Guidelines

- Kindly use the given template for submitting your project (Make a copy of the template)
- One team is only required to submit one project.
- The ideal size of the presentation should not be more than 10 slides.
- You are welcome to add as many POCs and design concepts to support your project.
- The project should be feasible and the team members should be capable enough, to come up with the prototype of the same idea, if required.
- Projects using Google developer technologies like Gemini APIs & building projects on IDX platform will earn additional points.
- In case of queries, kindly reach out to us at solutionchallengesupport@hack2skill.com

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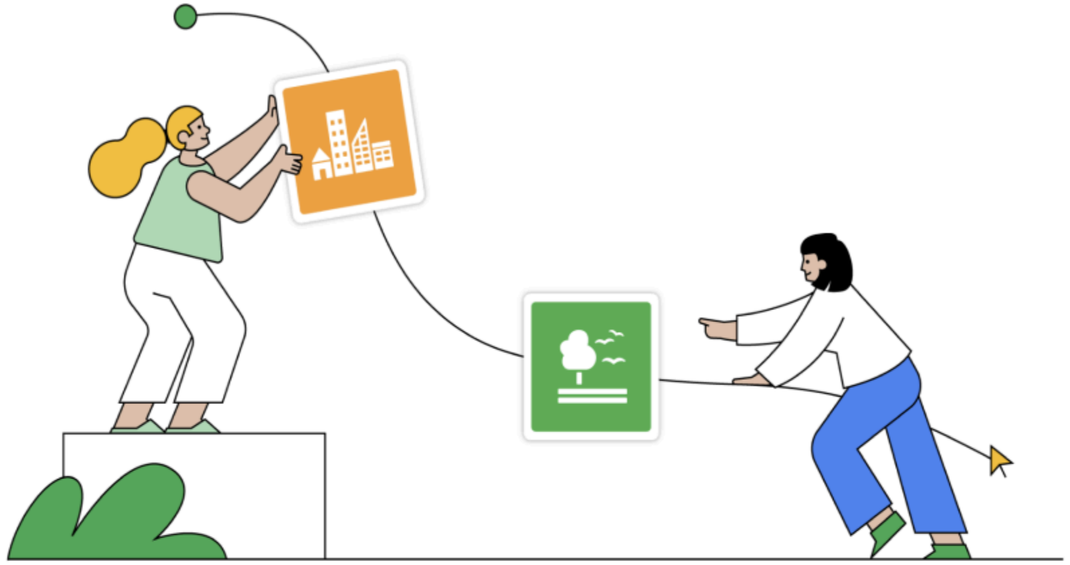

Team Details

a. **Team name: Aarambh**
b. **Team leader name: Sarthak Parkale**
c. **Problem Statement: SDG-3:** Good Health and Well-Being. Lack of timely vaccinations and blood access hinders progress toward SDG

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Brief about your Solution

-To tackle the challenges of missed vaccinations and delays in accessing blood during emergencies, we propose LifeLink. A digital healthcare platform that enables efficient vaccination schedule tracking and a real-time blood donation network.

-LifeLink ensures individuals and families stay up-to-date with their immunization schedules through timely reminders and an easy-to-use tracking system. Simultaneously, it connects blood donors, patients, and hospitals in one ecosystem to streamline the process of blood requests and donations, reducing critical response time in both emergency and non-emergency situations.1

-By integrating these two essential services into a single platform, LifeLink aims to enhance public health management and save lives through timely intervention and improved accessibility

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Q.How different is it from any of the other existing ideas?

Q1: How can LifeLink become more connected with users' daily health tools?

🔹 A1: Mobile Health Integration

- Syncs with Apple Health / Google Fit
- Auto-imports medical records and vaccination data
- Real-time updates and personalized reminders
- Enhances user convenience and accuracy.

Q2: How does LifeLink support and motivate blood donors?

🔹 A2: Donor Monitoring & Feedback

- Tracks donor vitals like BP, hemoglobin, and pulse
- Provides motivational feedback like:
  - “You’ve saved 6 lives”
  - “3 donations in 6 months”
- Encourages repeat donations and healthy practices

Q3: How does LifeLink handle rare blood type scenarios?

