3. ANALYSIS

3.1 INTRODUCTION

In Existed blood donation systems, data integrity challenges can arise due to centralized databases, manual record-keeping processes and limited transparency. Additionally, the lack of transparency in traditional systems makes it difficult to track the journey of blood donations from donor to recipient, increasing the risk of inefficiencies and delays in the supply chain. Implementing blockchain technology in blood donation systems offers a comprehensive solution for ensuring data integrity. In this proposed system, Blockchain technology enhances the resilience, security and efficiency of blood donation systems, ultimately contributing to improved healthcare outcomes and saving lives.

After analyzing the requirements of the task to be performed, the next step to analyze the problem and understand its context. The first main task is studying the existing system and understand the requirements and domain of the new system. Both the tasks are equally important, but the first task serves as a basis of giving the functional specifications and then successful design of the proposed system. Understanding the properties and requirements of a new system is more difficult and requires creative thinking and understanding of existing running system is also difficult, improper understanding of the present system can lead diversion from solution.

3.2 SOFTWARE REQUIREMENTS SPECIFICATION

Software requirements specification consists of three requirements.

- **User Requirements**
- **Hardware Requirements**
- **Software Requirements**

3.2.1 User Requirements

Requirements Specification plays an important role to create quality software solution. Requirements are refined and analyzed to assess the clarity.

Requirements are represented in a manner that ultimately leads of successful software implementation. Each requirement must be consistent with the overall objective.

The development of this project deals with the following requirements:

1. Software Requirements

2. Hardware Requirements

3.2.2 Software Requirements

Software Requirements specification is produced at the end of the analysis task. Software requirement is a difficult task, only decided after testing whether it fits the requirements

- **Operating System** **Windows 7**
- **Coding Languages** **Java,J2EE(Servlet)**
- **Frontend** **J2EE,HTML,CSS**
- **Scripts** **JavaScript**
- **Database** **MySQL**
- **Server-Side Script** **Java Server Pages(JSP)**
- **Application Server** **Tomcat 9.0**

3.2.3 : Hardware Requirements

The selection of hardware is very important in the existence and performance of any software. The size and capacity are the main requirements. The typical web server must have the following specifications for good performance:

- **Processor** **Intel i3**
- **RAM** **4 GB (min)**
- **Speed** **1.1Ghz**
- **Hard Disk** **20 GB**
- **Key Board** **Standard Windows Keyboard**

3.3 FEASIBILITY

3.3.1 Feasibility Study

An important outcome of preliminary investigation is the determination that the system request is feasible.

This is possible only if it is feasible within limited resource and time. The different feasibilities that have to be analyzed are:

- **Operational Feasibility**
- **Economic Feasibility**
- **Technical Feasibility**

1. Operational Feasibility

Operational Feasibility deals with the study of prospects of the system to be developed. This system operationally eliminates all the tensions of the admin and helps him in effectively tracking the project progress.

This kind of automation will surely reduce the time and energy, which previously consumed in manual work. Based on the study, the system is proved to be operationally feasible.

2. Economic Feasibility

Economic Feasibility or cost-benefit is an assessment of the economic justification for a computerized based project. As hardware was installed from the beginning and for lots of purposes thus the cost on project of hardware is low. Since the system is a network based any number of employees connected to the LAN within that organization can use this tool from at any time.

The Virtual Private Network is to be developed using the existing resources of the organization. So this project is economically feasible.

3. Technical Feasibility

According to Roger S. Pressman, Technical Feasibility is the assessment of the technical resources of the organization. The organization needs IBM compatible machines with a graphical web browser connected to the internet and intranet.

The system is developed for platform independent environment. Java Server Pages, JavaScript, HTML, SQL server and WebLogic Server are used to develop the system.

The technical feasibility has been carried out. The system is technically feasible for development and can be developed with the existing facility.

3.4 Summary

Understanding the properties and requirements of a new system is more difficult and requires creative thinking. Understanding of existing running system is also difficult, improper understanding of present system can lead to diversion from solution. After analyzing the requirement of system. It is provides an easy way to design of the system.