

AVATHI ORGAN DONATION SYSTEM

A Report for the Evaluation 3 of Project 2

Submitted by

NIKHIL SHRIVASTVA (1613101444)

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Under the Supervision of Mrs. SUMAN DEVI, M.Tech., Assistant Professor

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ABSTRACT

The number of persons who are in need of organ and blood are increasing in large number day by day. In order to help people who are in need of organ and blood, AVATHI ORGAN DONATION SYSTEM can be used effectively for getting the details of organ donors having the same blood group and healthy medical condition, within the same city. With the help of AVATHI ORGAN DONATION SYSTEM people who are, having the thought of donating organ gets registered in AVATHI ORGAN DONATION SYSTEM giving his complete details.

AVATHI ORGAN DONATION SYSTEM is available to everyone easily. A person who likes to donate organ or blood gives his/her entire details i.e., fill in the registration form and can create a username with a password by which he/she can modify his/her details if there are any changes in his information given before.

AVATHI ORGAN DONATION SYSTEM also help's people who are in need of blood or organ by giving the details of the donors by searching, if at all there are no donors having the same group and within their own city they will be given the addresses with phone numbers of some contact person's in major cities who represent a club or an organization free of cost.

AVATHI ORGAN DONATION SYSTEM also helps the one who are in search of a particular organ or blood by simply getting registered here.

In this report, this paper discusses about the benefits of management of organ donation information system. Management database of organ donation information system plays an important role in the development of the project. In today's world of information most of the systems are transforming into the management information system. The paper is basically focussed on the organ donor database management information system. It discusses about the beneficiaries of the organ donor management information system. It plays a vital role in the blood bank as blood is the necessity of everyone and organ bank as organs which are required for transplantation.

KEYWORDS - Search, Upload, Area, Database Management System.

INTRODUCTION

PROJECT OVERVIEW

The number of persons who are in need of blood and organ are increasing in large number day by day. In order to help people who are in need of blood and organ, AVATHI ORGAN DONATION SYSTEM can be used effectively for getting the details of organ donors having the same blood group and healthy medical requirements, within the same city. With the help of AVATHI ORGAN DONATION SYSTEM people who are, having the thought of donating organ gets registered in AVATHI ORGAN DONATION SYSTEM giving his/her complete details.

AVATHI ORGAN DONATION SYSTEM is available to everyone easily. A person who likes to donate blood or organ gives his/her entire details i.e., fill in the registration form and can create a username with a password by which he/she can modify his/her details if at all there are any changes in his information given before. A person who is in need of organ or blood can also get registered on AVATHI ORGAN DONATION SYSTEM, if the person wants to get the information of donor at the earliest.

PROJECT DESCRIPTION

This project is aimed to develop an online Organ Donation Information System. The entire project has been developed keeping the distributed client server computing technology, in mind.

The Organ Donation Agent is to create an e-Information about the donor. Through this application any person who is interested in donating the blood can register himself/herself. Moreover, if any general consumer wants to make request for organ or blood online, he/she

can also take help of this site.

Admin is the main authority who can do addition, deletion, verification and modification, if required.

The number of persons who are in need of organ are increasing in large number day by day. In order to help people who are in need of organ and blood, AVATHI ORGAN DONATION SYSTEM can be used effectively for getting the details of organ donors having the same blood group and healthy medical requirements, within the same city. With the help of AVATHI ORGAN DONATION SYSTEM people who are, having the thought of donating organ gets registered in AVATHIORGAN DONATION SYSTEM giving his complete details.

AVATHI ORGAN DONATION SYSTEM is available to everyone easily. A person who likes to donate blood gives her/his entire details i.e., fill in the registration form and can create a username with a password by which she/he can modify her/his details if at all there are any changes in his information given before.

AVATHI ORGAN DONATION SYSTEM also help people who are in need of organ and blood by giving the details of the donors by searching, if at all there are no donors having the same group and within their own city they will be given the addresses with phone numbers of some contact person's in major cities who represent a club or an organization with free of cost. People who want blood or organ can also register themselves on ORGAN DONATION SYSTEM so as to get the donor easily. The present project elucidates the following features.

- •Registering the Donors/Recipient
- •Modification of Donor/Recipient Information

•Searching a Donor

•Life Saving Contacts (in major cities)

The project has been planned to be having the view of distributed architecture, with centralized storage of the database. The WEB application for the storage of the data has been planned. Using the constructs of MySQL Server and all the user interfaces have been designed using the JSP technologies.