🔹 A3: Rare Blood Type Priority & Registry

- Issues prioritized alerts during critical emergencies
- Instantly notifies matching donors for quick response

How will it be able to solve the problem?

LifeLink addresses critical challenges in the blood donation ecosystem and broader healthcare support systems:

- **Bridging Gaps in Blood Availability:** By offering location-based donor-patient matching, LifeLink ensures that hospitals can access a pool of donors in real time during emergencies or regular needs. This reduces the reliance on outdated manual systems.
- **Simplifying Blood Donation Processes:** LifeLink's user-friendly platform encourages participation by streamlining donor qualifications and reminders, removing barriers that discourage regular donations.
- **Promoting Vaccination Adherence:** With vaccination trackers and personalized reminders, LifeLink helps users adhere to vaccination schedules, improving community immunity.
- **Handling Rare Blood Types:** The solution prioritizes notifications for rare blood type donors, ensuring efficient response during critical emergencies.
- **Ensuring Donor Health:** By monitoring donor vitals and setting donation frequency limits, LifeLink promotes safe donation practices without compromising donor well-being.

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USP of the proposed solution

1**)Dual Connectivity for Critical Needs**: Uniting individuals, hospitals, and blood banks into a seamless network to fulfill blood donation requests promptly.

2)**Personalized Health Integration**: Synchronization with platforms like Apple Health or Google Fit allows real-time updates, medical record imports, and tailored health recommendations.

3)**End-to-End Transparency**: Verification processes for donor and hospital profiles ensure credibility, making users trust the platform.

4)**Rare Blood Type Registry**: A prioritized mechanism for critical blood type scenarios demonstrates the focus on solving edge cases.

5)**Empathetic Engagement**: Features like motivational feedback and awareness resources not only encourage repeat donations but also make users feel valued.

6)**Future-Ready Development**: Beyond blood donations, the platform’s vision for organ donation integration demonstrates its scalable impact on sustainable healthcare.

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List of features offered by the solution

1. Donor-Patient Matching:
- Location-based matching for emergency and non-emergency needs.
- Dynamic search radius adjustment for broader outreach.

2. Vaccination Management:
- Trackers and reminders for vaccination schedules.
- Auto-sync with mobile health apps for seamless updates.

3. Comprehensive User Profiles:
- Includes medical history and donation criteria validation.
- AI-driven eligibility checks to ensure appropriate matches.

4. Real-Time Alerts:
- Demand-based notifications for emergencies.
- Optional communication permissions and in-app chat systems.

5. Hospital & Blood Bank Integration:
- Profiles enabling blood requests with proof verification.
- Direct communication channels for efficient coordination.

List Of Features Continues....

6. **Rare Blood Type Registry:**
   - Specialized alerts for rare donors during emergencies.
   - Registers rare donors for future prioritized needs.
7. **Safety & Awareness Features:**
   - Post-donation guidance and awareness resources.
   - Symptom monitoring and emergency guidance.
8. **Gamification & Motivation(Future Scope):**
   - Feedback on lives saved and donation frequency milestones.
   - Encourages repeat donations with positive reinforcement.
9. **AI Integration (Future Scope):**
   - Chat-based assistance for guidance and quick information.
10. **Future Expansion:**
    - Planned integration with organ donation processes.

