

ONLINE BLOOD BANK IDENTIFICATION

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Abstract

The number of persons who are in need of blood are increasing in large number day by day. In order to help people who are in need of blood, my Online Blood Bank can be used effectively for getting the details of blood donors having the same blood group and within the same city. With the help of my Online Blood Bank people who are having the thought of donating blood gets registered in my Online Blood Bank giving his total details. My Online Blood Bank site is available to everyone easily. A person who likes to donate blood gives his entire details i.e., fill in the registration form and can create a username with a password by which he can modify his details if at all there are any changes in his information given before. My site also helps people who are in need of 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 persons in major cities who represent a club or an organization with free of cost. If at all the people find any difficulty in getting blood from the contact persons, we will give them a Mobilink.i.e., India's Largest Paging Service number through which they can give the message on every one's pager with the blood group and city they are living in, such

that the donors who view the messages in their pagers having the same blood group and the in the same city, he contacts the person on phone who are in need of a blood. Such that the person gets help from us which saves his life.

Keywords: Online Blood Bank, Mobilink.i.e., Pagers.

1. Introduction

The process of building systems has always been complex with system becoming larger, the costs and complexities get multiplied. So the need for better methods for developing systems is widely recognized to be effective and the applied model should meet a few basic requirements. The model should be structured and cover the entire system development process from feasibility study to programming, testing and implementation. The model should utilize established methods and techniques like database designs, normalizations and structured programming techniques.

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The model should consist of building blocks, which define tasks, results and interfaces. The model should separate the logical system from the physical system.

Documentation should be a direct result of the development work and should be concise, precise and as non-redundant as possible. Based on the above requirements of the system model, system study has been made. Various methodologies have been applied for system study, evolving design documents, data modeling, input screen design and report design. The persons who like to donate blood registers in my site as well as he can modify the details if necessary, giving the Login Id and Password. The persons in need of blood searches for the persons having the same blood group and within the city. If he found a donor in his city then he gets the total details of the donor, if he doesn't find any donor then he is given the contact numbers and addresses of the Life Saving Contact Persons for major cities. If he doesn't have any chance to contact them then he will be provided with Mobilink Paging Services in order to get the blood.

2. System Requirements

Software Environment:

Software Environment is a technical specification of requirement of software product. This specifies the environment for development, operation and maintenance of the product.

Technology used:

- Http
- Http Basics
- php

- Oracle8
- SQL
- HTML
- JavaScript

HTTP:

The Hypertext Transfer Protocol is stateless, TCP/IP based protocol used for communicating on the World Wide Web. HTTP defines the precise manner in which Web clients communicate with Web servers. HTTP/1.0 is the most common version in use today. Oddly enough, this protocol is not officially recognized as an Internet standard. It is documented in the informational RFC 1945. Its successor, HTTP/1.1, is currently a proposed Internet standard and many browsers and servers now support this new version.

Hardware Configuration:

Processor: Intel Core I3 and above

RAM: 2GBRAM

Hard Disk Drive: 10 GBHDD

Keyboard: 104 keys

Display Type: LCD

Software Configuration:

Operating System: Windows 2008/Vista and above

Web server: WampServer

Web Browser: Google Chrome

Designing Tool: HTML

Server-SideScripting: php

Client-Side Scripting: JavaScript

Database: MySQL

System Design:

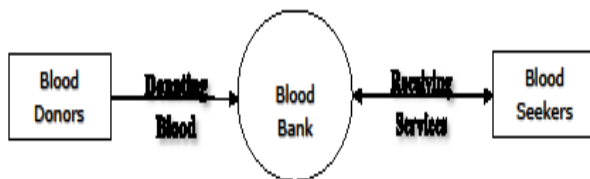
System design is the process of planning a new system or to replace the existing system. Simply, system design is like the blueprint for

building, it specifies all the features that are to be in the finished product. System design phase follows system analysis phase. Design is concerned with identifying functions, data streams among those functions, maintaining a record of the design decisions and providing a blueprint the implementation phase. Design is the bridge between system analysis and system implementation. Some of the essential fundamental concepts involved in the design of application software are:

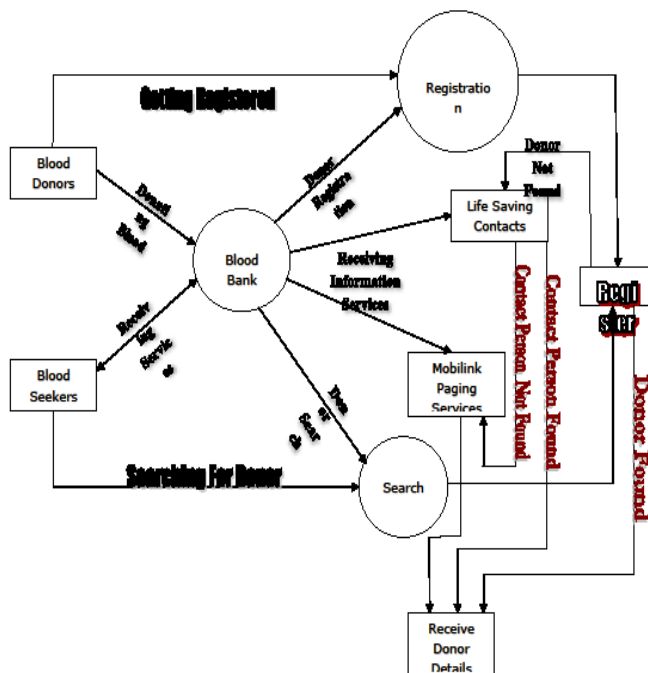
- Abstraction
- Modularity
- Verification

Data -Flow Diagrams:

ContextLevel-DFD:



II Level-DFD:



3. Source Code

Index.php

```

<? include "header.php";?>
<section id="hero" class="d-flex align-items-center justify-content-center">
<div class="container position-relative">
<h1>Welcome to Blood Bank</h1>
<h2>Your Blood Donation Can Help Save Lives</h2>
<a href="search.php" class="btn-get-started scrollto">Search Blood Bank</a>
</div>
</section>
<main id="main">
<section id="about" class="about">
<div class="container">
<div class="row">
<div class="col-lg-6">

</div>
<div class="col-lg-6 pt-4 pt-lg-0">
<h3>Blood Donation</h3>
<p>
Every two seconds, someone in the U.S. needs blood. This could be a little girl in the ICU or a mother with Stage 3 leukemia. If you're worried about needles, don't be—most blood donors compare the experience to a mild, split-second pinch! The entire process is very safe and very fast, and you will feel amazing knowing you potentially saved up to three people.
</p>
<div class="row">
<div class="col-md-6">
<i class="bx bx-receipt"></i>
<h4>Labarotary Services</h4>
</div>
  
```

```
<div class="col-md-6">
<i class="bx bx-cube-alt"></i>
<h4>Medical Services</h4>
</div>
</div>
```

Header.php

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta content="width=device-width, initial-
scale=1.0" name="viewport">
<title>Blood Bank</title>
<meta content="" name="description">
<meta content="" name="keywords">
<link href="assets/img/favicon.png"
rel="icon">
<link href="assets/img/apple-touch-icon.png"
rel="apple-touch-icon">
<link
href="https://fonts.googleapis.com/css?family
=Open+Sans:300,300i,400,400i,600,600i,700,
700i|Raleway:300,300i,400,400i,500,500i,600
,600i,700,700i|Poppins:300,300i,400,400i,500,
500i,600,600i,700,700i" rel="stylesheet">
<link
href="assets/vendor/bootstrap/css/bootstrap.mi
n.css" rel="stylesheet">
<link href="assets/vendor/bootstrap-
icons/bootstrap-icons.css" rel="stylesheet">
<link
href="assets/vendor/boxicons/css/boxicons.mi
n.css" rel="stylesheet">
<link
href="assets/vendor/glightbox/css/glightbox.m
in.css" rel="stylesheet">
<link href="assets/vendor/swiper/swiper-
bundle.min.css" rel="stylesheet">
```

```
<link href="assets/css/style.css"
rel="stylesheet">
</head>
<body>
```

Footer.php