The 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.

The entire project has been developed keeping in view of the distributed client server computing technology, in mind. The specification has been normalized up to 3NF to eliminate all the anomalies that may arise due to the database transaction that are executed by the general users and the organizational administration. The user interfaces are browser specific to give distributed accessibility for the overall system. The internal database has been selected as MySQL Server.

The basic constructs of table spaces, clusters and indexes have been exploited to provide higher consistency and reliability for the data storage. The MySQL server was a choice as it provides the constructs of high-level reliability and security. The total front end

was dominated using the JSP technologies. At all proper levels high care was taken to check that the system manages the data consistency with proper business rules or validations.

The database connectivity was planned using the latest "SQL Connection" technology provided by MySQL. The authentication and authorization were crosschecked at all the relevant stages.

System Analysis

Software Requirement Specification (SRS)

The software, Site Explorer is designed for management of web sites from a remote location.

INTRODUCTION

Purpose

The main purpose for preparing this document is to give a general insight into the analysis and requirements of the existing system or situation and for determining the operating characteristics of the system.

Scope

This Document plays a vital role in the development life cycle (SDLC) and it describes the complete requirement of the system. It is meant for use by the developers and will be the basic during testing phase. Any changes made to the requirements in the future will have to go through formal change approval process.

DEVELOPERS RESPONSIBILITIES OVERVIEW

The developer is responsible for:

- Developing the system, which meets the SRS and solving all the requirements of the system?
- Demonstrating the system and installing the system at client's location after the acceptance testing is successful.
- Submitting the required user manual describing the system interfaces to work on it and also the documents of the system.
- Conducting any user training that might be needed for using the system.

 Maintaining the system for a period of one year after installation.

Software Requirement Analysis

Problem Definition

Existing System

- Cannot Upload and Download the latest updates.
- No use of Web Services and Remoting.
- Risk of mismanagement and of data when the project is under development.
- Less Security.
- No proper coordination between different Applications and Users.
- Fewer Users Friendly

Disadvantages

User friendliness is provided in the application with various controls.

- 1. The system makes the overall project management much easier and flexible.
- 2. Readily upload the latest updates, allows user to download the alerts by clicking the URL.
- 3. There is no risk of data mismanagement at any level while the project development is under process.
- 4. It provides high level of security with different level of authentication.

Proposed System

To debug the existing system, remove procedures those cause data redundancy, make navigational sequence proper. To provide information about audits on different level and also to reflect the current work status depending on organization/auditor or date. To build strong password mechanism.

Advantages

- User friendliness I provided in the application with various controls.
- The system makes the overall project management much easier and flexible.
- Readily upload the latest updates allows user to download the alerts by clicking the URL.
- It provides high level of security with different level of authentication.

Feasibility Study

Preliminary investigation examines project feasibility, the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All system is feasible if they are unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility
- Operation Feasibility
- Economic Feasibility

Technical Feasibility

The technical issue usually raised during the feasibility stage of the investigation includes the following:

- Does the necessary technology exist to do what is suggested?
- Do the proposed equipment have the technical capacity to hold the data required to use the new system?
- Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?
- Can the system be upgraded if developed?
- Are there technical guarantees of accuracy, reliability, ease of access and data security?

Earlier no system existed to cater to the needs of 'Secure Infrastructure Implementation System'. The current system developed is technically feasible. It is a web-based user interface for audit workflow at NIC-CSD. Thus, it provides an easy access to the users.

The database's purpose is to create, establish and maintain a workflow among various entities in order to facilitate all concerned users in their various capacities or roles. Permission to the users would be granted based on the roles specified. Therefore, it provides the technical guarantee of accuracy, reliability and security.

The software and hard requirements for the development of this project are not many and are already available in-house at NIC or are available as free as open source. The work for the project is done with the current equipment and existing software technology. Necessary bandwidth exists for providing a fast feedback to the users irrespective of the number of users using the system.

Operational Feasibility

Proposed projects are beneficial only if they can be turned out into information system.

