gather more information regarding the contact persons in other cities as well as villages and will provide much more services for the people and help everyone with humanity.

APPENDIX: RESULT AND DISCUSSION

Screenshots :

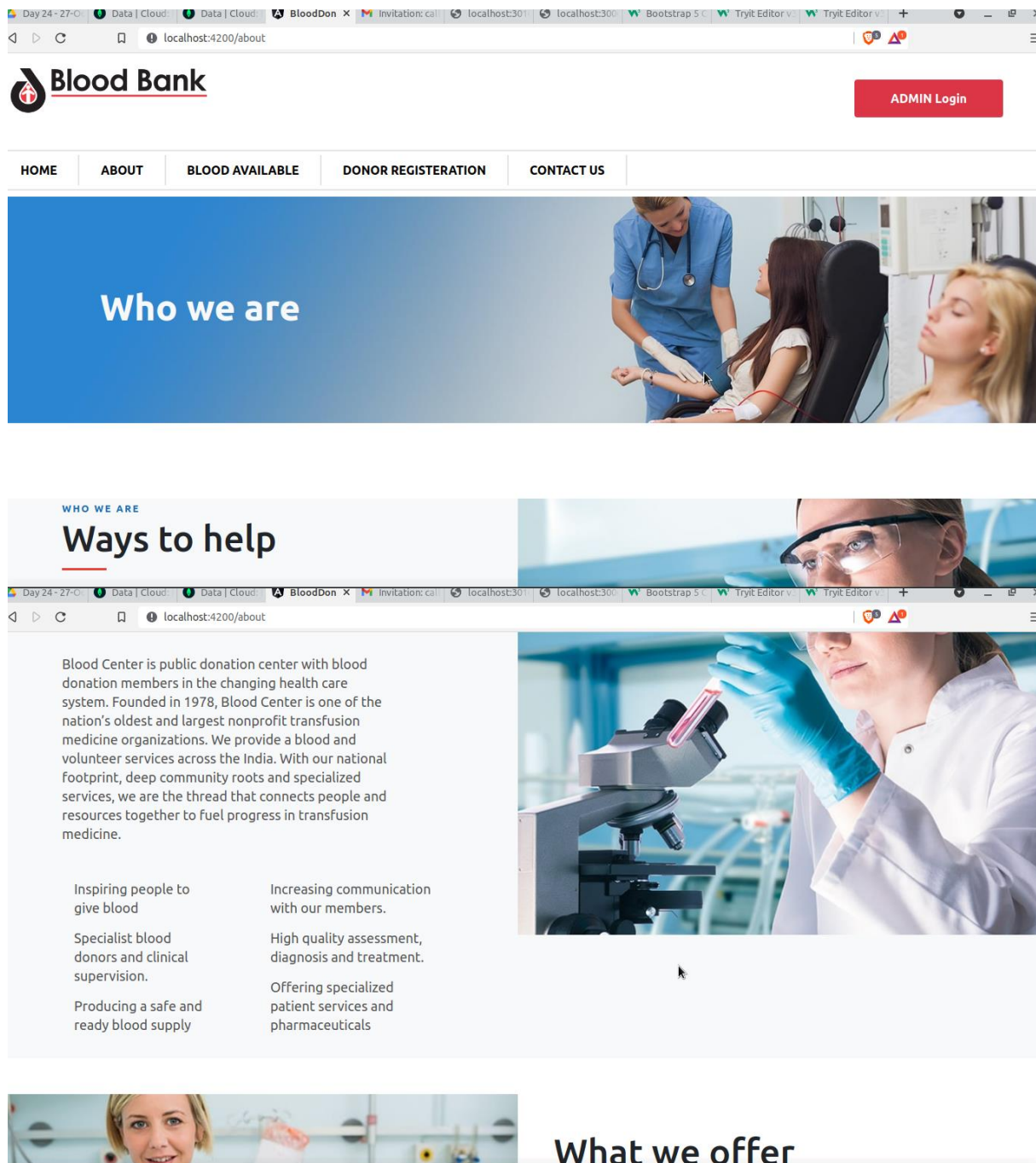
Home Page :

