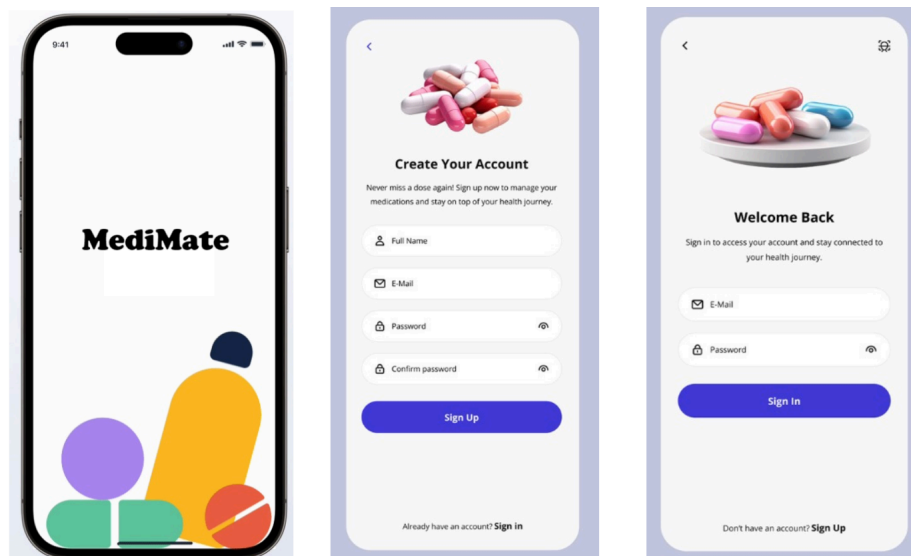


Medimate: Revolutionizing Patient Care through Personalized Treatment Management

Medimate is a comprehensive patient management platform designed to assist patients in managing their treatment plans, tracking progress, and staying on top of their medication regimen. The platform features an automated reminder system, progress tracking, an educational chatbot, symptom tracking, image storage, patient feedback collection, and the ability to store prescription details.



Features Overview

Medimate's features are designed to provide patients with a personalized treatment management experience. The platform includes automated treatment reminders, prescription photo extraction, progress tracking and history, an educational chatbot, image storage and monitoring, patient feedback and satisfaction surveys, and symptom tracking and self-assessment.

Medimate's automated reminder system sends patients reminder alerts for treatments based on their prescription's frequency. Patients can customize reminder times, confirm treatment completion, and snooze reminders if needed.

Feature	Description
Automated Treatment Reminders	Sends reminder alerts for treatments based on prescription frequency
Prescription Photo Extraction	Extracts key information from prescription photos using OCR technology
Progress Tracking and History	Displays treatment history and progress tracking for patients and clinicians
Educational Chatbot	Provides educational content and guidance on treatment and skincare

Table 1: Medimate's Key Features

Automated Treatment Reminders

- **Reminder Alerts:** Patients receive notifications for their treatments based on prescription frequency, ensuring they never miss a dose.
- **Customizable Reminder Times:** Users can set their preferred reminder times, tailored to their routine.
- **Reminder Confirmation:** After receiving a reminder, patients confirm whether they've completed the treatment, helping track adherence.
- **Snooze Function:** Allows patients to postpone reminders if needed, similar to an alarm.
- **Progress History:** Tracks and displays treatment history, showing completed and missed treatments for both patients and clinicians.

Prescription Photo Extraction

- **Prescription Image Parsing:** Using OCR (Optical Character Recognition) technology, the app extracts medication details like name, dosage, and frequency from prescription photos.
- **Auto-populated Reminders:** The app automatically sets reminders based on extracted prescription details.
- **User Review:** Patients can review and modify the extracted data before confirmation.

Progress Tracking and History

- **Treatment History Display:** A timeline showing past treatments, completed doses, and missed reminders.
- **Clinician View:** Enables healthcare providers to monitor patient adherence and make informed treatment decisions.

Educational Chatbot

- **Atopic Dermatitis FAQs:** Provides helpful content about symptoms, triggers, and care.
- **Medication Guidance:** Offers advice on the correct application of prescribed medications.
- **General Skincare Tips:** Responds to skincare queries, helping users maintain healthy routines.

