Content

Title: HemoConnect

(Linking Lives, Saving Souls)

1. Introduction:

      HemoConnect is an innovative desktop application developed to streamline blood bank management processes with efficiency and precision. In Sprint 1 of our implementation, we embarked on establishing the core functionalities of our blood bank management system. Our focus revolved around enabling secure user authentication, efficient donor and inventory management, precise blood type matching for transfusions, seamless communication, and robust notification systems. Through structured specifications and adherence to non-functional requirements, we strived to ensure the reliability, security, performance, and usability of our system. This sprint served as a pivotal step towards building a comprehensive solution that addresses the critical needs of blood banks and healthcare facilities, laying the groundwork for subsequent iterations aimed at further enriching our application's features and user experience.

2. Sprint Backlog:

2.1 Modules

- User Authentication
- Donor Management

2.2 User Stories

Title:	Priority:	Estimate:
2.2.1 User Authentication	High	3 pts
As a user, **I want to** securely log in to the system with my username and password, **So that I can** access sensitive information and perform authorized actions.		
Acceptance criteria: **Given** I am on login page, **When** I enter correct username and password, **Then** I should be directed to the system dashboard.		

Acceptance criteria:
Given I am on login page,
When I enter incorrect username and password,
Then I should receive an error message indicating the incorrect credentials.

Acceptance criteria:
Given I am logged in,
When I navigate away from the system or close the app,
Then I should be automatically logged out for security purposes.

Title: 2.2.2 Donor Registration	Priority: High	Estimate: 7 pts
As a user, **I want to** register as a new donor easily and efficiently, **So** **that I can** expand our donor pool and save lives.		
Acceptance criteria: **Given** I am on donor registration page, **When** I fill out all required fields with accurate information, **Then** a new donor profile should be created in the system.		
Acceptance criteria: **Given** I am viewing a donor profile, **When** I edit the donor's contact information, **Then** the changes should be saved and reflected in the donor's profile.		
Acceptance criteria: **Given** I am viewing a donor's donation history, **When** I click on a specific donation record, **Then** I should see detailed information about that donation.		

2.3 Structured Specifications

User Story   Donor Management

Function	2.3.1 Register New Donor Profile

Description	Allows users to register as new donors, facilitating the expansion of the donor pool and potentially saving lives easily and efficiently
Inputs	Required fields with accurate information (e.g., name, contact information, medical history)
Source	Donor registration page
Outputs	New donor profile created in the system
Destination	System database
Action	When all required fields are filled with accurate information, a new donor profile is created in the system
Requirements	All required fields must be filled with accurate information to successfully create a new donor profile.
Pre-Condition	User must be on the donor registration page
Post-Condition	A new donor profile is added to the system
Side Effects	None

Function	**2.3.2** Edit Donor's contact information
Description	Allows users to edit the contact information of a donor, ensuring that the changes are saved and reflected accurately in the donor's profile
Inputs	Edited contact information (e.g., phone number, email address)
Source	Donor's profile
Outputs	Changes in contact information saved and reflected in the donor's profile
Destination	System database

Action	When the user edits the donor's contact information, the changes are saved and updated in the donor's profile
Requirements	The changes made to the contact information must be saved and reflected accurately in the donor's profile
Pre-Condition	User must be viewing the donor's profile
Post-Condition	Changes in contact information are saved and updated in the donor's profile
Side Effects	None