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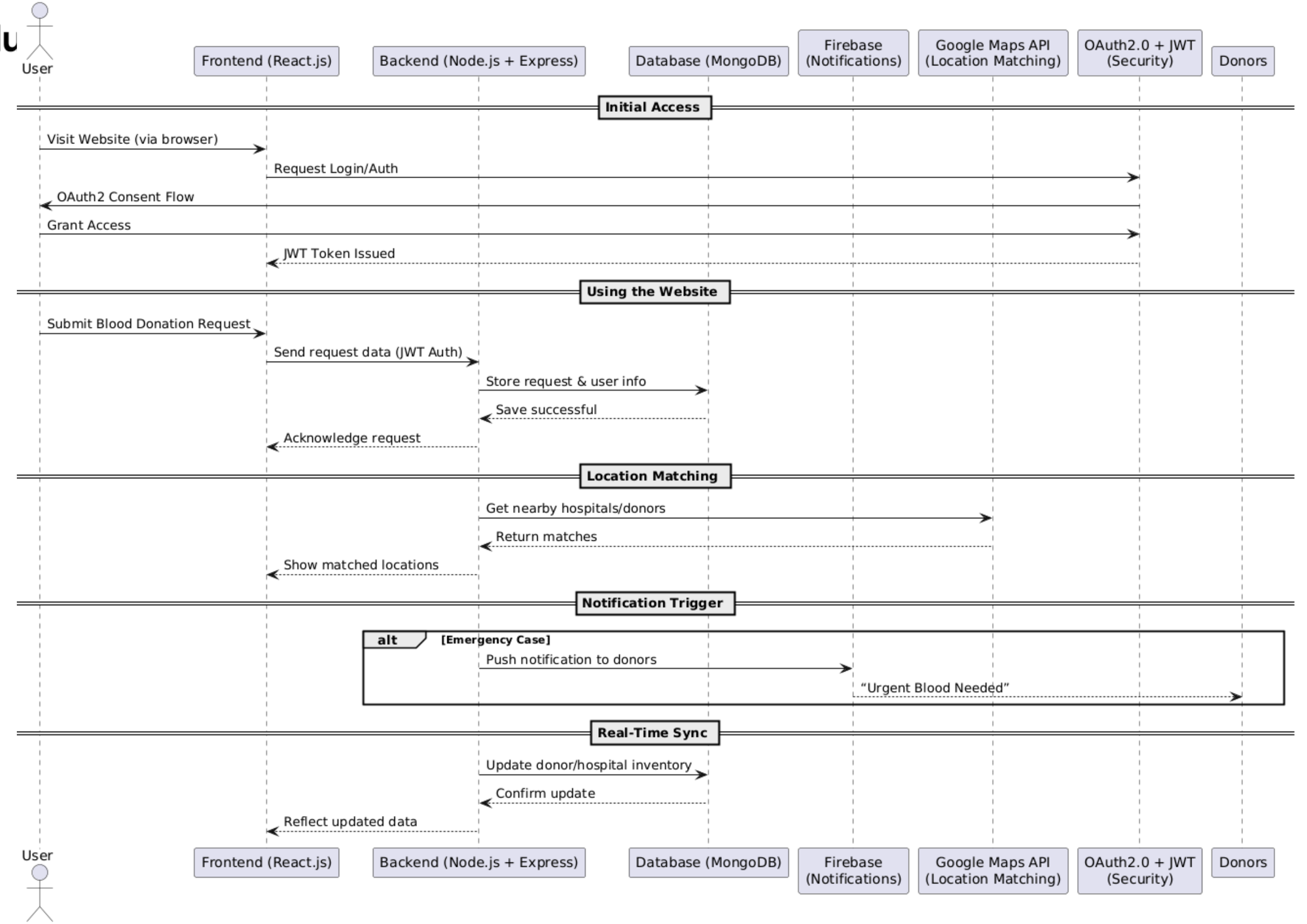

