Requirements Elicitation Report

Blood Donation Management System  
  
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# 1. Requirements Elicitation

Requirements elicitation is the process of gathering necessary information from stakeholders to define the functional and non-functional requirements of a system. For the Blood Donation Management System, we gathered data from users (donors, recipients, and admins), stakeholders (healthcare professionals), and relevant data sources to ensure the system meets all necessary needs.

# 2. Elicitation Techniques

The following techniques were employed to gather requirements for the system:

## 2.1 Google Forms Survey

Google Forms was used to create and distribute surveys to a large pool of participants. The survey helped collect quantitative data on the general public’s willingness to donate blood, preferred system features, and usability concerns. The online nature of Google Forms allowed us to gather responses efficiently and reach a diverse group of potential users, ensuring we captured a broad spectrum of opinions.

## 2.2 Interviews

Interviews were conducted with potential system users including blood donors, recipients, and healthcare providers. The goal was to understand how they interact with blood donation processes and identify any challenges or desired features. These interviews provided in-depth insights into user expectations and specific system needs.

## 2.3 Focus Groups

Focus group discussions were held to gather qualitative feedback from a select group of users. These discussions helped identify key priorities for both blood donors and recipients, such as the need for an easy registration process, accurate search features, and the ability to track donation history.

# 3. Elicitation Preparation

Before conducting elicitation sessions, the following preparations were made:

## 3.1 Defined Stakeholders

The primary stakeholders for this project included blood donors, recipients, healthcare professionals, and system admins.

## 3.2 Defined Objectives

The objectives for the system were defined, including providing ease of use, quick access to nearby donors/recipients, and ensuring a secure and reliable system for blood donation management.

## 3.3 Developed Questionnaires and Interview Scripts

To ensure consistent and relevant data collection, structured questionnaires and interview scripts were created. These were used for both the Google Forms survey and the one-on-one interviews.

## 3.4 Identified Existing Systems

An analysis of existing blood donation systems was conducted to understand best practices and ensure that the new system would address any existing gaps.

# 4. Conduct the Elicitation

The elicitation process began with initial meetings with stakeholders. These meetings included interviews, surveys, and focus groups aimed at understanding both technical and non-technical needs. Informed consent was obtained from all participants to ensure ethical data collection.

## 4.1 Introduction

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## 4.2 Body

The elicitation process involved using Google Forms to gather large-scale data from respondents, alongside smaller-scale interviews and focus group discussions. This combination allowed us to capture a wide range of user needs, from general features to more specific technical requirements.

## 4.3 Close

Once all elicitation sessions were completed, a follow-up meeting was held to verify the gathered data. This helped ensure that all requirements, both functional and non-functional, were accurately captured and understood.

## 4.4 Follow-up

A follow-up session was conducted a month after the initial data collection. This session confirmed that the system requirements were on track to meet user expectations. Any changes to the requirements were discussed and documented.

# 5. Analyze Elicitation Results

The results from the Google Forms survey, interviews, and focus groups were analyzed to identify key findings:

1. Users desired a simple, easy-to-use registration process, with the ability to track donations and requests.

2. Admins needed an efficient management system to view users, approve donations, and remove accounts when necessary.

3. Donors and recipients emphasized the importance of filtering blood donors by location and blood type.

These results were used to define the functional and non-functional requirements that guided the development of the system.

# 6. Difficulties of Requirements Elicitation

During the elicitation process, we encountered the following challenges:

## 6.1 Conflicting Requirements

Some stakeholders expressed conflicting needs. For example, some users wanted a detailed tracking system, while others emphasized the need for a simplified user interface.

## 6.2 Limited Access to Stakeholders

Accessing all stakeholders, particularly healthcare professionals and remote donors, proved challenging.

## 6.3 Evolving Requirements

As the process progressed, new requirements emerged, necessitating updates and revisions to the gathered data.

## 6.4 Balancing Security and Usability

One of the major challenges was balancing the need for robust data security with the requirement for a user-friendly interface.