Image Storage and Monitoring

- **Image Uploading:** Patients can upload images of affected areas to track skin progress over time.
- **Image Storage:** All images are securely stored and easily accessible for future comparison.
- **Comparison View:** Clinicians and patients can compare images to assess treatment effectiveness.

Patient Feedback & Satisfaction Surveys

- **Surveys:** Periodic feedback collection to assess patient satisfaction and treatment efficacy.
- **Customizable Questionnaires:** Tailor surveys based on patient needs.
- **Survey Analytics:** Analyzes responses to spot trends and areas for improvement.

Symptom Tracking and Self-Assessment

- **Quality of Life Assessments:** Includes tools like the Dermatology Life Quality Index (DLQI) to evaluate the patient's well-being.
- **Clinician Access:** Healthcare providers can review symptom data and adjust treatment plans as necessary.

Technical Requirements

Medimate's technical requirements include OCR technology for prescription photo parsing, a reminder system, and backend and database management.

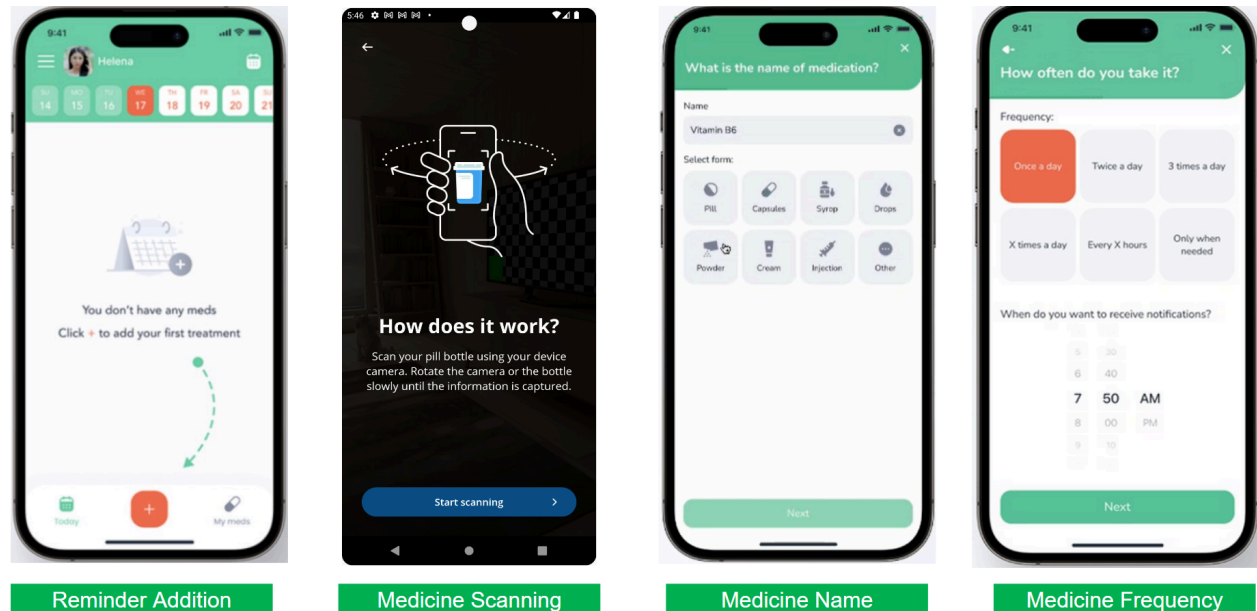


Figure 1: OCR Technology for Prescription Photo Parsing

Medimate utilizes OCR technology to extract key information from prescription photos, including medication name, dosage instructions, and frequency.

OCR Technology for Prescription Photo Parsing

- Uses OCR tools like Tesseract or Google Vision API to accurately extract text from prescription photos.
- **Data Validation:** Ensures accuracy by allowing users to edit any misinterpreted information.

Reminder System

- **Push Notifications:** For real-time alerts.
- **Snooze Feature:** Allows patients to delay reminders for a short period.

Backend and Database

- **Django Rest Framework:** To build RESTful APIs for smooth communication between the mobile app and backend.

- **Cloud Storage:** Secure storage solutions for images and patient data, such as AWS or Google Cloud.
- **Database Management:** Relational databases like PostgreSQL to store user profiles, treatment data, and symptoms.