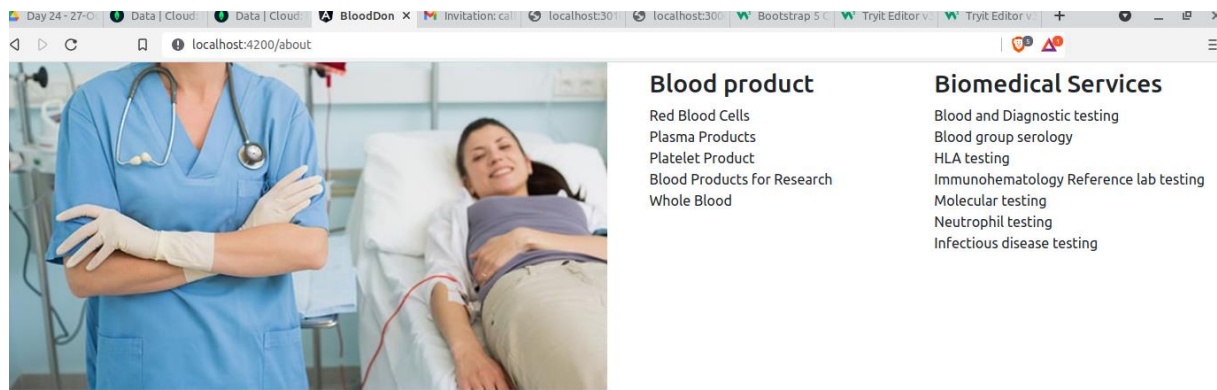
FIG:3



ABOUT PAGE :

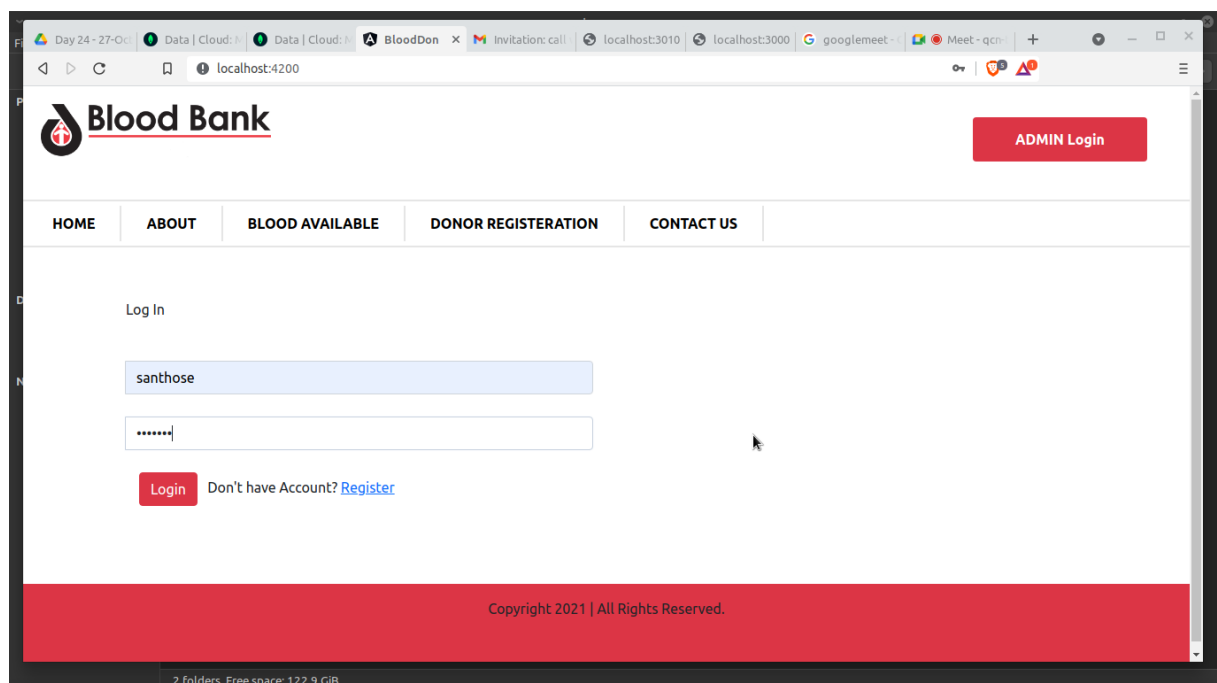
Fig.4





Admin Registration :

