* **Collected End Users Purpose** (Medical Blood Donation (MBD) Team – Pediatric blood center personnels)
  + Managing MBD’s (Pre-donation Registration)- this information will allow the MBD team to prepare adequately for the scheduled MBD, in terms of supplies and personnel
  + Education: Provide information on why blood donation is important, especially for children in need by creating electronic posters and FAQ’s on voluntary blood donation including pre and post donation care.
  + Donation Tracking: Allow donors to track their donation history.
  + Contact & Location Information: Provide the hospital’s contact information (e-mail, and official cellular phone number) for easier communication.
  + Event Calendar: To show upcoming donation events and for new bookings (Booking Confirmation).
* Defined Roles
  + Donors (Agency employees/personnel)
  + Agency Account Manager
  + Agency Coordinators
  + Medical Blood Donation (MBD) Team
* Defined functional requirements.
  + Role - Donors

1. Blood Donation Registration: Allow people to register as blood donors.
2. Schedule a Donation

* Find a Donation Drive – Displays list/map of upcoming blood drives.
* Book an appointment – Select the found donation drives and choose available date/time.

1. Emergency Blood Request
2. Allow users to request blood.
3. Users can edit / cancel blood requests
4. Displays list of blood request and status of currently logged in user.
5. Notifications & Support → Alerts, Messages, and Help
   * Remind Me – Set reminders for next donation eligibility.
   * View Announcements – See announcements from organizers.
   * Send Inquiry – Opens a chat/email form.

* Role - Agency (Account Manager)
  1. Allow to register / request to manage blood drive hosting. This is for approval of the MBD Team. The credential used/registers in the form will create a user with a role agency account manager. Form inputs: organization details contact and account manager’s system credentials (email and password)
  2. View request who wants to be a coordinator for the agency blood hosting. This will be the coordinator assigned in the blood drives and who will manage blood drives in the system. Provide a dashboard for view , approve / reject request for coordinator access.
* Role – Agency (Coordinators)
  1. Allow to register/request for account access in the system. This will be for approval of the agency account manager (selected registered agency in the system). Form inputs: the coordinator’s contact and system credentials (email and password).
  2. Coordinators can create/publish/edit/delete blood drives events. Can have multiple schedule date/time and set maximum limit, so that the donor can choose their preferred time and available date of the scheduled date/time of the coordinators.
  3. View all donors within the agencies.
  4. View/Monitors agency’s donors donations history.
  5. View/Filters blood types of agency’s donors.
  6. View list blood requests/created by the donors.
  7. Can create/posts announcements for the agency’s donors
* Role – MBD Team

1. Emergency Blood Request
   * View request who wants to join blood drive hosting. (The agency who register / request to host a blood drive). Can approve/reject.
   * View/activate/deactivate account list of agencies.
   * View/monitor list, accept / reject blood drive events requested/created by the coordinators.
   * View all donors across agencies.
   * View/Monitors all donors donations history.
   * View/Filters blood types of donors.
   * View list, accept / reject blood requests/created by the donors.
   * Send Notifications – Alert all users for the MBD announcements. SMTP and On app notification.

* Role – All Users

1. Profile Management – allow users to update their profile and credentials.
2. Content Management System
   * Home: Overview of the Pediatric Blood Center and its mission.
   * Why Donate: Educational content about pediatric blood donation.
   * Donate Blood: A page for users to learn how to donate and a form to register.
   * Upcoming Events: A calendar or list of upcoming blood donation drives.
   * Success Stories: Testimonials and stories from families who have benefited from blood donations.
   * Contact Us: Address, phone number, and email for inquiries.
   * FAQs – Common donor questions answered.
   * Blood Donor Eligibility Requirements.
   * Introduce Blood Donors Mobile App – publish .apk for them to download.

* PENDING REQUIREMENTS - DATA GATHERING / EXCEPTIONS
* REPORTS
* HOW TO HANDLE ON PREMISE/WALK IN DONORS WITHOUT AGENCIES.
* Mobile Application

**B. Technical Requirements**

📌 **Platform**: Web-based/Mobile application

* TOOLS/APPLICATION:
  + IDE: VSCode
  + DB GUI: MySQL Workbench
  + Wireframing: Balsamiq
  + API Testing: Postman
  + Collaboration Tool:
    - Click Up: Real-time notifications.
    - Documentation: Shared Google Sheets (Timeline & Requirements)
* DATABASE: MySQL
* DEVELOPMENT TOOLS: LIBRARIES & LANGUAGE
  + Language: Javascript, SQL
  + Back-end:
    - Libraries: Express (API endpoint), Sequelize (DB ORM)
  + Front-end:
    - Libraries: ReactJs, React-Native(Mobile), TailwindCSS, NativeWind(Mobile)
    - Framework: NextJs, Expo (Mobile Development).
  + Run-time Environment: NodeJs(Development Server)
  + Content Management System: (optional) Wordpress
  + Security:
    - Authorization (API access): Json Web Tokens (jwt)
    - Authentication (Proctected routes): PassportJS
    - Access Control Method: Role-Based Access Control (RBAC)
    - SSL Encryption: TBD
* IaC
  + **Hosting/Server**: TBD (On-premise or Cloud Based)