Dhatree: Pregnancy Tracker App

Introduction

Dhatree (ধাত্রী)—meaning "the nourisher" or "mother"—is a supportive digital companion for mothers-to-be. The app guides expectant mothers from the very start of pregnancy, beginning with the last menstruation date, and continues with weekly tracking, personalized health tips, and live health updates. Dhatree empowers users to monitor both their own and their baby's health, receive reminders about checkups and tests, find nearby blood banks and hospitals, consult with doctors, and get nutrition and lifestyle advice. A unique diary feature lets mothers record their thoughts, feelings, and experiences every day, making pregnancy not just tracked—but cherished. AI-powered suggestions and emotional support make Dhatree more than an app: it's a caring partner throughout the pregnancy journey.

Scope

Dhatree is designed for pregnant women and their families, providing a comprehensive, easy-to-use platform for pregnancy care, health tracking, and emotional support. With features spanning health monitoring, doctor consultations, community resources, and daily journaling, Dhatree ensures mothers feel cared for, informed, and connected throughout their journey to motherhood.

Users and Their Role

User:

- Register and log in to access all app features.

- Track pregnancy progress starting from the last menstruation date.

- Receive timely health tips, reminders, and notifications about upcoming checkups and tests.

- Monitor and log their own and their baby's health status.

- Consult with doctors through the app (chat, video, or phone).

- View information about nearby hospitals and blood banks.

- Get daily nutrition, wellness, and lifestyle tips tailored to their needs.

- Use a personal **Diary** feature to write about their daily experiences, feelings, milestones, and questions—creating a pregnancy memory book.

- Enable daily checkup and receive supportive, AI-powered suggestions.

- Access helpful resources and a supportive community environment.

Use Cases of the System

- **Registration:**
  User creates an account and provides the date of their last menstruation; the system calculates the pregnancy timeline.

- **Pregnancy Tracking:**
  Users log health details and symptoms, visualize progress, and receive alerts if any values are concerning.

- **Reminders & Notifications:**
  Dhatree automatically sends reminders for doctor appointments, required tests, and important pregnancy milestones.

- **Doctor Consultation:**
  User can consult with a doctor for advice, share reports, and ask questions directly through the app.

- **Nearby Services:**
  The app shows users a map of nearby hospitals and blood banks for emergencies.

- **Diet & Wellness Tips:**
  The system provides customized diet, exercise, and wellness suggestions based on the user's pregnancy stage.

- **Diary Feature:**
  User can write daily notes, feelings, and experiences in a private diary. Over time, this

becomes a keepsake of the pregnancy journey.

- **AI Support:**
  When users share concerns or emotions, Dhatree's AI offers supportive messages and helpful suggestions.

Technology

- **Frontend:** React.js

- **Backend:** Spring Boot

- **Database:** PostgreSQL

- **CI/CD:** GitHub Actions

- **Deployment:** Docker & Azure Cloud

- **Build Tool:** Maven

Roles

- **User:**
  Has access to all features including health tracking, doctor consultation, notifications, diary, and AI support.