```
<footer id="footer">
<div class="container d-md-flex py-4">

<div class="me-md-auto text-center text-md-
start">
<div class="copyright">
&copy; Copyright
<strong><span>NSRIT</span></strong>. All
Rights Reserved
</div>
<div class="credits">
Designed by <a
href="https://nsrit.edu.in/">NSRIT</a>
</div>
</div>
<div class="social-links text-center text-md-
right pt-3 pt-md-0">
<a href="#" class="twitter"><i class="bx bxl-
twitter"></i></a>
<a href="#" class="facebook"><i class="bx
bxl-facebook"></i></a>
<a href="#" class="instagram"><i class="bx
bxl-instagram"></i></a>
<a href="#" class="google-plus"><i class="bx
bxl-skype"></i></a>
<a href="#" class="linkedin"><i class="bxbxl-
linkedin"></i></a>
</div>
</div>
</footer>
```

Result.php

```
<? include "ctrl/includes/config.php";
$blood_group=$_GET['bloodgroup_bloodban
k'];
$city=$_GET['city_name'];
$area=$_GET['area_name'];
$rs=mysqli_query($con,"SELECT * from
bloodgroup bg LEFT JOIN bloodbank bb on
bg.bloodgroup_bloodbank =
bb.bloodbank_name where $blood_group>0
AND bb.bloodbank_city='$city' AND
bb.bloodbank_area='$area'");
$count=mysqli_num_rows($rs);
if($count<0){
echo "<script>alert('There are No blood
Units');</script>";
}
$rs1=mysqli_query($con,"SELECT * from
area where area_name='$area'");
$ro=mysqli_fetch_assoc($rs1);
?>
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta content="width=device-width, initial-
scale=1.0" name="viewport">
<title>Blood Bank Search Page</title>
<meta content="" name="description">
<meta content="" name="keywords">
<link href="assets/img/favicon.png"
rel="icon">
<link href="assets/img/apple-touch-icon.png"
rel="apple-touch-icon">
<link href="https://fonts.googleapis.com/css?fa
mily=Open+Sans:300,300i,400,400i,600,600i,
700,700i|Raleway:300,300i,400,400i,500,500i
,600,600i,700,700i|Poppins:300,300i,400,400i,
500,500i,600,600i,700,700i" rel="stylesheet">
```

Search.php

