

# RemindMeX

A feature-rich multi-timer mobile application built with React Native and Expo. Create, manage, and track multiple timers with persistent state, background notifications, and an intuitive mobile-first interface.

## Features

### ***Core Functionality***

- Multiple Timers: Create unlimited timers with custom labels and durations
- Full Timer Control: Start, pause, resume, reset, and delete timers
- Real-time Countdown: Live updates with accurate time tracking
- Background Support: Timers continue running when app is in background
- Local Notifications: Push notifications when timers complete, even when app is closed
- Persistent State: All timers automatically saved and restored between app sessions

### ***Enhanced Features***

- Recurring Timers: Set timers to repeat daily, weekly, or monthly
- Drag-to-Reorder: Organize timers by dragging and dropping
- Swipe-to-Delete: Quick gesture-based timer deletion
- Quick Presets: One-tap timer creation (5, 10, 15, 30 min, 1, 2 hours)
- Haptic Feedback: Tactile responses for all interactions
- Dark Mode: Full theme support with system preference detection
- Empty State: Helpful UI when no timers exist with permission prompts

## Getting Started

### ***Prerequisites***

- Node.js (v18 or higher)
- npm or yarn
- Expo CLI
- For iOS: macOS with Xcode
- For Android: Android Studio with SDK

### ***Installation***

- Clone the repository
- Install dependencies
- Start the development server
- Run on a device/emulator

1. Clone the repository

```
git clone https://github.com/yourusername/remindmex.git
cd remindmex
```
2. Install dependencies

```
npm install
```
3. Start development server

```
npm start
```

# Architecture & Design Decisions

## State Management

The app uses a custom hooks-based architecture rather than external state management libraries:

- useTimers Hook: Central timer management with local state
- React Context: Theme management with ThemeContext
- AsyncStorage: Persistent data layer for timer state

**\*\*Why this approach?\*\***

- Reduces bundle size and dependencies
- Provides fine-grained control over timer logic
- Eliminates complexity of Redux/MobX

## Timer Logic & Accuracy

Key Implementation Details:

1. Timers recalculate remaining time based on startedAt instead of just decrementing.
2. Benefits: prevents drift, stays accurate in background, handles system time changes.
3. App State Handling: Listens to AppState changes to recalc timers when returning foreground.

## Technical stack

Category	Technology	Purpose
Framework	React Native + Expo	Cross-platform development
Language	TypeScript	Type safety and DX
Routing	Expo Router	File-based routing
Styling	NativeWind	Tailwind CSS for React Native
Storage	AsyncStorage	Local persistence
Notifications	expo-notifications	Local push notifications
Gestures	react-native-gesture-handler	Local persistence
Animations	react-native-reanimated	Local push notifications
Haptics	expo-haptics	Smooth animations
		Tactile feedback