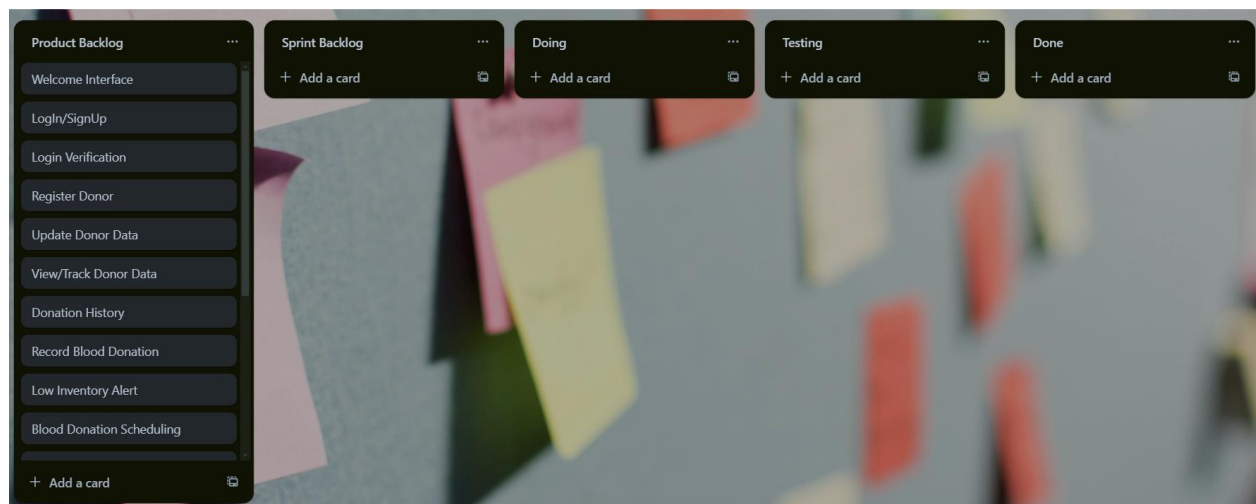| Function	**2.3.3** View donor's donation history
Description	Allows users to view the donation history of a donor and access detailed information about specific donation records
Inputs	Click on a specific donation record
Source	Donor's donation history
Outputs	Detailed information about the selected donation record
Destination	User interface
Action	When the user clicks on a specific donation record in the donor's donation history, detailed information about that donation is displayed
Requirements	The system must provide detailed information about specific donation records upon user request

Pre-Condition	User must be viewing a donor's donation history
Post-Condition	Detailed information about the selected donation record is displayed
Side Effects	None

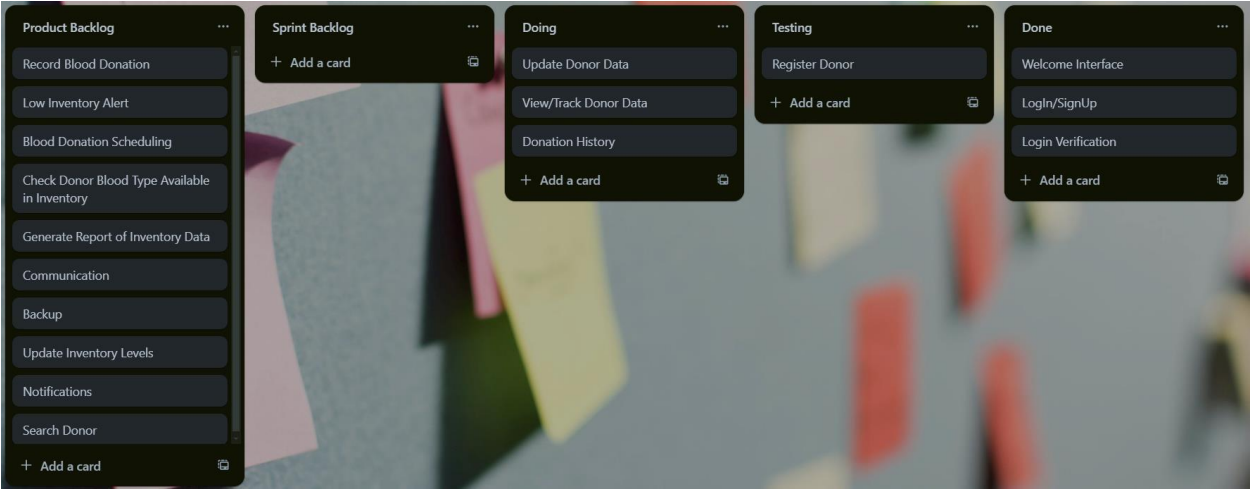| Function	**2.3.4** View Donor's Data
Description	This function enables users to access and view the detailed information of a specific donor.
Inputs	Click on a specific donation record within the donor list.
Source	Donor database
Outputs	Detailed information about the selected donor record.
Destination	User interface for display
Action	Upon the user's interaction with a specific donor's record the system retrieves and presents detailed information about that donor
Requirements	The system must furnish comprehensive details about specific donor records as per user requests
Pre-Condition	User must navigate to the donor list section