That will meet the organization's operating requirements. Operational feasibility aspects of the project are to be taken as an important part of the project implementation. Some of the important issues raised are to test the operational feasibility of a project includes the following

- Is there sufficient support for the management from the users?
- Will the system be used and work properly if it is being developed and implemented?
- Will there be any resistance from the user that will undermine the possible application benefits?

This system is targeted to be in accordance with the above-mentioned issues. Beforehand, the management issues and user requirements have been taken into consideration. So, there is no question of resistance from the users that can undermine the possible application benefits.

The well-planned design would ensure the optimal utilization of the computer resources and would help in the improvement of performance status.

Economic Feasibility

A system can be developed technically and that will be used if installed must still be a good investment for the organization. In the economic feasibility, the development cost in creating the system is evaluated against the ultimate benefit derived from the new systems. Financial benefits must equal or exceed the costs.

The system is economically feasible. It does not require any addition hardware or software. Since the interface for this system is developed using the existing resources and technologies available at NIC, there is nominal expenditure and economic feasibility for certain.

Define the Modules and their functionalities

The modules are involved

1. Administration

In this module the Administrator has the privileges to add all the Blood Groups, Organs, Country, State, City, and Location. He can search all the info about the Donor or Recipient.

User Account

- AccountID
- Username
- Password

- UserDesc
- RoleID
- Active

Functionality

- Association User Account with User Role.
- Association User Account with personal Details.
- Association User Account with Organ Donation Details.

2. DONOR

Donor is that person who is interested in donating their blood so they can register themselves through this website. If any requirement comes then they will be contacted and they can donate their organ or blood.

Along with it they can search for the various organization locations wise and can also make request for blood or organ if needed

In this module the Donor has the privileges to Login, upload their details of all the Blood Groups, Organs, Country, State, City, and Location.

User Account

AccountD

Username

Password

Functionality

- Association User Account with User Role.
- Association User Account with personal Details.
- Association User Account with Organ Donation Details.

3.Recipient

In this module the Donor has the privileges to Login, upload their details of all the Blood Groups, Country, State, City, and Location.

User Account

AccountID

Username

Password

Functionality

- Association User Account with User Role.
- Association User Account with personal Details.
- Association User Account with OrganDonation Details.

IMPLEMENTATION DIAGRAMS

Context Diagram

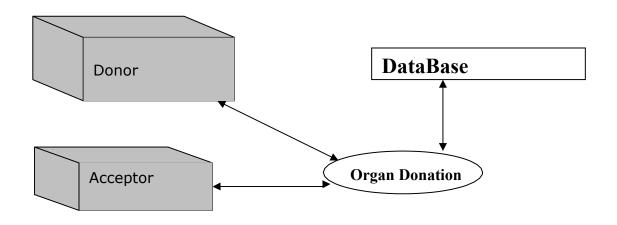
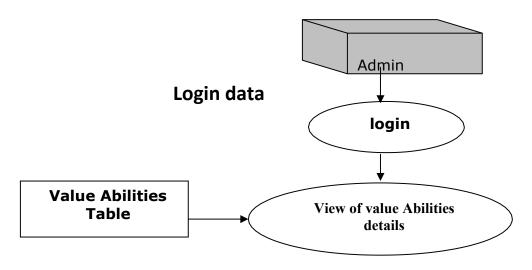


