Use Case ID: BDO-001

Use Case Name: Blood Drive Organization

Scope: Blood Donation App

Level: User Goal

Primary Actor: Blood Drive Organizer

Stakeholders and Interests:

Blood Drive Organizer: Interested in efficiently organizing blood drives.

Blood Donors: Interested in participating in blood drive events.

Community Members: Interested in supporting and promoting blood donation events.

Preconditions:

The blood donation app is operational.

The blood drive organizer has appropriate permissions/access.

Success Guarantee (Post Conditions):

Blood drive events are successfully organized through the app.

Participants are registered for the blood drive.

The app supports promotional activities for the events.

Main Success Scenario (two-column format):

|  |  |
| --- | --- |
| **Actor Action** | **System Response** |
| Blood drive organizer accesses the app. |  |
| Organizer selects the option to organize a blood drive event. | System provides tools for organizing blood drive events. |
|  |  |
| Organizer fills in event details. |  |
| Organizer submits the event information. |  |
|  | System enables registration for blood drive participants. |
|  | System provides support for promotional activities. |

Extensions:

3a. If the blood drive organizer does not have permission to organize events:

System denies access and notifies the organizer.

Ends use case.

6a. If registration fails:

System prompts the organizer to check information and try again.

Returns to step 4.

Special Requirements:

The app interface should be user-friendly for organizers.

Support for promotional activities should include tools for social media sharing and event marketing.

Technology and Data Variations List:

Integration with calendar and notification systems for event reminders.

Secure storage of event and participant data.

Frequency of Occurrence:

Dependent on the frequency of blood drive events organized by users.

Open Issues:

Ensuring compliance with local regulations for organizing blood donation events.

Handling potential technical issues during event organization, such as server downtime.

Use Case ID: EA-001

Use Case Name: Emergency Alerts

Scope: Blood Donation System

Level: User Goal

Primary Actor: System

Stakeholders and Interests:

Blood Donation System Administrators: Interested in efficiently alerting users of urgent blood needs.

Blood Donors: Interested in receiving alerts for urgent blood needs in their area.

Healthcare Facilities: Interested in quickly finding matching blood donors for emergency situations.

Preconditions:

The Blood Donation System is operational.

Users have opted to receive emergency alerts.

Success Guarantee (Post Conditions):

Users receive timely alerts for urgent blood needs in their area.

Donors are notified if matching blood is needed urgently.

All registered users receive notifications of urgent blood requests.

Main Success Scenario (two-column format):

|  |  |
| --- | --- |
| **Actor Action** | **System Response** |
| User subscribes to emergency alerts. | System enables subscription to emergency alerts. |
| System identifies urgent blood needs. |  |
| System sends alerts to matching donors. | System sends alerts to donors if matching blood is needed urgently. |
| System sends notifications to all users. | System sends notifications to all registered users of urgent blood requests. |

Extensions:

2a. If the user chooses not to subscribe to emergency alerts:

System does not enable subscription.

Ends use case.

5a. If there are no matching donors available:

System continues to search for potential donors.

Ends use case.

Special Requirements:

The system should have access to real-time data on blood needs and donor availability.

Notifications should be sent promptly to ensure timely response.

Technology and Data Variations List:

Integration with geographical data to target alerts to specific areas.

Secure transmission of sensitive information regarding urgent blood needs.

Frequency of Occurrence:

Dependent on the occurrence of urgent blood needs in the system's coverage area.

Open Issues:

Ensuring the accuracy and reliability of alert notifications.

Addressing potential concerns regarding user privacy and data security.

Use Case ID: SBC-001

Use Case Name: Separate Blood Components

Scope: Blood Bank Management System

Level: User Goal

Primary Actor: System User (Blood Bank Staff)

Stakeholders and Interests:

Blood Bank Staff: Interested in efficiently managing blood components inventory.

Healthcare Providers: Interested in accessing specific blood components for medical procedures.

Preconditions:

The Blood Bank Management System is operational.

Sufficient whole blood units are available for separation.

Users have appropriate permissions to access the separation function.

Success Guarantee (Post Conditions):

Selected blood components are successfully separated from whole blood units.

The inventory is updated to reflect the availability of the separated components.