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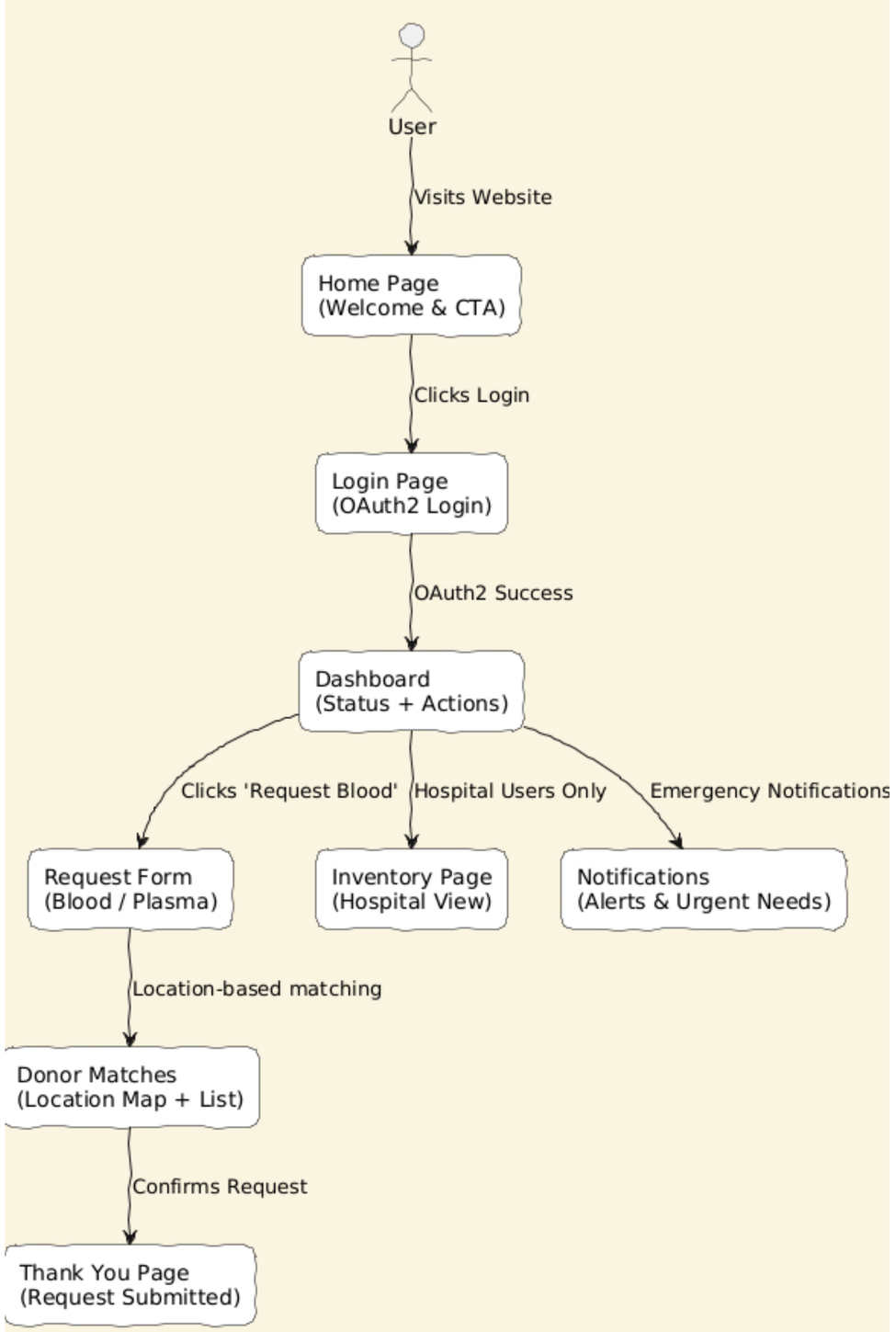
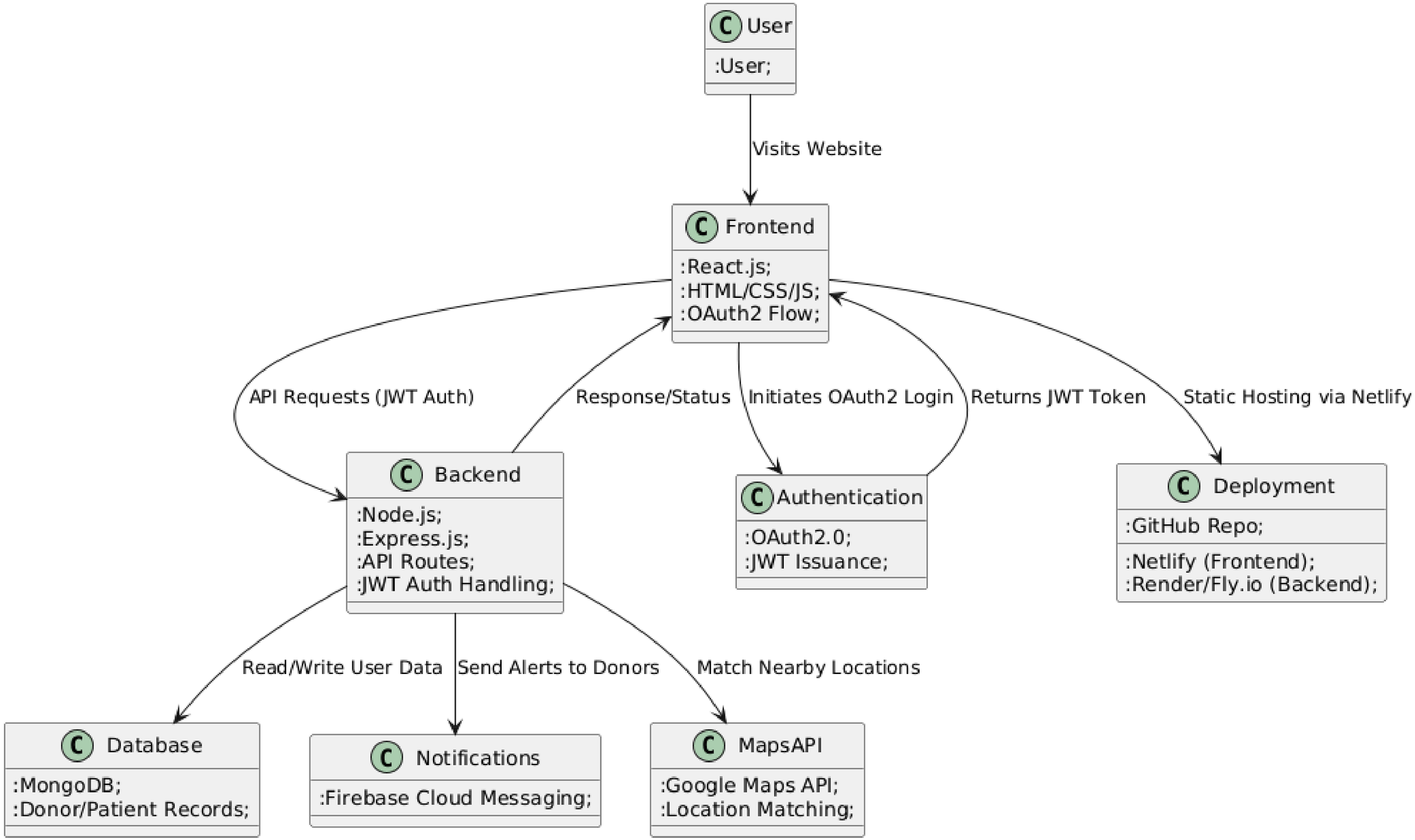


Life Link - System Architecture Diagram



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Technologies to be used in the solution

1. **Frontend:** React Native (for cross-platform mobile app)
2. **Backend:** Node.js with Express.js (for handling API requests)
3. **Location Services:** Google Maps API (for finding nearby donars and hospitals)
4. **Authentication:** Firebase Auth / OAuth (for secure user login)
5. **Cloud Hosting:** Google Cloud / AWS (for scalability and reliability)
6. **Database:** Firebase/MongoDB (for secure and scalable data storage)
7. **Real-Time Matching:** WebSockets / Firebase Realtime Database (for instant donor-patient connections)
8. **Push Notifications:** Firebase Cloud Messaging (for emergency alerts)
9. **AI & Matching Algorithms:** TensorFlow.js / OpenAI API (for smart donor-recipient matching)
10. **Blockchain (future):** Ethereum / Hyperledger (for secure organ donation tracking)

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Additional Details/Future Development (if any)

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Provide links to your:

1. GitHub Public Repository:

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Thank you