Figure 5.2 Context Diagram

1st Level DFD's

Level 1 DFD: For Admin Module



DFD For Donor Creation

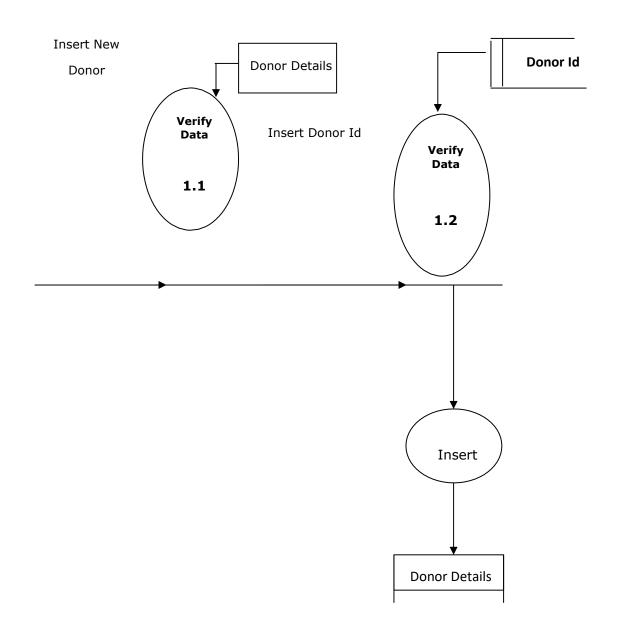
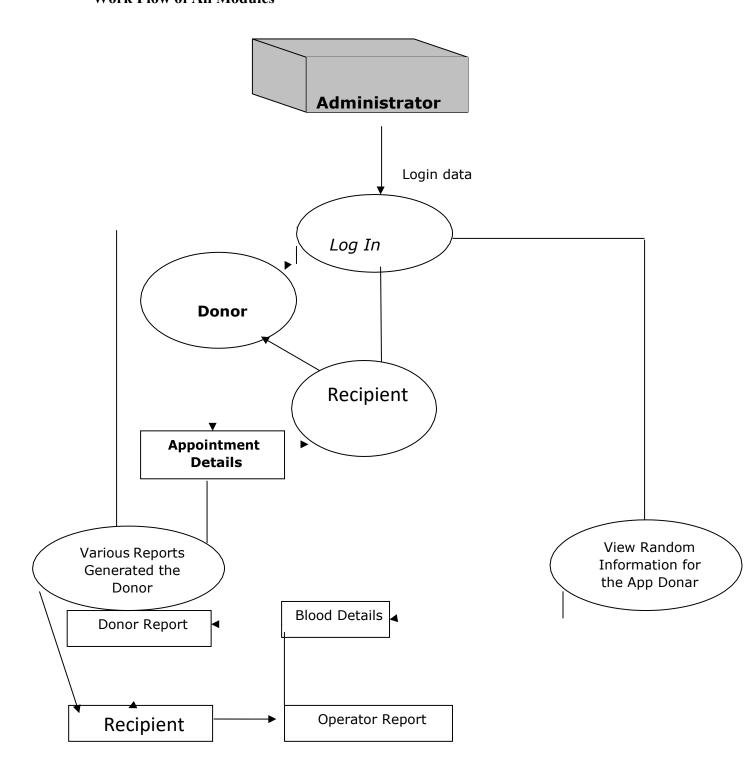


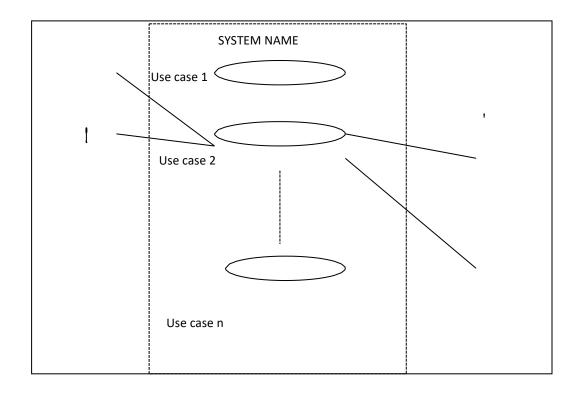
Figure 5.3 DFD For Donor Creation

Work Flow of All Modules



UML Diagrams

Use case Model



Use case name	Login
Participating	Admin, Donor, Recipient, Organization
actors	
Flow of events	The Actor will give the user name and password to the system. The system will
1 tow of events	verify the authentication.
	verify the authoritection.
Entry Condition	The actor will enter the system by using username and password

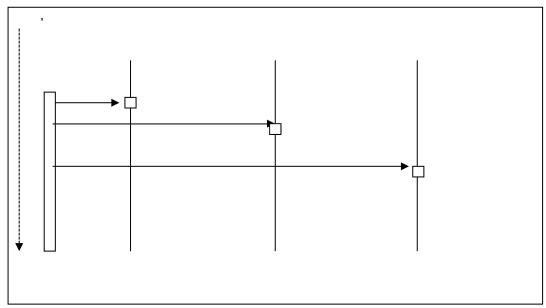
Exit condition	If un authenticated should be exited
Quality	Password must satisfy the complexity requirements.
Requirements	

Use case name	Admin Registration
Participating	Admin
actors	
Flow of events	The Admin will submit all the details and place in the application.
Entry Condition	Must satisfy all the norms given by the Blood Donation Agent interface site.
Exit condition	Successful or Un successful completion of creation of account.
Quality	All fields are mandatory.
Requirements	