Fig.5





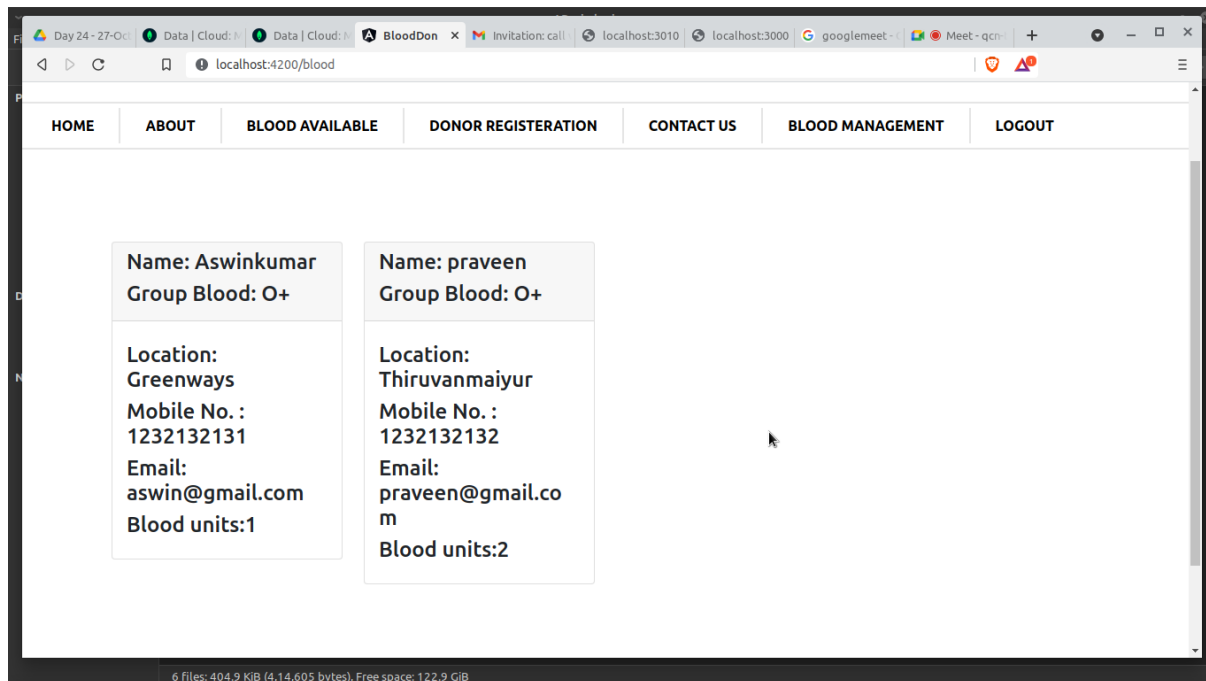


Fig.6

DONOR REGISTRATION PAGE:

Fig.7

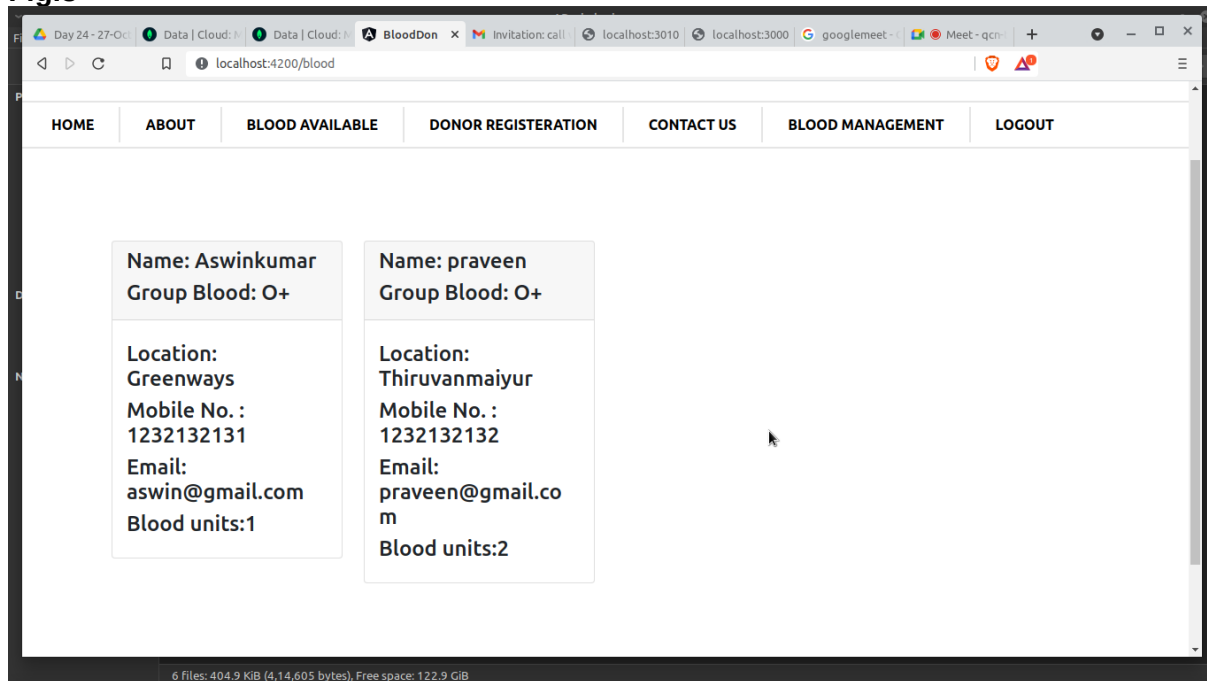
The screenshot shows the `localhost:4200/register` page titled "Donor Register". The form contains the following fields and controls:

- Name:** Text input field with placeholder "Username".
- Email Id:** Text input field with placeholder "Email".
- Gender:** Radio buttons for "Female" and "Male".
- Phone:** Text input field with placeholder "Phone Number".
- Blood Group:** Text input field with placeholder "Blood type".
- Blood Unit:** Text input field with placeholder "Unit of blood in liter".
- Location:** Text input field with placeholder "Location".
- Register:** A red button to submit the form.

The status bar at the bottom shows: Ln 5, Col 78 Spaces: 2 UTF-8 LF HTML.

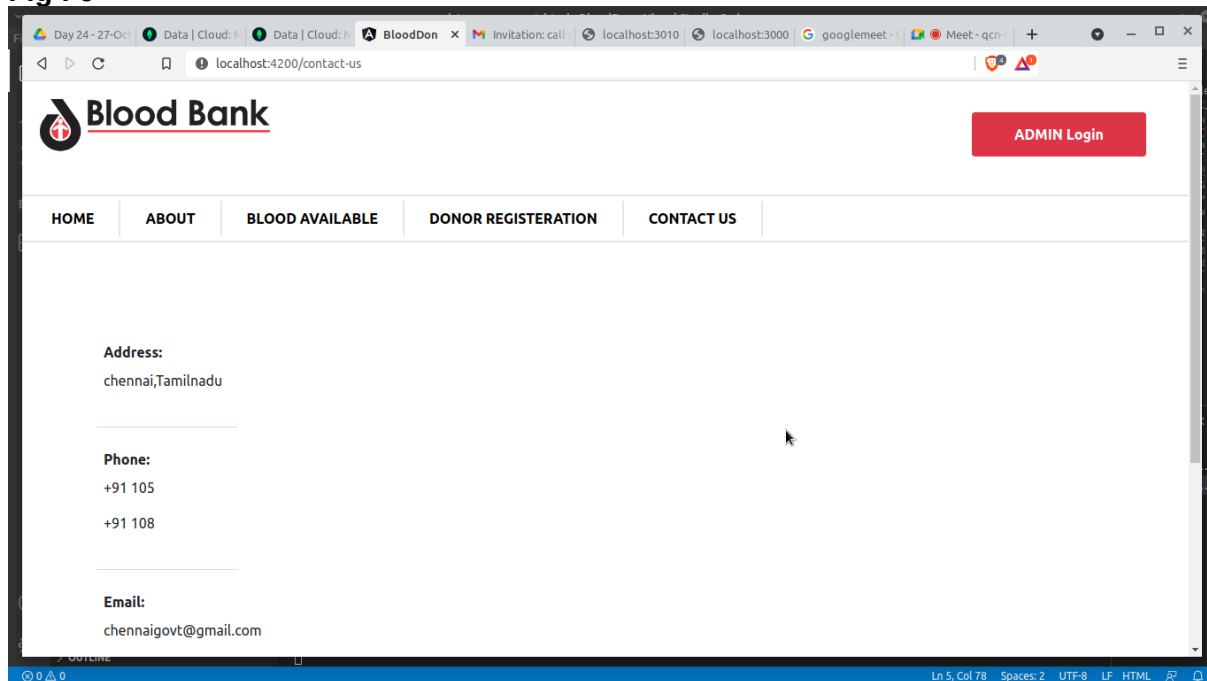
BLOOD AVAILABILITY PAGE :