Main Success Scenario (two-column format):

|  |  |
| --- | --- |
| **Actor Action** | **System Response** |
| User selects blood components for separation. | System validates the selection and availability of whole blood units. |
| User confirms the separation. | System separates the selected components from whole blood units. |
|  | System updates the inventory with the availability of separated components. |

Extensions:

2a. If the selected components are not available in sufficient quantity:

System notifies the user and prompts to select alternative components or wait for restocking.

Ends use case.

Special Requirements:

The system should accurately track the inventory of blood components.

Separation process should adhere to safety and quality standards.

Technology and Data Variations List:

Integration with barcode scanning technology for efficient tracking of blood units and components.

Secure storage of inventory data to prevent unauthorized access.

Frequency of Occurrence:

Dependent on the demand for specific blood components and availability of whole blood units for separation.

Open Issues:

Ensuring staff training on proper separation techniques.

Addressing potential concerns regarding errors in inventory updates.

Use Case ID: DLP-001

Use Case Name: Donor Loyalty Program

Scope: Blood Donation System

Level: User Goal

Primary Actor: System Administrator

Stakeholders and Interests:

System Administrators: Interested in implementing and managing donor loyalty programs.

Blood Donors: Interested in receiving rewards and benefits for their frequent donations.

Preconditions:

The Blood Donation System is operational.

Eligibility criteria for the donor loyalty program are defined.

Users have opted to participate in the loyalty program.

Success Guarantee (Post Conditions):

Eligible users are successfully enrolled in the donor loyalty program.

Frequent donors receive rewards and benefits as part of the loyalty program.

Main Success Scenario (two-column format):

|  |  |
| --- | --- |
| **Actor Action** | **System Response** |
| System identifies users eligible for the program. | System enrolls eligible users in the donor loyalty program. |
| System offers rewards to frequent donors. | System provides rewards and benefits to frequent donors. |

Extensions:

2a. If there are no eligible users:

System notifies administrators and prompts to review eligibility criteria.

Ends use case.

4a. If rewards cannot be provided due to system error:

System logs the error for investigation.

Ends use case.

Special Requirements:

The loyalty program should be designed to incentivize regular blood donations.

Rewards should be attractive to encourage donor participation.

Technology and Data Variations List:

Integration with user profiles to track donation frequency and eligibility.

Secure storage of user data and rewards information.

Frequency of Occurrence:

Dependent on the frequency of donor eligibility evaluations and reward distributions.

Open Issues:

Designing an effective rewards system that motivates donors without excessive costs.

Ensuring transparency and fairness in reward distribution among donors.

Use Case ID: FRS-001

Use Case Name: Feedback & Rating System

Scope: Blood Donation System

Level: User Goal

Primary Actor: Donors and Recipients

Stakeholders and Interests:

Blood Donation System Administrators: Interested in gathering feedback to improve services.

Blood Donors and Recipients: Interested in providing feedback to enhance the donation process.

Preconditions:

The Blood Donation System is operational.

Donors and recipients have completed the donation process.

Success Guarantee (Post Conditions):

Feedback from donors and recipients is collected and stored in the system.

A rating system is implemented to quantify user satisfaction levels.

Main Success Scenario (two-column format):

|  |  |
| --- | --- |
| **Actor Action** | **System Response** |
| Donor or recipient accesses the feedback system. |  |
| Donor or recipient provides feedback on their experience. | System records the feedback provided by the donor or recipient. |
| Donor or recipient rates their experience. | System calculates and stores the rating for the experience. |

Extensions:

2a. If the feedback provided is incomplete or invalid:

System prompts the user to provide additional information.

Returns to step 2.

4a. If the user chooses not to rate their experience:

System proceeds without a rating.

Ends use case.

Special Requirements:

The feedback system should be user-friendly and accessible.

Ratings should be based on specific criteria relevant to the donation process.

Technology and Data Variations List:

Integration with user accounts to ensure feedback authenticity.

Secure storage of feedback and rating data to maintain privacy.

Frequency of Occurrence:

Feedback collection occurs after each donation experience.

Open Issues:

Implementing mechanisms to address and act upon feedback effectively.

Preventing misuse of the feedback system for malicious purposes.