Software Requirements Specification

For

Supply Chain Management(SCM)



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# Introduction

## Purpose

The purpose of this Software Requirements Specification (SRS) document is to provide a detailed description of the functionalities of the Supply Chain Management(SCM). This document will cover each of the system’s intended features. The document will also cover hardware, software, and various other technical dependencies.

The purpose of Supply Chain Management (SCM) is to set the synchronized decision & activities, utilized effectively integrate suppliers, manufacturers, transporters, warehouses, retailers & customers so that the right product or service is distributed at the right quantities, to the proper locations & at the appropriate time, in order to minimize system wide costs while satisfying customer service level requirements.

## Intended Audience and Reading Suggestions

This document is intended for all individuals participating in and/or supervising the Supply Chain Management(SCM) project. Readers interested in a brief overview of the product should focus on the rest of Part 1 (Introduction), as well as Part 2 of the document (Overall Description), which provide a brief overview of each aspect of the project as a whole. These readers may also be interested in Part 6 (Key Milestones) which lays out a concise timeline of the project.

Readers who wish to explore the features of Supply Chain Management in more detail should read on to Part 3 (System Features), which expands upon the information laid out in the main overview. Part 4 (External Interface Requirements) offers further technical details, including information on the user interface as well as the hardware and software platforms on which the application will run.

Readers interested in the non-technical aspects of the project should read Part 5, which covers performance, safety, security, and various other attributes that will be important to users. Readers who have not found the information they are looking for should check Part 8 (Other Requirements), which includes any additional information which does not fit logically into the other sections.

## Product Scope

The main objective of this project is to find the blood donor in time with his/her details. Some of the aims of the project includes:-

1. Help users to select the blood donor of required blood group.
2. To provide information about the donor like contact and medical details.
3. To provide an estimated amount of blood units available in blood banks according to different blood groups.
4. To allow ease of access to search donor, blood bank, personal details and logout.

## References

1. Hanfield R. B.,Nichols E. L. (1999), Introduction to Supply Chain Management**,** Prentice Hall Press, 143-156.
2. Maes P.,(1997) Humanizing Global Computer, IEEE Internet Computing**,** vol.1(4),10-19.

## PHP and MySQL Web Development by Luke Welling

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5. PHP Academy video tutorials [*https://www.youtube.com/user/phpacademy*](https://www.youtube.com/user/phpacademy)

# Overall Description

**2.1 Product Perspective**

Since this is at initial stage so, there is no cost for because this is new idea to enhance the blood bank system. There are various reasons why should anyone use this program. First it’s a framework where you can create edit your details and search multiple choices of donors as per the blood group. Second it’s an easy and reliable android application that is very unique in its category where you can select and find the blood availability quickly with details of your choice. And third due to its free of cost you can have it without any charges. The major components of the system as noted in the previous sections are the improver client Window and the Improver Server window.

* The Improver Client is a simple client-window form that communicates with the active improver Server and its purpose is to run the test sessions that were provided and prints the results. There can be multiple clients that can connect to a single server.
* The improver Server is a database editor that it can be enabled in server mode. As long as is in that state it opens ports to accept improver Client connections or offline connections record the session statistics such as who is connected at the present time and saves this information in log files.

## 2.2 Product Functions

The product includes many functionalities of the organization. These functionalities are:

1. Choosing a username and password for the user
2. Login Signup authentication
3. Selecting blood group through dropdown list
4. Tabs for easy switching between multiple modules
5. Numbers of units available in blood bank
6. Name and details of donors available

## User Classes and Characteristics

Many Users such as Admin and others can use the system. Only admin of the system should be able to enter blood bank information and modify any kind of detail in the system except the personal details of user.

So, Admin can:

1. Add blood bank details in database
2. Modify details
3. Modify the blood groups
4. Modify layouts

The user will get various options on screen:

a) Blood camps

b) Search donors

c) Search blood banks

d) Request for blood

e) Nearby hospital

f) View notification

g) Emergency contact details

h) Emergency medical details

## Operating Environment

The product can run on android devices with version Jelly Bean and above. The android app is not resource-or graphics-intensive, so there are no practical hardware constraints. The Blood Bank database will be stored on the server using MySQL and will be interfaced using PHP.

## Design and Implementation Constraints

Every user must be comfortable using android devices. All operations are in English so user must have basic knowledge of English.

## User Documentation

The User documentation has already been listed in References part.

## Assumptions and Dependencies

## We assume all users have basic device knowledge and also our system provides good user interface and help section to help the user at any moment during access of the android application.

# External Interface Requirements

## User Interfaces

All activities of Supply Chain Management(SCM) have screen-based interaction. It incorporates with effective GUI concepts and focuses on user-friendly systems. It has good, appealing and attractive modules to select the required process. Home page of Supply Chain Management(SCM) provides all basic authentications that the user requires for successful processing.

As the website starts, the user gets the splash screen followed by login/signup screen where he can set his user id and login to system. After clicking button, the multiple tabs are available to search donor, blood bank and personal details.

## Hardware Interfaces

Memory: 512 MB Ram or Higher

Hard Disk: 20 GB HDD or Higher

## Software Interfaces

Operating System: Any (Microsoft Windows, etc)

Web Developing Language: PHP (server side), JavaScript (client side)

Tools: XAMPP, Apache web Server

Database: MySQL

Front End: HTML5, CSS

## Communications Interfaces

The product can run on any android device. TCP is required for the client to connect to the server. The product also calls for a database system that stores information regarding donors, blood banks and user’s personal details. The HTTP server is used for it.

# System Features

In this section, we describe the functional capabilities of the system. For each functional requirement, the required inputs, desired outputs and processing requirements are specified. Functional Requirements specify which outputs should be generated from which inputs. They describe the relationship between the input and output of the system.

## Choosing a user id

## As soon as the user enters the home screen of application of Blood Bank, a screen with choosing a user id is displayed in a register section. User id is unique and no two or more can have same user id.

## 4.2 Selecting the donor

After the authentication, the user can select the blood group through dropdown list he wants to opt for the donor. There are multiple donors available for the selected blood group where the user can select and see their details. After that he can contact to them.

## 4.3 Displaying Details

The donors along with their details are stored in the database. The details which are stored in the database are displayed to the user according to the selection which is set with the information in popup notification.

## Placing the Order

If the user is unable to find donor of required blood group then he can send request to blood bank showing the estimated units of blood available.

## Edit personal details

There is an option which is also provided by which a user can select the checkbox and become a donor. By selecting the checkbox his details will get add into donors list of his blood group.

# Other Nonfunctional Requirements

**5.1 Performance Requirements:**

The proposed system that we are going to develop will be used as the Chief performance system for providing help to the admin in managing the whole database of the donors and blood banks. Therefore, it is expected that the database would perform functionally all the requirements that are specified.

**5.2 Safety Requirements:**

The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database backup.

Also, if internet connection lost then user will not be able to access the information.

**5.3 Security Requirements:**

We are going to develop a secured database. There are different categories of users namely Administrator, Users who will be viewing either all or some specific information from the database.

Depending upon the category of user the access rights are decided. It means if the user is an administrator then he can be able to modify the data, append etc. All other users only have the rights to select donor and update his personal details.

# Other Requirements

Some other requirements that may be required during the development of the application are:

* Some capital may be required in the development of the project.
* A computer system with all the necessary hardware and software requirements running perfectly fine will be required.
* Since the project would be developed in multiple phases and would be developed by three people the project must be shared on a common platform.
* Restrict Communications between some areas of the program.