Fig.8



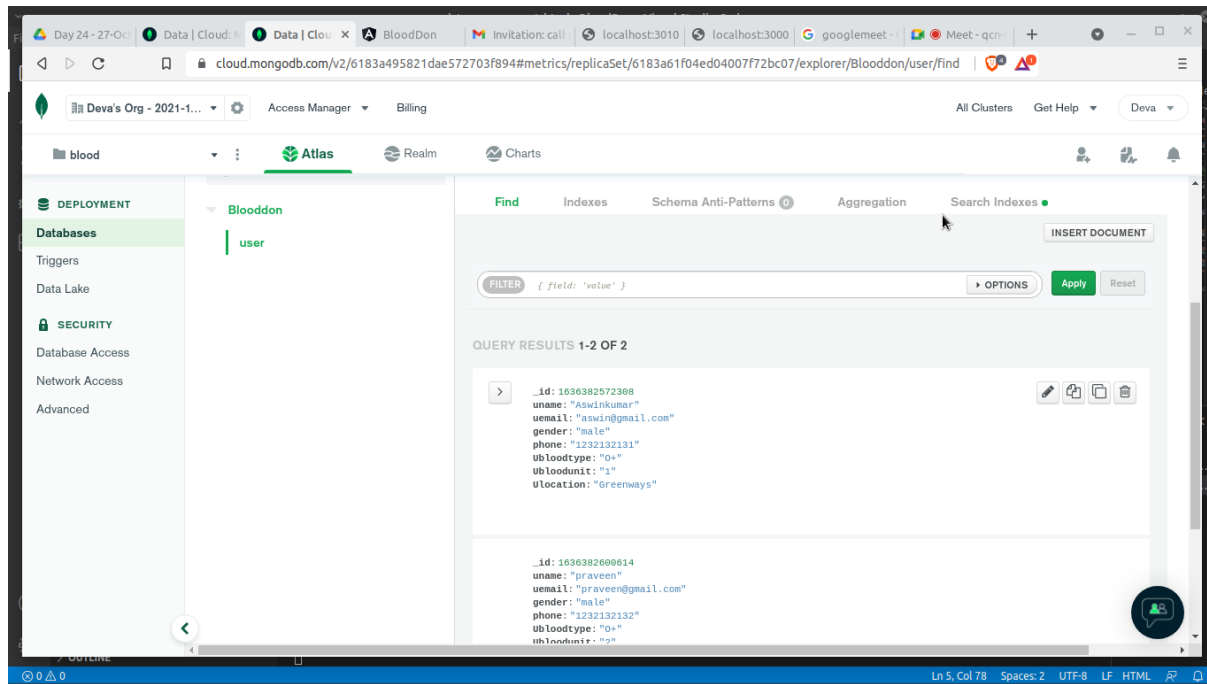
CONTACT US PAGE :

