**e-Blood Donation**

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# INTRODUCTION:

## Purpose

The purpose of this document is to serve as a guide to designers, developers, and testers who are responsible for the implementation of the “e-Blood Donation”. It should give the development and testing team all the information necessary to design, develop, and test the software.

## Scope

The project titled “e-Blood Donation” that is being built to achieve efficiency in recording and maintaining of information about donors and receivers of blood. A GUI based system that is both user-friendly and easily extendable will be developed.

## System Overview

This mini project helps the donors to donate the blood periodically, and the information is stored in our database which can be viewed by the donors as well receivers. It also helps the receivers to request for blood as and when required. They can either contact the donors directly with the information provided on the website or else they can enter the details for the requirement of blood in the website and request it from the blood bank.

# 2. References

1. “Integrated approach to Software Engineering” , Pankaj Jalote, Third Edition, Publication: reprint in 2014.

# Definitions, Acronyms, and Abbreviations

## 3.1 Definitions

**Users / clients:** Users / clients are the people who actually use our software. The users of our system can be broadly categorized into:

|  |  |
| --- | --- |
| **Admin** | Main master module to control the working of the system. |
| **User** | The people who want to the use the services of the website (in need to donate or receive blood). |

## 3.2 Abbreviations and Acronyms

ASP : Active Server Pages

CFD : Context Flow Diagram

CSS : Cascading Style Sheets

DBMS : Database Management System

DFD : Data Flow Diagram

E-R Diagram : Entity Relationship Diagram

HTML : Hypertext Markup Language

HTTP : Hypertext Transfer Protocol

IP : Internet Protocol

MS : Microsoft

SQL : Structured Query Language

SRS : Software Requirement Specification

UML : Unified Modeling Language

URL : Uniform Resource Locators

WWW : World Wide Web

# Product Functionality

The major functionalities of this system are as follows:

* User:

This module will function as the master module where the people can provide/receive blood at the blood bank in periodic times which can be accessed by the users on request or by contacting them directly. (information of the user would be provided on the site.)

* Admin:

Overlooks the entire system for errors/discrepancies in the implementation process.

# Operating Environment

For the development of this project we are using Visual Studio 2010 with a .NET framework version 4.0 as the frontend and Microsoft SQL Server as the backend. Since this is a client based model it should be capable of handling the functionalities efficiently.

## 5.1 Hardware Requirements

The minimum hardware requirements of this project are as follows

1. Any standard monitor with a resolution of 1024X768 pixel resolution
2. 1.6GHz microprocessor
3. 2 GB RAM

## 5.2 Software Requirements

The software components that are used in the development of this project are as follows:

1. Operating System: Windows XP Service Pack 3 or higher
2. Framework: .Net 4.0
3. Front End: ASP.NET Microsoft Visual Studio 2010 Professional
4. Back End: Microsoft SQL Server
5. Browser: Any web browser (Preferably Google Chrome)

# Design and Implementation Constraints

1. Browser testing will be done keeping in mind Google Chrome
2. Presence of an admin module overlooking the complete system.
3. The receiver will have the right to add their own information on the website.
4. Donors have the right to add and edit their information on the site.

# User Documentation

User manual will be prepared for this website. However, hands- on training session would be provided to the users once the system is in place.

# Assumptions and Dependencies

* It is assumed that the users have basic computer knowledge without any specific technical expertise.
* It is assumed that the admin will have the authority to customize the system.
* Although this web application is suitable for any kind of web browser, Google Chrome is the most preferred web browser to run this application. All the style rules, controls are rendered correctly because the Visual Studio is the products of Microsoft hence they are highly compatible.

# Functional Requirements

## 9.1 Administrator

This module overlooks the entire system which includes updating and deleting the transactions and user information.

## 9.2 User Registration Page:

**Pre-Condition:** User gains access to the system and selects theRegistrationlink.

**Steps:**

* Form is displayed where the user can enter all the details assuming that they are true.
* Users can enter the preferred user ID and password to login to the website.
* User has to make sure to enter the valid user type(donor/receiver)
* Finally the form is saved into the database on click of register which is handled by the admin.

**Post-Condition:** Successful creation ofNew user.

## 9.3 User Login Page

**Pre-Condition:** Users should enter valid User ID and Password.

**Steps:**

* Click on to the login link to view the login page.
* If you enter wrong User ID and Password then it will display a message saying

“Invalid User”

* Enter the appropriate User ID and Password and click on to the LOGIN button and gain access to the system.

**Post-Condition:** SuccessfulLoginwill redirect you to the e-Blood Donation Home Page.

## 9.4 Search function

**Pre-Condition:** Users should be able to enter in the required blood group to display relevant details.

**Steps:**

* User enters the required blood group and clicks on search button.

**Post-Condition:** Successful display of information for relevant search.

**NOTE:** Here all the users of matching criterion is displayed (depending on the search).