```
<? include "ctrl/includes/config.php"; ?>
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta content="width=device-width, initial-
scale=1.0" name="viewport">
<title>Blood Bank Search Page</title>
<meta content="" name="description">
<meta content="" name="keywords">
<link href="assets/img/favicon.png"
rel="icon">
<link href="assets/img/apple-touch-icon.png"
rel="apple-touch-icon">
<link
href="https://fonts.googleapis.com/css?family
=Open+Sans:300,300i,400,400i,600,600i,700,
700i|Raleway:300,300i,400,400i,500,500i,600
,600i,700,700i|Poppins:300,300i,400,400i,500,
500i,600,600i,700,700i" rel="stylesheet">
<link
href="assets/vendor/bootstrap/css/bootstrap.mi
n.css" rel="stylesheet">
<link href="assets/vendor/bootstrap-
icons/bootstrap-icons.css" rel="stylesheet">
<link
href="assets/vendor/boxicons/css/boxicons.mi
n.css" rel="stylesheet">
<link
href="assets/vendor/glightbox/css/glightbox.m
in.css" rel="stylesheet">
<link href="assets/vendor/swiper/swiper-
bundle.min.css" rel="stylesheet">
<link href="assets/css/style.css"
rel="stylesheet">
</head>
<body>
```


4. Detailed Description

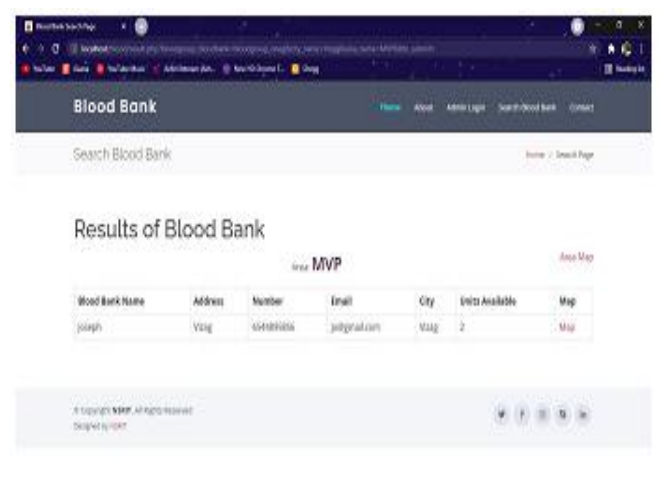
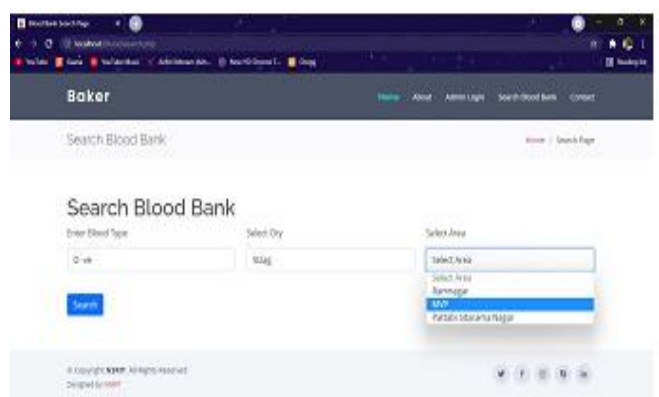
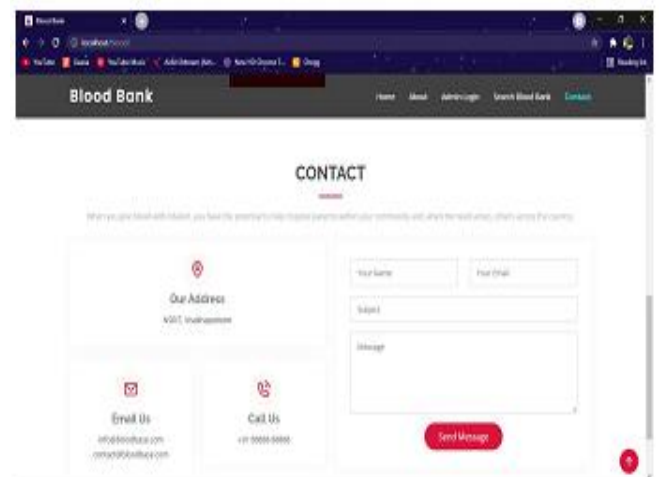
My project Online Blood Bank is to provide services for the people who are in need of blood by getting help from the donors who are interested in donating blood for the people. This project mainly elucidates the modules such as:

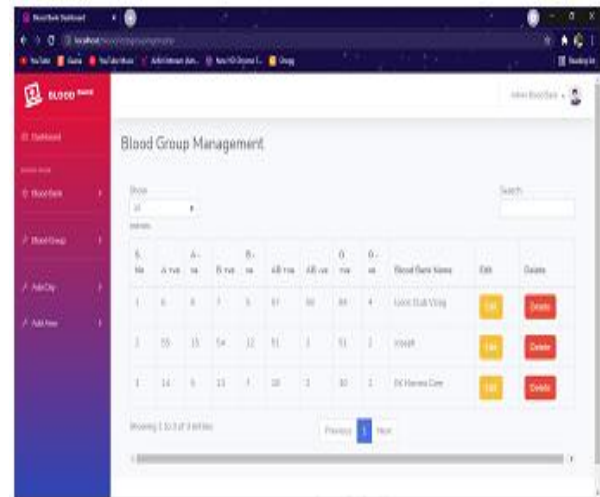
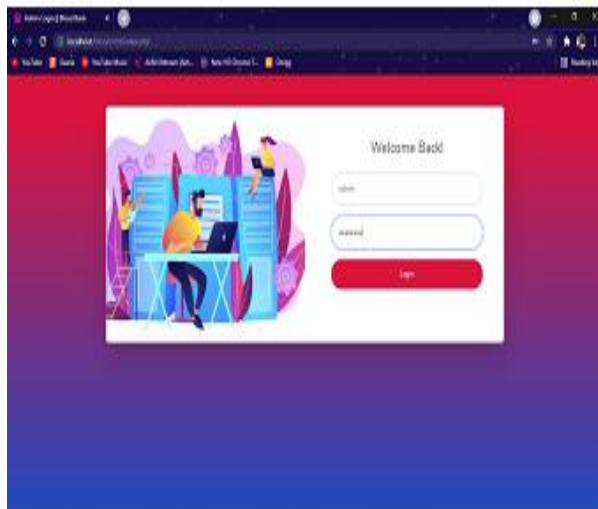
- Donor Registration
- Modifying Donor Information
- Donor Search
- Life Saving Contacts (in major cities)
- Mobilink Paging Services

These modules can be explained in detail as follows:

Donor Registration:

In this module, people who are interested in donating blood get registered in my site and give his overall details related to him, i.e. he fills in a registration form by giving the total details such as name, address, city, sex, wt, dob, blood group, telephone numbers, e-mail address, etc. He was also given two fields' username and password to fill such that he was a registered donor and he can enter the login form with his username and password and can modify his details if needed.





5. System testing's

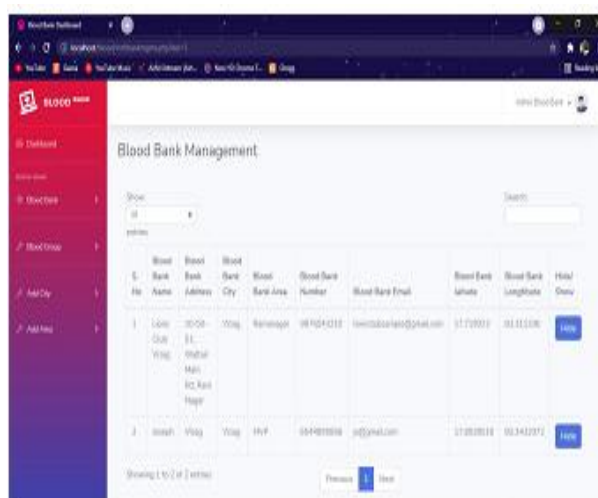
System testing is the stage before system implementation where the system is made error free and all the needed modifications are made. The system was tested with test data and necessary corrections to the system were carried out. All the reports were checked by the user and approved. The system was very user friendly with online help to assist the user wherever necessary.

Test Plan:

A test plan is a general document for the entire project, which defines the scope, approach to be taken, and schedule of testing, as well as identifying the test item for the entire testing process, and the person responsible for the different activities of testing. This document describes the plan for testing, the knowledge management tool.