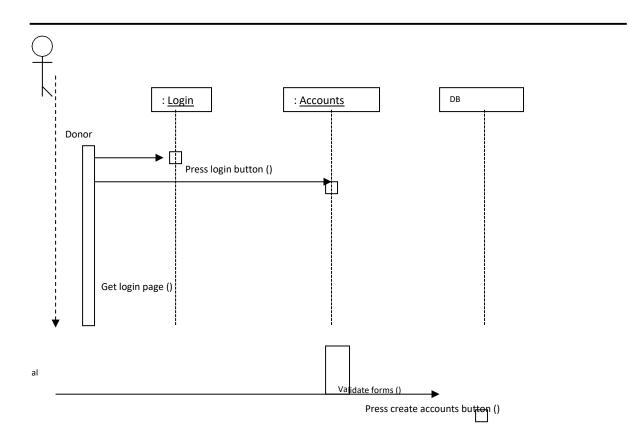
Use case name	Donor Registration
Participating	Donor
actors	
Flow of events	The Donor must enter all his personal details.
Entry Condition	View Home page
Exit condition	Registered Donor should be successfully logged out. Error Message should be
	displayed on Un successful creation.
Quality	Best Error Handling techniques. Check on Mandatory fields.
Requirements	

Use case name	Recipient Registration
Participating actors	Recipient
Flow of events	The Recipient must enter all his personal details.
Entry Condition	View Home page
Exit condition	Registered Recipient should be successfully logged out. Error Message should be displayed on Un successful creation.
Quality Requirements	Best Error Handling techniques. Check on Mandatory fields.