User Roles and Permissions

Medimate has two primary user roles: patients and clinicians. Patients can create and manage their profiles, set treatment reminder settings, view and update treatment history, upload and view images, log symptoms, and submit feedback. Clinicians can access patient progress, monitor image uploads, adjust treatment plans, and review symptom data.

User Role	Permissions
Patient	Create and manage profile, set treatment reminder settings, view and update treatment history, upload and view images, log symptoms, submit feedback
Clinician	Access patient progress, monitor image uploads, adjust treatment plans, review symptom data

Table 2: User Roles and Permissions

User Interface Design (UI/UX)

Medimate's user interface is designed to be simple, intuitive, and easy to navigate. The patient interface features a dashboard displaying treatment progress, completed treatments, missed reminders, and symptom scores. The clinician interface includes a patient dashboard displaying treatment data, progress tracking, and symptom assessments.

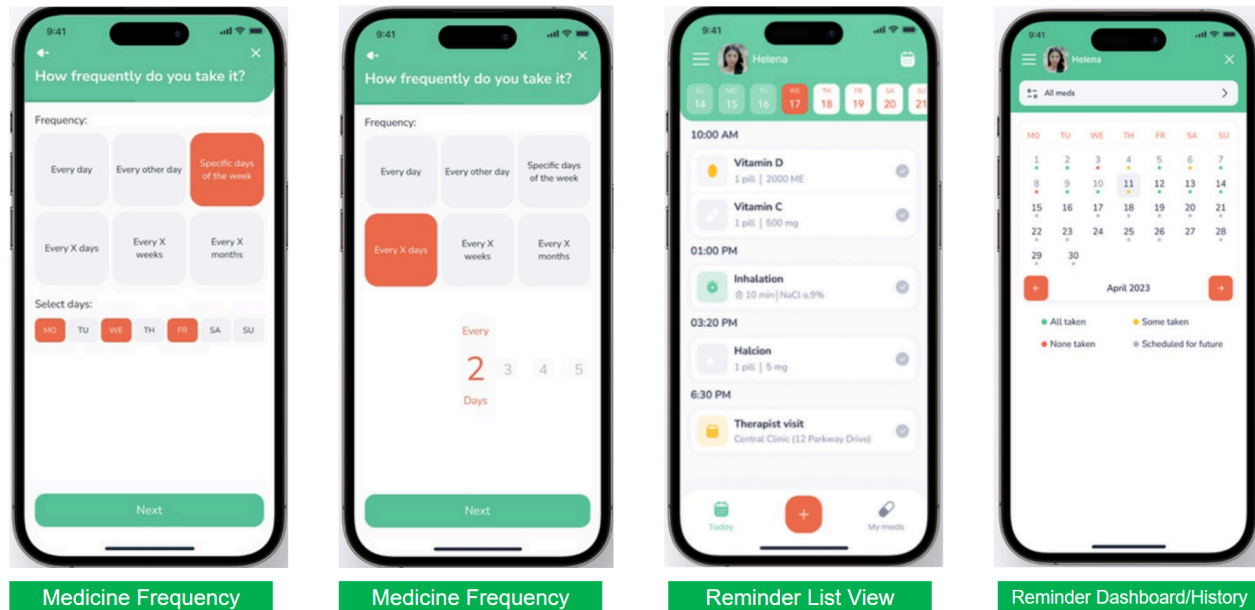


Figure 3: Medimate's Patient Interface

Medimate's patient interface is designed to be user-friendly, with clear icons and easy-to-use functionality.

Medimate's Impact on Patient Care

Medimate is a comprehensive patient management platform designed to provide patients with a personalized treatment management experience. With its automated reminder system, prescription photo extraction, progress tracking and history, educational chatbot, image storage and monitoring, patient feedback and satisfaction surveys, and symptom tracking and self-assessment, Medimate is revolutionizing patient care and treatment management.

By combining automated reminders, image tracking, educational support, and feedback systems, Medimate enhances patient engagement and communication with clinicians. Through real-time symptom tracking and data analysis, Medimate ensures that both patients and healthcare providers are well-equipped to make informed decisions, improving treatment outcomes and patient satisfaction.