Fig : 9

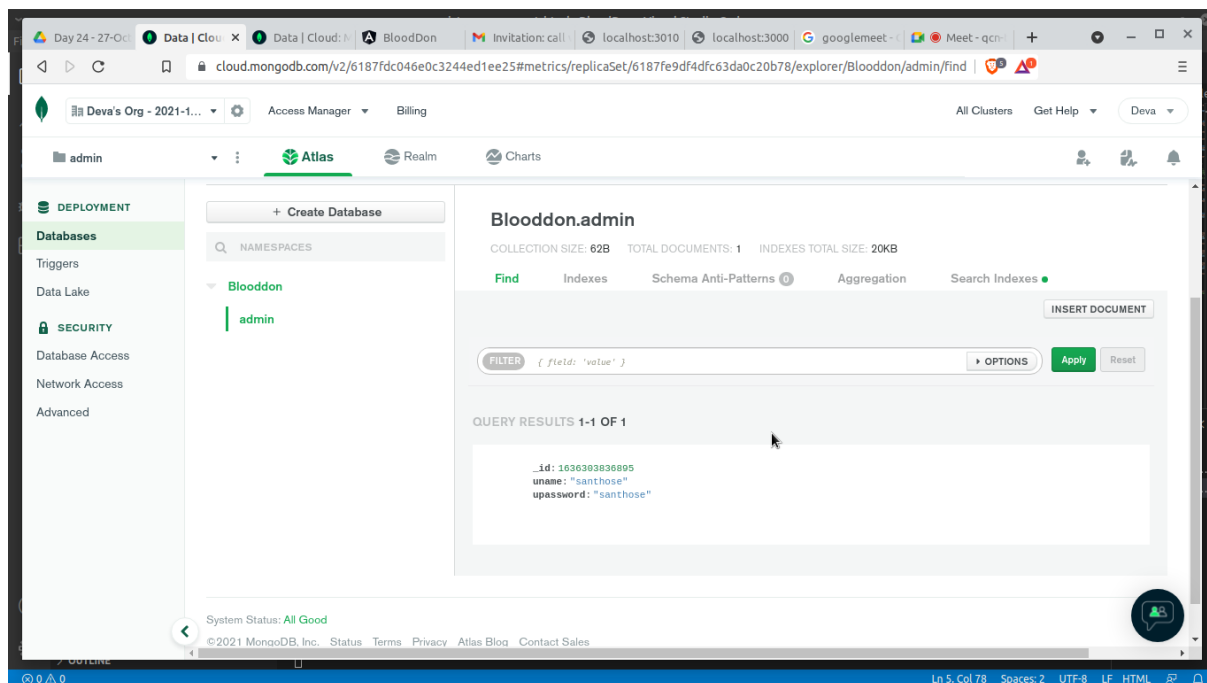


BACKEND DATABASE FIGURES :

USER LOGIN DATABASE: Fig.10



ADMIN LOGIN DATABASE: Fig.11



SOURCE CODE :

ABOUT :

```
<section class="about_banner d-flex align-items-center">
  <h2 class="text-light font-weight-bold">Who we are</h2>
</section>

<section class="help_way row bg-light">
  <div class="help_details col-md-6">
    <span class="text-uppercase">who we are</span>
    <h2 class="mb-5">Ways to help</h2>
    <p class="w-75 mb-5">
      Blood Center is public donation center with blood donation members in
the changing health care system. Founded in
      1978, Blood Center is one of the nation's oldest and largest nonprofit
transfusion medicine organizations. We
      provide a blood and volunteer services across the India. With our
national footprint, deep community roots and
      specialized services, we are the thread that connects people and
resources together to fuel progress in
      transfusion medicine.
    </p>
    <div class="help_list d-flex ml-3">
      <ul class="list-unstyled">
        <li>Inspiring people to give blood</li>
        <li>Specialist blood donors and clinical supervision.</li>
        <li>Producing a safe and ready blood supply</li>
      </ul>
      <ul class="list-unstyled">
        <li>Increasing communication with our members.</li>
        <li>High quality assessment, diagnosis and treatment.</li>
        <li>Offering specialized patient services and pharmaceuticals</li>
      </ul>
    </div>
  </div>
  <div class="help_img col-md-6"></div>
</section>

<section class="offer row h-100">
  <div class="offer_img col-md-6 my-5"></div>
  <div class="offer_details pl-5 my-5 py-5 col-md-6">
    <h2>What we offer</h2>
    <div class="offer_list d-flex py-4">
      <div class="w-50">
```

```

        <h3>Blood product</h3>
        <ul class="list-unstyled">
            <li>Red Blood Cells</li>
            <li>Plasma Products</li>
            <li>Platelet Product</li>
            <li>Blood Products for Research</li>
            <li>Whole Blood</li>
        </ul>
    </div>
    <div class="w-50">
        <h3>Biomedical Services</h3>
        <ul class="list-unstyled">
            <li>Blood and Diagnostic testing</li>
            <li>Blood group serology</li>
            <li>HLA testing</li>
            <li>Immunohematology Reference lab testing</li>
            <li>Molecular testing</li>
            <li>Neutrophil testing</li>
            <li>Infectious disease testing
        </li>
        </ul>
    </div>
</div>
</div>
</section>

<section class="call-us py-5">
    <div class="call-layout container py-5 text-white">
        <div class="row">
            <div class="col-8">
                <h2 class="my-3">Call us (+91) 108</h2>

            </div>
        </div>
    </div>
</section>

