

## 🌟 Vision & Purpose

Materna AI is not just another pregnancy tracker. It's a **smart, multilingual, culturally-aligned maternal health companion** built to support **expectant mothers**—particularly in **African and diaspora communities**—with **AI-powered personalization, real-time tracking, emotional support, emergency readiness**, and a **human-centered approach to technology**.

It serves as a **bridge between medical guidance and day-to-day maternal needs**, empowering users with real-time insights, proactive recommendations, and emotional affirmation throughout the pregnancy journey.

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## 🔑 Flagship Capabilities & User Benefits

### 🤖 AI Assistant & Q&A Engine

- Personalized, medically-informed responses tailored to the **pregnancy stage** and **local language** (English/Kiswahili).
- Features like **voice interaction** and **AI avatar videos** promote accessibility and emotional connection.
- AI models can distinguish between a casual concern and a potential medical issue, giving actionable insights and emergency escalation when needed.

- Supports dynamic content refresh, note saving, and bilingual delivery, ensuring users are engaged and informed each day.

## **Affirmations & Mental Wellness**

- **AI-crafted daily affirmations**—text and voice—to support emotional well-being.
- Designed to reduce stress, promote mindfulness, and foster positivity.
- Perfect for first-time mothers or those managing anxiety or previous pregnancy trauma.

## **Emergency Toolkit**

- One-tap access to local hospitals, OB/GYNs, and ambulance services.
- Step-by-step emergency guidelines and symptom checklists.
- All content localized in both English and Kiswahili—critical in urgent scenarios.

## **Personal Notes & Journey Logs**

- Centralized notes hub with powerful organization features.
- Users can record symptoms, scan prescriptions, save favorite tips/affirmations, or journal their journey.

- 24/7 premium support and early warnings based on tracked symptoms
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## Robust Technical Infrastructure

### Architecture

- Built as a **mobile-first PWA**, ensuring smooth experiences across devices.
- Offers **offline access**, making it viable for areas with limited internet coverage.
- Backed by a secure **TypeScript + React + RESTful API** stack with real-time data synchronization.

### Security & Compliance

- **HIPAA-compliant** design with end-to-end encryption.
- Local storage and backup options, giving mothers full control of their medical data.

### Accessibility & Cultural Adaptation

- WCAG 2.1 AA accessibility compliance, screen reader support, and font controls.

- **Calendar/Wearables:** Integration to sync tasks, appointments, and health data.
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## **Target Audience & Market Fit**

### **Primary Users:**

- **Expectant mothers**, both first-time and experienced.
- **Partners and caregivers**, looking for proactive ways to support.
- **Healthcare professionals**, doulas, midwives, and community health workers.

### **Geographic Focus:**

- **East African core** (Kenya, Tanzania, Uganda) with English/Kiswahili support.
  - Designed for **diaspora use**—mothers in Western countries wanting African-based content.
  - Roadmap for localization to **West African languages** and **Francophone Africa**.
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## Future Vision

Materna AI could evolve into a **complete maternal ecosystem**, integrating:

- Postpartum care modules
- Vaccination reminders
- Pediatric development milestones
- Peer support forums
- Doctor/clinic booking systems
- Telehealth with certified OB/GYNs
- National health data insights for policy and NGO support
- Solution Link: <https://materna-ai.netlify.app/>
- Video Link: <https://vimeo.com/1101063546>
- Video Link 2: <https://vimeo.com/1097669087>

*members are from different institutions, please list all.)*

**7. List all team members (max 4), their roles, gender, and their respective institutions.**

**8. Is your team at least 80% women?**

Yes

No

**9. Solution/ Project Title**

**10. Describe your solution (What it does and who it helps and what problems it solves)**

**11. Which challenge area(s) does your solution address?**

Reproductive and Maternal Healthcare

Financial Inclusion for Women

Gender-Based Violence and Safety for Women

Education and Digital Skilling for Women

Access to Markets for Women-Led Businesses

Gender-Based Violence and Safety for Women

14. What makes your solution unique? - AI

15. Who are your target users, and how does it benefit African women or girls?

Please submit a working prototype, MVP, or demo to support your application.

This could include a link to your solution, GitHub repository, Figma design, mobile app test link, video walkthrough, or a PDF overview.

 **Note:** Applications without a valid prototype or demo will not be considered during vetting.

16. What format is your prototype or MVP in?

Web App

17. Provide a working link to your prototype or attach your demo below. This should be a live or shareable link (e.g. GitHub, Figma, test site, deployed app, Loom Video, YouTube demo)

*Please upload a 1-page PDF summary that includes your **solution's name**, **the problem it solves**, **key features**, **target audience**, **how it works**, **the technology behind it** (especially AI if used), **tech stack**, **the impact or outcomes you aim to achieve**, and a **table listing team members with their roles, gender, and institution**.*



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