**1. Donation Request Management:**

- **Inputs**: Donor’s Information, Eligibility Feedback, Donation Date (from Donor).

- **Output**: Donation Schedule (to Donor), Donation Updates (to Blood Bank).

- Description: Manages the entire donation process from donor registration, capturing eligibility feedback, to scheduling donations. It ensures that the blood bank is updated post-donation to reflect changes in inventory.

**2. Blood Request Management:**

- **Inputs**: Blood Request (from Recipient), Blood Availability (from Blood Bank).

- **Outputs**: Blood Dispatch Details (to Recipient), Stock Update (to Blood Bank).

- **Description**: Handles requests for blood from recipients by checking against the inventory for availability and organizing the dispatch of blood to the recipient, as well as updating the inventory levels in the blood bank.

**3. Stock Update:**

- **Inputs**: Donation Updates (from Donation Request Management), Blood Dispatch Details

(from Blood Request Management).

- **Outputs**: Blood Inventory Levels (to Blood Bank).

- **Description**: Responsible for maintaining accurate records of blood stock levels by updating

the inventory after receiving donation updates and following blood dispatches.

**4. Slot Management:**

- **Inputs**: Slot Requests (from Donor and Hospital).

- **Outputs**: Slot Confirmations (to Donor and Hospital).

**- Description**: Manages the scheduling of blood donation slots. It takes in requests for

donation appointments and provides confirmations for the allocated slots.

**5. Hospital Interface:**

- **Inputs:** Request Slot, Confirm Slot (from Hospital).

- **Outputs**: Request Slot (to Slot Management), Confirm Slot (to Hospital).

- **Description**: Acts as a communication bridge between the hospital and the blood bank

system for managing slot requests and confirmations.

**6. Recipient Interface:**

- **Inputs**: Blood Request Form (from Recipient).

**- Outputs**: Blood Availability, Dispatch Notification, and ETA (to Recipient).

**- Description**: Provides an interface for recipients to submit their blood requests and receive

information on blood availability as well as estimated time of arrival for dispatched blood.