# Sleep Optimization Coach App Proposal

The Sleep Optimization Coach app is a comprehensive mobile application designed to help users enhance their sleep quality through personalized insights and actionable recommendations. By leveraging user-provided data and a simple, user-friendly interface, the app empowers individuals to establish healthier sleep habits and improve their overall well-being.

## Key Features

### Smart Alarm Clock

- Gradual wake-up sounds to align with the user’s natural sleep cycles.  
- Adjustable alarm settings to support varied schedules.

### Personalized Sleep Plans

- Tailored recommendations based on user-provided data such as bedtime, wake-up time, and lifestyle habits.  
- Guidance for creating consistent sleep schedules and improving bedtime routines.

### User Data Insights

- Collect basic sleep-related data from users (e.g., hours of sleep, bedtime habits).  
- Provide actionable advice and tips based on user input.

### Actionable Insights

- Daily and weekly summaries with advice for improving sleep hygiene.  
- Progress tracking to monitor changes in sleep habits over time.

## How It Works

1. \*\*Sign Up\*\*: Create an account using an email and password or sign in with Google.

2. \*\*Input Data\*\*: Provide simple details about your sleep schedule and habits.

3. \*\*Get Insights\*\*: View recommendations and tips based on your data.

4. \*\*Improve Sleep\*\*: Follow tailored plans to enhance sleep quality.

## Technical Overview

\*\*Frontend\*\*: Built using Kotlin for Android for a responsive user interface.

\*\*Backend\*\*: Firebase Authentication for secure login and Firestore for storing user-provided data.

\*\*Architecture\*\*: Jetpack Compose for a modern UI, with ViewModel and LiveData for managing user data and updates.

## Why Choose Sleep Optimization Coach?

The Sleep Optimization Coach app is tailored for anyone seeking to improve their sleep quality and overall health. By relying on simple user inputs instead of complex tracking, the app ensures ease of use and accessibility while still providing valuable insights. Its user-centric features, intuitive design, and actionable advice make it an ideal companion for building better sleep habits and enhancing daily energy levels.