Major testing activities are:

- Test units
- Features to be tested
- Approach for testing
- Test deliverables
- Schedule
- Personal allocation



Test units:

Test Case specification is major activity in the testing process. In this project, I have performed two levels of testing.

- Unit testing
- System testing

The basic units in Unit testing are:

- Validating the user request
- Validating the input given by the user
- Exception handling

The basic units in System testing are:

- Integration of all programs is correct or not
- Checking whether the entire system after integrating is working as expected.
- The system is tested as whole after the unit testing.

Test deliverables:

The following documents are required besides the test plan

- Unit test report for each unit
- Test case specification for system testing
- The report for system testing
- Error report

The test case specification for system testing has to be submitted for review before the system testing commences.

6. Implementation and Evaluation

During the software-testing phase each module of software is thoroughly tested for bugs and for accuracy of output. The system developed is very user-friendly and the detailed documentation is also given to the user as online help wherever necessary. The

implementation phase normally ends with the formal test involving all the components.

The entire system was developed using the ASP, HTML, JavaScript, Personal Web Server, and Oracle 8 as back end. The HTML is used to design the web page. The Personal Web Server is used to understand the client's request and to send response to them. The VBScript are used for client-side validations so that the user can enter only appropriate input in the input fields. The Oracle 8 is the back-end tool where the database resides. Hence the design of the entire system is user-friendly and simple the implementation has been quite easy.

Conclusion

This project has given me an ample opportunity to design, code, test and implements an application. This has helped in putting into practice of various Software Engineering principles and Database Management concepts like maintaining integrity and consistency of data. Further, this has helped me to learn more about MySQL, HTML, Php, JavaScript and WampServer.

I thank my guide for his invaluable contribution in guiding me throughout the project. I also thank my parents and friends who have supported and motivated me to complete this project successfully.

Extensibility:

The other features, which the Blood bank services provide, can also be incorporated into this Blood Bank. The Encryption standards can also be used to make the transactions more

secure. The Socket Secure Layer protocol can also use in implementing the system, which gives highest security in the Internet.

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.

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