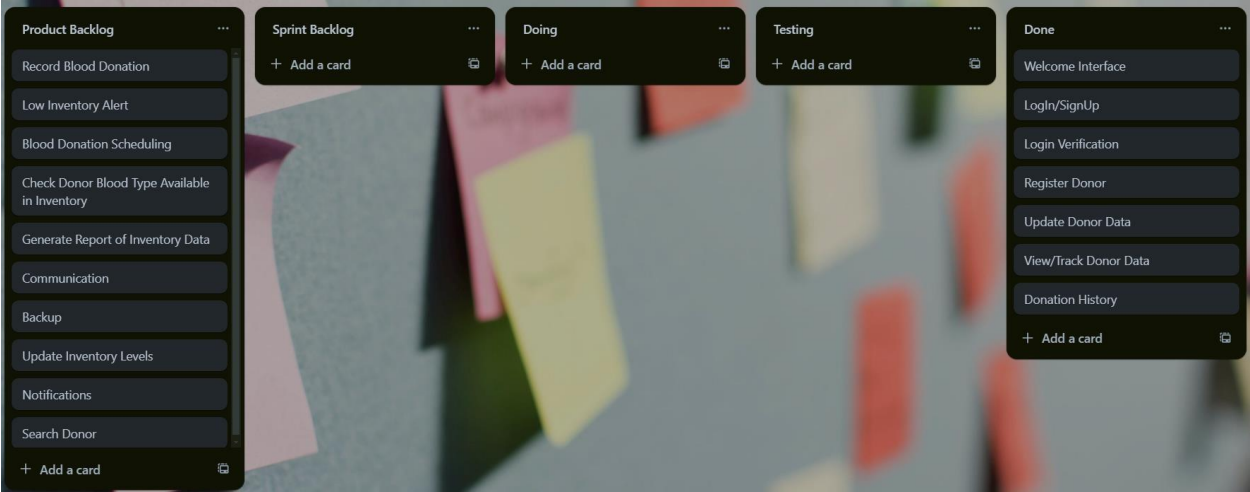| Post-Condition	Detailed information about the selected donor record is promptly displayed to the user
Side Effects	None

