Online Blood Bank System Requirements Document 1.0

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1.0 Introduction

1.1 Purpose of this document

This document is aimed at:

- Providing the necessary inputs to the detailed requirements gathering phase and further on for the SDLC processes.

- This document also serves to establish the traceability between the Business Objectives and the requirements identified in the proposed solution and how they satisfy the stated objectives.

- Provide expectation traceability in terms of the requirements and the user expectation

- Serves as a formal template for documenting the Business Requirements which also includes statutory and regulatory requirements.

The purpose of this document is to systematically capture requirements for the project and the system to be developed. Functional requirements are captured in this document. It also serves as the input for the project scoping.

1.2 Project Overview

1.2.1 Objectives

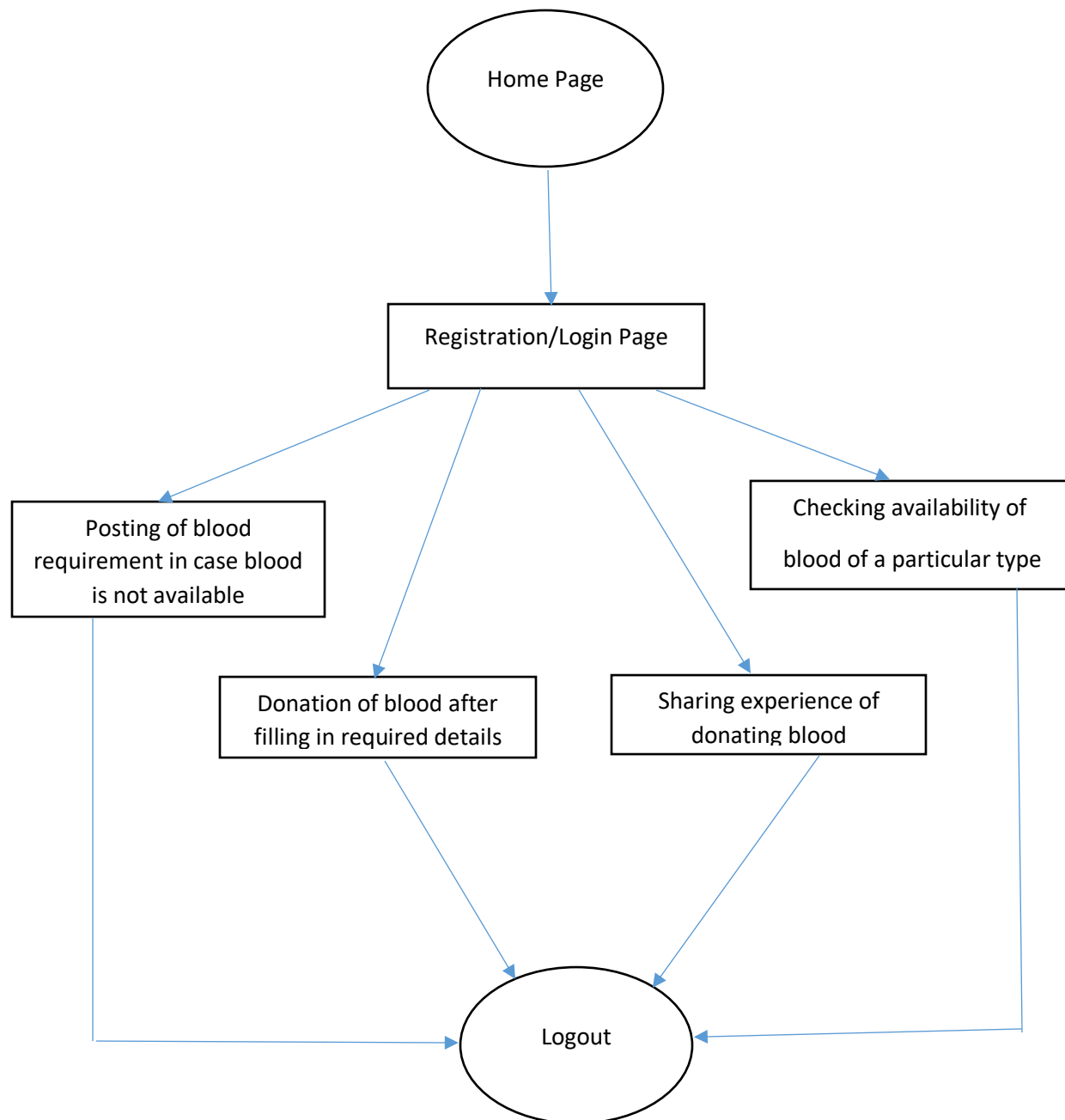Below are the objectives that shall be fulfilled post the execution of this project:

- User registration & credential authentication

- Posting of blood requirement by any registered user

- Fetching donor information and blood availability information according to a user's need.

1.3 Intended Audience

- All members of the project.

- Delivery assurance/excellence group

2.0 Process Architecture

Below is the overall functional flow of the project including the components of interaction:

```
                        ┌─────────────┐
                        │  Home Page  │
                        └──────┬──────┘
                               │
                               ▼
                     ┌──────────────────────┐
                     │ Registration/Login   │
                     │        Page          │
                     └──────────────────────┘
```

Home Page

Registration/Login Page

Posting of blood requirement in case blood is not available

Checking availability of blood of a particular type

Donation of blood after filling in required details

Sharing experience of donating blood

Logout

3.0 High Level Business Requirements

Note - Primary focus is to complete developing the critical requirements (highlighted in Yellow) and then to proceed with the remaining requirements.

S.No.	Business Requirement ID	Short Description	Description in detail	Interacting Business Processes
1	Req_1	Home Page	Home page should have some information why Blood donation is required and options for login	
2	Req_2	User Registration	Ability of the system to procure the fundamental details of the User/admin	
3	Req_3	User Authentication	Ability of the system to authenticate the user credentials of the registered user	
4	Req_4	Blood Availability	Ability of the system to allow requestor to request for the required blood and unit	
5	Req_5	Blood Requirement Posting	Ability of the system to display details of blood requirement	
6	Req_6	Blood Donation	Ability of the system to store the details of blood donated by a user	
7	Req_7	Experience Sharing	Ability of the system to capture the experience of a blood donor and display on the home page.	
8	Req_8	Tips on Donating	Ability of the system to have a page for Instructions for Donating blood	
9	Req_9	FAQ	Ability of the system to have a page for FAQ for Donating blood	
10	Req_10	Send reminders	Send Mail/message notification for all the donators(who have donated before 3 months) to donate blood	If mail/message option is not possible due to access issues, make sure that admin can view the list with minimum details
11	Req_11	Send notification	Send Mail/message notification for only the donators with that particular blood type (who have donated before 3 months) to donate blood	If mail/message option is not possible due to access issues, make sure that admin can view the

			when there is a requirement.	list with minimum details

4.0 Detailed Business Requirements

4.1 Functional Requirements

The functional requirements are charted for each of the high level requirements called out in the earlier section:

Additionally, the following elements are captured for each business requirement in the table provided below: -

* Req. Type = (F Core Functionality, E Exception, UI User Interface, R Reporting)

** Priority of Requirement = (1=Base Functionality, 2=Advanced Functionality,

3=Additional Opportunities)

** Originator = (Name of the business process of the system/ department or function

name in the customer organization)

The Requirements in this document are prioritized as follows:

Value	Rating	Description
1	Critical	This requirement is critical to the success of the project. The project will not be possible without this requirement.
2	High	This requirement is high priority, but the project can be implemented at a bare minimum without this requirement.
3	Medium	This requirement is somewhat important, as it provides some value but the project can proceed without it.
4	Low	This is a low priority requirement, or a "nice to have" feature, if time and cost allow it.
5	Future	This requirement is out of scope for this project, and has been included here for a possible future release.

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
Req_1.1	Home Page	Home page should have some information on blood bank and the login /registration option	UI	Medium	NA	Req_1	
Req_2.1	User Registration	When the user clicks on the registration link, it should re-direct to registration form.	UI	Critical	NA	Req_2	
Req_2.2	User Registration	User needs to fill some of the basic attributes/fields as mentioned below: First Name, Last Name, Age, Gender, Contact Number, Email, Password, Weight, State, Area, Pin code, Blood Group.	UI	Critical	NA	Req_2	Please refer to Table 1.0 under References
Req_2.3	User Registration	Clicking 'Submit' should validate the datatype constraints for each field	F	Critical	NA	Req_2	
Req_2.4	User Registration	User failing to provide information on the mandatory fields be provided with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	E	Medium	NA	Req_2	
Req_2.5	User Registration	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_2	
Req_2.6	User Registration	Upon saving the information in the database, display the message 'New user created successfully'.	E	Medium	NA	Req_2	
Req_3.1	Credential Authentication	A registered user – is able to click 'Login' link, after keying in 'User ID' & 'Password' field and get his credentials authenticated with the existing database entry.	F	Critical	NA	Req_3	
Req_3.2	Credential Authentication	If a registered user – is unable to login and get the credentials authenticated, the user is presented with relevant error messages: Invalid User ID (or) Incorrect Password	F	Critical	NA	Req_3	
Req_4.1	Blood Availability	To check the availability of blood, a particular user has to fill in the following mandatory details: State, Area, Pin code and Blood Group and click on 'search' button.	UI	Critical	NA	Req_4	Please refer to Table 3.0 under References
Req_4.2	Blood Availability	User failing to provide information on the mandatory fields be provided with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red.	E	High	NA	Req_4	
Req_4.3	Blood Availability	On clicking the 'search' button, the database is searched for the given details.	F	Critical	NA	Req_4	
Req_4.4	Blood Availability	Ability of the portal to display the search results.	UI	Critical	NA	Req_4	

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
Req_4.5	Blood Availability	If there are no search result, the user will be asked to confirm whether he/she wants to post his/her requirement details on the home page.	UI	High	NA	Req_4	
Req_4.6	Blood Availability	On confirming, the requirement form will be displayed on the home page.	F	High	NA	Req_4	
Req_5.1	Blood Requirement Posting	In case a registered user can't find the blood of his/her specific requirements, he/she can fill in the following mandatory details: State, Area, Pin code and Blood Group and submit the details for finding an appropriate donor.	UI	Critical	NA	Req_5	Please refer to Table 2.0 under References
Req_5.2	Blood Requirement Posting	On clicking 'submit', the blood requirement details will be displayed on the home page and can be viewed by any site visitor.	F	Critical	NA	Req_5	
Req_5.3	Blood Requirement Posting	User failing to provide information on the mandatory fields with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	E	Medium	NA	Req_5	
Req_5.4	Blood Requirement Posting	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_5	
Req_5.5	Blood Requirement Posting	Upon saving the information in the database, display the message 'Your blood requirements are posted successfully on the home page'.	E	Medium	NA	Req_5	
Req_6.1	Blood Donation	A user willing to donate blood can look for the Blood requirement posting and show interest				Req_6	
Req_6.2	Blood Donation	A user willing to donate blood can fill in the following mandatory details: State, Area, Pin code and Blood Group and submit a request to the nearest blood bank to donate blood.	UI	Critical	NA	Req_6	Please refer to Table 3.0 under References
Req_6.3	Blood Donation	User failing to provide information on the mandatory fields be provided with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red.	E	Critical	NA	Req_6	
Req_6.4	Blood Donation	Post-successful field level validation, display the below details for user to choose for blood donation: Hospital name Date Time City	UI	Critical	NA	Req_6	Please refer to Table 4.0 under References

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
Req_6.5	Blood Donation	Validate the slot availability selected by user and display appropriate message: "Slot booked successfully, you are going to save a life" "Sorry, please try a different slot"	F	Critical	NA	Req_6	
Req_7.1	Experience Sharing	A user willing to sharing his/her experience of donating blood and saving life can fill in the following mandatory text-field: Hospital Name City Feedback Comments and click on submit button.	UI	Low	NA	Req_7	Please refer to Table 5.0 under References
Req_7.2	Experience Sharing	User failing to provide information on the mandatory fields be provided with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red.	E	Low	NA	Req_7	
Req_7.3	Experience Sharing	Post-successful field level validation, save the information in the database	F	Low	NA	Req_7	
Req_7.4	Experience Sharing	On clicking 'submit' button, the user experience will be shared on the home page and can be viewed by any site visitor.	F	Low	NA	Req_7	
Req_8.1	Tips on Donating	Add a page for Instructions for Donating blood for the user to view	U	Low	NA	Req_8	
Req_9.1	FAQ	Add a page for FAQ for Donating blood for the user to view	U	Low	NA	Req_9	
Req_9.2	FAQ	Provide option for the user to raise any query on donating blood	U	Low	NA	Req_9	
Req_9.3	FAQ	Admin should be able view the query and answer to it	U	Low	NA	Req_9	
Req_9.4	FAQ	User should be notified when their query is answered	U	Low	NA	Req_9	
Req_10.1	Send reminders	Send Mail/message notification for all the donators(who have donated before 3 months) to donate blood	U	Low	NA	Req_10	
Req_11.1	Send notification	Admin should be able to view the available unit of blood types.	U	Low	NA	Req_11	
Req_11.2	Send notification	Send Mail/message notification for only the donators with that particular blood type (who have donated before 3 months) to donate blood when there is a requirement.	U	Low	NA	Req_11	

5.0 References

Note: Table details can be altered as required as the project progress. Additional tables can be added as required.

5.1 Table 1.0

Field Name	Field Type	Data Type	Mandatory	Possible Values
First Name	Text(50)	Alphabetic	Yes	
Last Name	Text(50)	Alphabetic	Yes	
Age	Numeric(2)	Numeric	Yes	
Gender	Drop Down	NA		Male, Female
Contact Number	Text(10)	Numeric	Yes	
Email	Text(15)	Email	Yes	
Password	Text(15)	Alphanumeric	Yes	
Weight	Numeric(3)	Numeric	Yes	
State	Drop Down	NA	Yes	
Area	Drop Down	NA	Yes	
Pin code	Numeric(6)	Numeric	Yes	
Blood Group	Drop Down	NA	Yes	All possible blood groups

5.2 Table 2.0

Field Name	Field Type	Data Type	Mandatory	Possible Values
Blood Group	Drop Down	NA	Yes	All possible blood groups
State	Drop Down	NA	Yes	
Area	Drop Down	NA	Yes	
Pin code	Numeric(6)	Numeric	Yes	
Contact Number	Text(10)	Numeric	Yes	

5.3 Table 3.0

Field Name	Field Type	Data Type	Mandatory	Possible Values
Blood Group	Drop Down	NA	Yes	All possible blood groups
State	Drop Down	NA	Yes	
Area	Drop Down	NA	Yes	
Pin code	Numeric(6)	Numeric	Yes	
Contact Number	Text(10)	Numeric	Yes	

5.4 Table 4.0

Field Name	Field Type	Data Type	Mandatory	Possible Values
Hospital Name	Text(15)	Alphabetic	Yes	
City	Text(15)	Alphabetic	Yes	
Date	Drop Down	NA	Yes	
Time	Drop Down	NA	Yes	

5.1 Table 5.0

Field Name	Field Type	Data Type	Mandatory	Possible Values
Hospital Name	Text(15)	Alphabetic	Yes	
City	Text(15)	Alphabetic	Yes	
Feedback Comments	Text(500)	Alphabetic	Yes	

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