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| **Online Blood Bank System**  **Requirements Document**  **1.0** |
| |  |  |  |  | | --- | --- | --- | --- | |  | **Prepared By / Last Updated By** | **Reviewed By** | **Approved By** | | **Name** | Cognizant Academy |  |  | | **Role** |  |  |  | | **Signature** |  |  |  | | **Date** |  |  |  | |

Table of Contents

[1.0 Introduction 3](#_Toc2331439)

[1.1 Purpose of this document 3](#_Toc2331440)

[1.2 Project Overview 3](#_Toc2331441)

[1.2.1 Objectives 3](#_Toc2331442)

[1.3 Intended Audience 3](#_Toc2331443)

[2.0 Process Architecture 4](#_Toc2331444)

[3.0 High Level Business Requirements 5](#_Toc2331445)

[4.0 Detailed Business Requirements 5](#_Toc2331446)

[4.1 Functional Requirements 5](#_Toc2331447)

[5.0 References 9](#_Toc2331448)

[5.1 Table 1.0 9](#_Toc2331449)

[5.2 Table 2.0 9](#_Toc2331450)

[5.3 Table 3.0 9](#_Toc2331451)

[5.4 Table 4.0 10](#_Toc2331452)

[5.1 Table 5.0 10](#_Toc2331453)

[6.0 Terms and conditions 10](#_Toc2331454)

# 1.0 Introduction

## 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.

## Project Overview

### 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.

## Intended Audience

* All members of the project.
* Delivery assurance/excellence group

# Process Architecture

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

Registration/Login Page

Sharing experience of donating blood

Checking availability of

blood of a particular type

Donation of blood after filling in required details

Posting of blood requirement in case blood is not available

# 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 when there is a requirement. | If mail/message option is not possible due to access issues, make sure that admin can view the list with minimum details |

# Detailed Business Requirements

## 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\_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\_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 |  |

# References

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

## 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 |

## 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 |  |

## 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 |  |

## 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 |  |

## 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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