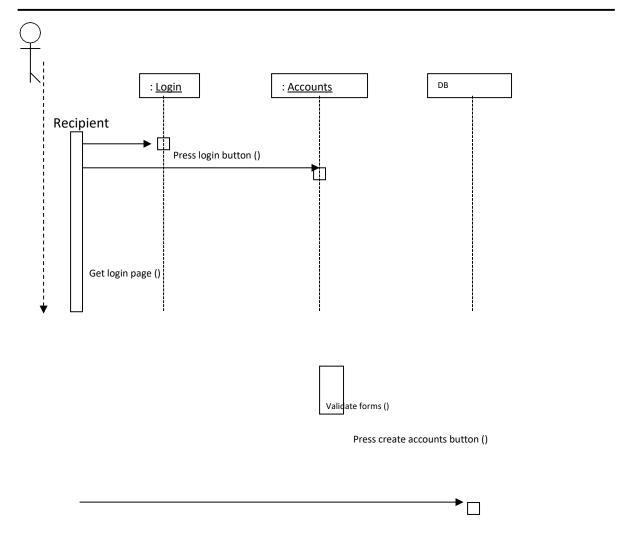
SEQUENCE DIAGRAMS



Sequence Diagram for Donor



Sequence Diagram for Recipient



ER diagram for Blood group and Personal details

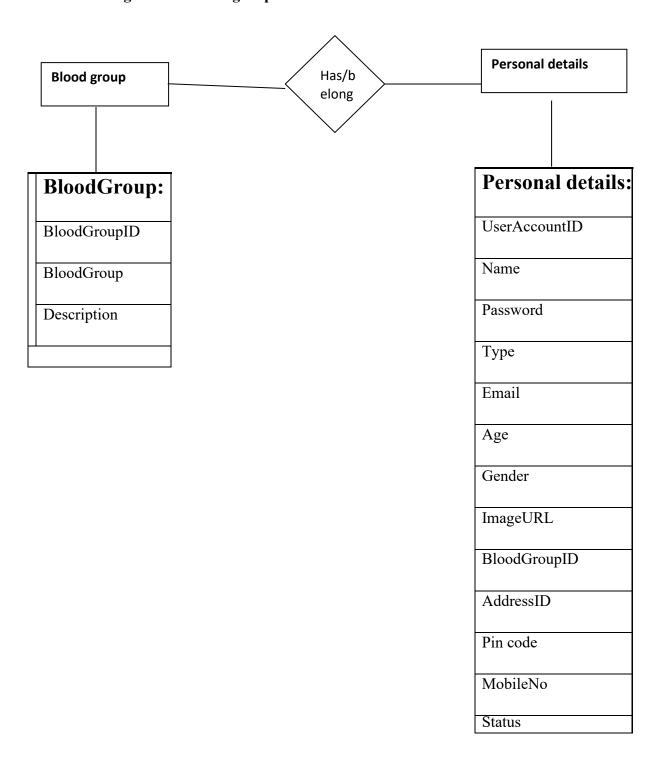


Table Used in Database

The user_info table

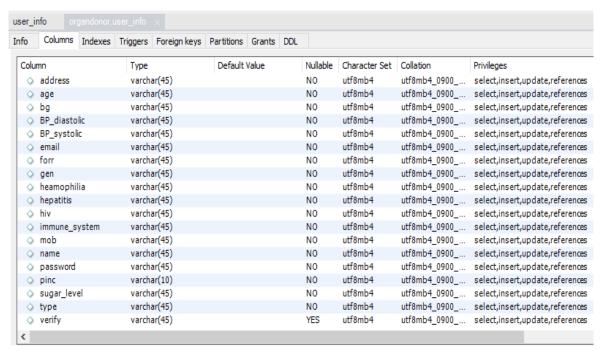


Figure User info table description

The admin info table

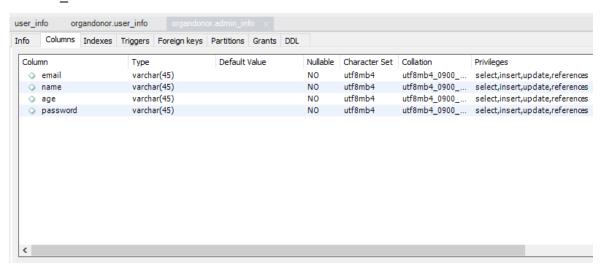


Figure Admin info

The user_info table sample

type	forr	email	name	age	gen	bg	BP_systolic	BP_diastolic	: hiv	hepatitis	sugar_level	heamop
RECIPIENT	blood	apurva@gmail.com	n apurva	21	FEMALE	0+	90-130	60-100	negative	negative	70-90	no
DONOR	liver	atulya@gmail.com	atulya	35	MALE	В-	90-130	60-100	negative	negative	above 90	no
RECIPIENT	kidney	harish@gmail.com	harish	40	MALE	B+	90-130	below 60	negative	negative	70-90	no
DONOR	KIDNEY	kapil@gmail.com	kapil	30	MALE	A-	90-130	60-100	NEGATIV	E NEGATIVE	Below 70	NO
DONOR	BLOOD	ravi@gmail.com	ravi	35	MALE	B+	90-130	60-100	NEGATIV	E NEGATIVE	70-90	NO
RECIPIENT	blood	sana@yahoo.com	sana	26	FEMALE	0-	90-130	above 100	negative	negative	70-90	no
DONOR	KIDNEY	sania@gmail.com	sania	16	FEMALE	0+	90-130	60-100	NEGATIV	E NEGATIVE	70-90	NO
DONOR	kidney	shaan@gmail.com	shaan	30	MALE	0+	above 130	60-100	negative	positive	70-90	no
RECIPIENT	KIDNEY	simran@gmail.com	simran	21	FEMALE	B+	90-130	60-100	NEGATIV	E NEGATIVE	70-90	NO
RECIPIENT	blood	soha@gmail.com	soha	29	FEMALE	A-	90-130	60-100	negative	negative	70-90	no
RECIPIENT	BLOOD	tina@gmail.com	tina	22	FEMALE	0+	90-130	60-100	NEGATIV	E NEGATIVE	70-90	NO
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Figure 6.3 User_info