3. Scrum Board:

3.1 Beginning

3.2 Middle

3.3 End

3.4 Burndown Chart

Ideal Burndown ——— Actual Burndown ———
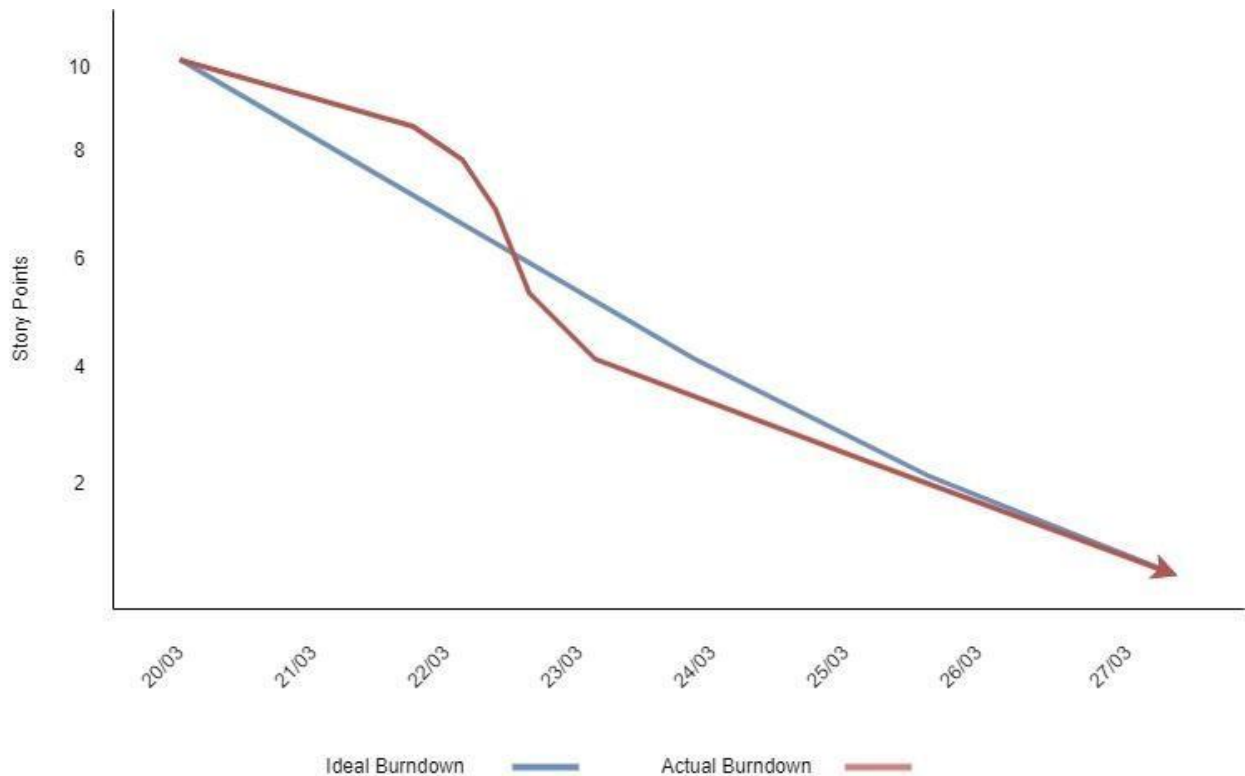
4. Non-Functional Requirement Specifications:

Title 4.1 Secure Authentication Mechanism	Requirement ID NFR1
Description	The system shall enforce a secure authentication mechanism to verify the identity of users before granting access to the application. This mechanism shall include usernamepassword authentication.
Rationale	This requirement is necessary to prevent unauthorized access to sensitive data stored within the blood bank management system. By enforcing secure authentication mechanisms, the system can mitigate the risk of unauthorized individuals gaining access to donor records, inventory information, and other confidential data.

Title	Requirement ID NFR2
4.2 High Availability	
Description	The system should maintain high availability aiming for a target uptime of 99%. This ensures that blood bank operations remain uninterrupted during regular working hours, minimizing downtime and ensuring continuous access to critical functionalities.
Rationale	High availability is crucial for the smooth operation of blood bank management system. Downtime can disrupt critical processes such as donor management system and inventory tracking, impacting the efficiency of blood bank operations and potentially delaying life-saving procedures. Ensuring a high level of availability helps maintain continuity of services and enhances user satisfaction.

Title	Requirement ID NFR3
4.3 Intuitive User Interface	
Description	The user interface should be intuitive and user-friendly, adhering to established usability principles. It should feature clear navigation, consistent layout, and intuitive controls to facilitate easy adoption and usage by layman.
Rationale	An intuitive user interface is essential for ensuring user satisfaction and productivity. By providing a user-friendly interface, the system can reduce the learning curve for users. This enhances user satisfaction and promotes user acceptance, contributing to the success of the blood bank management system.

5. Work Division:

Name	Role
Amal Usman	UI/UX Designer
	Quality Assurance
Fizza Awan	Project Manager
	Frontend Developer
Maryam Qureshi	Backend Developer
	Architect
Rumaisaa Rizwan	Lead Developer
	Requirement Engineer

6. Implementation for Sprint 1: