

## 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

## 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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