IMPLEMENTAION IMAGES

Donor create an account and upload data







Figure 7.1 Donor create an account







Figure 7.2 Donor details

Recipient create an account and request for blood

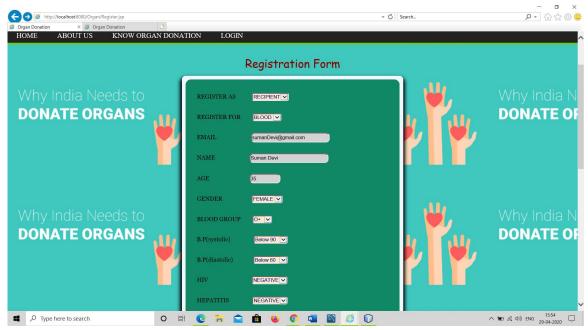


Figure 7.3 Recipient create an account



Figure 7.4 Recipient details

Admin login and proceed recipient request



Figure 7.5 Admin Login

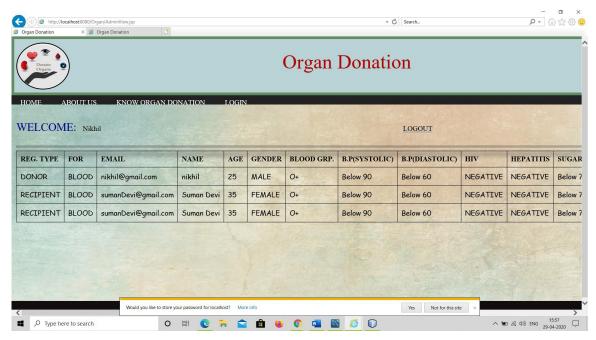


Figure 7.6 Donor and Recipient details

Output Screens

Home page



Figure 8.1 Home page

Login page



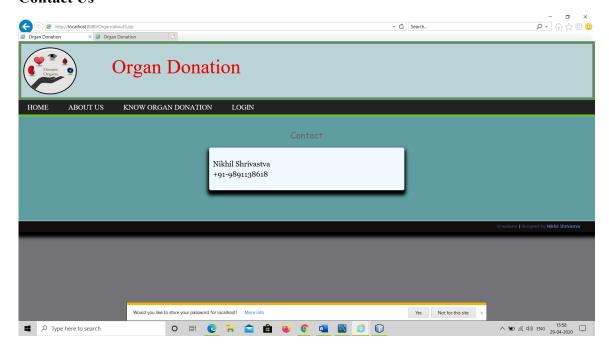
Figure 8.2 Login Form

AboutUs



Figure 8.3 About Us

Contact Us



CONCLUSION

It has been a great pleasure for me to work on this exciting and challenging project. This project proved good for me as it provided practical knowledge of not only programming in JSP and My SQL database web-based application and no some extent Windows Application and SQL Server, but also about all handling procedure related with "Organ Donation System". It also provides knowledge about the latest technology used in developing web enabled application and client server technology that will be great demand in future. This will provide better opportunities and guidance in future in developing projects independently.

BENEFITS

The project is identified by the merits of the system offered to the user. The merits of this project are as follows

- It's a web-enabled project.
- This project offers user to enter the data through simple and interactive forms. This is very helpful for the client to enter the desired information through so much simplicity.
- The user is mainly more concerned about the validity of the data, whatever he is entering.

 There are checks on every stages of any new creation, data entry or updation so that the user cannot enter the invalid data, which can create problems at later date.
- Sometimes the user finds in the later stages of using project that he needs to update some of the information that he entered earlier. There are options for him by which he can

- update the records. Moreover there is restriction for his that he cannot change the primary data field. This keeps the validity of the data to longer extent.
- User is provided the option of monitoring the records he entered earlier. He can see the desired records with the variety of options provided by him.
- From every part of the project the user is provided with the links through framing so that he can go from one option of the project to other as per the requirement. This is bound to be simple and very friendly as per the user is concerned. That is, we can say that the project is user friendly which is one of the primary concerns of any good project.
- Data storage and retrieval will become faster and easier to maintain because data is stored in a systematic manner and in a single database.
- Decision making process would be greatly enhanced because of faster processing of information since data collection from information available on computer takes much less time then manual system.
- Allocating of sample results becomes much faster because at a time the user can see the records of last years.
- Easier and faster data transfer through latest technology associated with the computer and communication.
- Through these features it will increase the efficiency, accuracy and transparency,

LIMITATIONS

- The size of the database increases day-by-day, increasing the load on the database back up and data maintenance activity.
- Training for simple computer operations is necessary for the users working on the system.

Referen	nces
	For Java Installation and Support
	www.java.com
	www.oracle.com
	For Java Tutorials
	www.tutorialspoint.com
	www.javatpoint.com
	For Application Development
	www.netbeans.org
	For SQL
	www.mysql.com/products/workbench
	For HTML and CSS
	www.w3c.com
	www.w3cschools.com

☐ For Bootstrap

www.lynda.com

www.getbootstrap.com