```

```

.about_banner{
    background: url("../assets/images/about_banner.jpg") center center;
    background-size: cover;
    background-repeat: no-repeat;
    height: 300px;
}

.about_banner h2{

```

```

    font-size: 3rem;
    margin-left: 10%
}

.help_way{
    margin-top: 100px;
}

.help_details{
    padding-left: 100px;
}

.help_img{
    background: url('../assets/images/section4.jpg');
    background-size: cover;
    background-repeat: no-repeat;
    background-position: center;
    height: 500px;
}

.help_details span{
    font-weight: 600;
    color: #196cb3;
    font-size: .8rem;
    line-height: 1.4;
    letter-spacing: 2px;
}

.help_details h2{
    font-size: 3rem;
    position: relative;
}

.help_details h2::after{
    content: '';
    position: absolute;
    bottom: -14px;
    left: 0;
    height: 3px;
    width: 10%;
    background: #ee3d32;
}

.help_details p{
    color: #555555;
    font-size: 18px;

```

```

    line-height: 1.4;
    letter-spacing: 0;
}

.help_list li{
    position: relative;
    margin-bottom: 15px ;
    width: 70%;
    color: #555555;
    font-size: 18px;
    line-height: 1.4;
    letter-spacing: 0;
}

.help_list li::before{
    content: "\f054";
    font-family: "Font Awesome 5 Free";
    font-weight: 900;
    position: absolute;
    left: -10%;
    top: 19%;
    color: #196cb3;
    font-size: 12px;
}

.offer_img{
    background: url('../assets/images/offer_img.jpg');
    background-size: cover;
    background-repeat: no-repeat;
    height: 500px;
}

.offer_details h2{
    font-size: 3rem;
}

.call-us {
    background-image: url("../assets/images/about-bg8.jpg");
    background-size: 100% 100%;
    background-position: center;
}

.call-us h2 {
    font-size: 2.5rem;
}

```

```

}

.call-us a {
  margin-left: 100px;
  font-size: 1.1rem;
}

```

```

import { ComponentFixture, TestBed } from '@angular/core/testing';

import { AboutComponent } from './about.component';

describe('AboutComponent', () => {
  let component: AboutComponent;
  let fixture: ComponentFixture<AboutComponent>;

  beforeEach(async () => {
    await TestBed.configureTestingModule({
      declarations: [ AboutComponent ]
    })
    .compileComponents();
  });

  beforeEach(() => {
    fixture = TestBed.createComponent(AboutComponent);
    component = fixture.componentInstance;
    fixture.detectChanges();
  });

  it('should create', () => {
    expect(component).toBeTruthy();
  });
});

import { Component, OnInit } from '@angular/core';

@Component({
  selector: 'app-about',
  templateUrl: './about.component.html',
  styleUrls: ['./about.component.css']
})
export class AboutComponent implements OnInit {

  constructor() { }

  ngOnInit(): void {
  }
}

```

```
}
```

BLOOD MANAGEMENT:

```
import { Component, OnInit } from '@angular/core';
import { UsersService } from '../users.service';

@Component({
  selector: 'app-bloodmanagement',
  templateUrl: './bloodmanagement.component.html',
  styleUrls: ['./bloodmanagement.component.css']
})
export class BloodmanagementComponent implements OnInit {

  users:any[]=[];
  msg:string;

  constructor(public userSer:UsersService) { }

  ngOnInit(): void {

    this.userSer.getAllUsers().subscribe((data:any[])=>{
      console.log(data);
      this.users = data;

    },(error:any)=>{

      console.log(error);
      this.msg="something went wrong";

    });
  }

  deleteUser(userId:number){

    if(confirm("Are you want to Delete this Record ?")){

      // console.log("User Delete with user id"+userId);

      this.userSer.deleteUserData(userId).subscribe((data:string)=>{

        this.msg=data;

        var index = this.users.findIndex((obj)=>{
```

```

        return obj._id == userId;
    });

    this.users.splice(index, 1)

}, (error: any) => {

    console.log(error);

    this.msg = "Something went wrong";

});

}

}

doSearch(search: string) {

    this.userSer.searchUsers(search).subscribe((data: any[]) => {

        console.log(data);

        this.users = data;

    }, (error: any) => {

        console.log(error);

    })

}

}

```

CONTACT :

```

<section id="contactUs">
    <div class="container-fluid layer p-5">
        <div class="row">

            <!--information-->
            <div class="col-md-4 p-5">

```

```

        <div class="p-2"><label class="font-weight-
bold">Address:&nbsp;</label><p> chennai,Tamilnadu</p></div>
        <hr class="w-50 bg-danger"/>
        <div class="p-2">
            <label class="font-weight-bold">Phone:&nbsp;</label><p>+91
105</p><p>+91 108</p>
        </div>
        <hr class="w-50 bg-danger"/>
        <div class="p-2"><label class="font-weight-
bold">Email:&nbsp;</label><p>chennaigovt@gmail.com</p></div>
        <hr class="w-50 bg-danger"/>
        <div class="p-2"><label class="font-weight-bold">Working
Hours:&nbsp;</label><p>Sunday - Friday: 9:00 am to 6:00 pm</p></div>
        </div>
        <!--contact form-->

    </div>
</div>
</section>

```

Home :

```

<section class="section1 d-flex align-items-center">
    <div class="container">
        <div class="row ">
            <div class="col-md-8 text-white caption">
                <h1 class=" text-uppercase text-danger">Your blood donation mater.
Give Today! </h1>
                <p class="text-uppercase text-dark"> All types of blood are needed
to help the patients </p>
                <iframe width="1000" height="415"
src="https://www.youtube.com/embed/-104jlEhsxU" title="YouTube video player"
frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-
media; gyroscope; picture-in-picture" allowfullscreen></iframe>

            </div>
        </div>
    </div>
</section>

<section class="py-3 section2">
    <div class="container-fluid">
        <div class="row">
            <div class="col-lg-6 col-sm-12">
                

```

```

        </div>
        <div class="col-lg-6 p-5 mt-5 col-sm-12 ">
            <p class="text-uppercase text-primary "> Make An Impact </p>
            <h2 class="font-weight-bolder position-relative w-50 "> Who We
Are</h2>
            <p class=" w-75 my-4 pt-3 "> Your financial gift can <span
class="text-primary ">help a thousand children
            </span> who struggle from illnesses.
            Your gift can provide the necessary medicine, treatment, and other
essentials. </p>

        </div>
    </div>

</div>
</section>

```

LOGIN :

```

<div class="container">
    <div style="margin-top:50px;" class="mainbox col-md-6 col-md-offset-3 col-
sm-8 col-sm-offset-2">
        <div class="panel panel-info" >
            <div class="panel-heading">
                <div class="panel-title">Log In</div>
            </div>
            <div style="padding-top:30px" class="panel-body" >
                <p>
                    {{msg}}
                </p>
                <form (submit)="doLogin(f)" #f="ngForm">

                    <div style="margin-bottom: 25px" class="input-group">
                        <span class="input-group-addon"><i
class="glyphicon glyphicon-user"></i></span>
                        <input type="text" class="form-control" name="uname" ngModel
placeholder="username">
                    </div>

                    <div style="margin-bottom: 25px" class="input-group">
                        <span class="input-group-addon"><i
class="glyphicon glyphicon-lock"></i></span>
                        <input type="password" class="form-control" name="upassword"
ngModel placeholder="password">
                    </div>
                </form>
            </div>
        </div>
    </div>
</div>

```


[illegible]

[illegible]

[illegible]

```
                <br>  <br><br>
            </div>
        </div>
</div>
</div>
```