

## ESP32 + RFID Habit Tracker App Plan

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### Core Idea

Use RFID cards + ESP32 to log habits by tapping. Data goes to Google Sheets + your app.

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### Feature List

#### Core Tracking

- Tap to Track (RFID triggers habit log)
- Check-in & Check-out for selected habits
- Real-time sync to Google Sheets
- Show active habit live
- Streak counter (per habit)



#### Visual Insights

- Heatmap Calendar view
- Weekly/Monthly summary dashboard
- Timeline of daily habit sessions
- Progress bars (goal-based: e.g. 2 hrs/day)
- Optional: Habit leaderboard (based on time)

#### Management & Control

- Card Manager (assign cards to habits)
  - Habit Settings (enable/disable check-out)
  - Daily/Weekly time goals per habit
  - Offline log + auto sync on reconnect
  - Idle reminder (e.g., no card tap in 2 hours)
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### UI/UX Design (iOS-inspired)

#### General Style

- Glassmorphism: Translucent cards with blur
- Minimal icons, rounded corners
- Smooth transitions, subtle haptics (if supported)
- Fonts: SF Pro or clean modern sans

## Home Screen

- Top: Greeting + current date
- Center: **Current Status Card** (shows active habit or "Idle")
- Below: Quick log overview (Today: X hrs studied, etc.)
- Bottom Nav: [Dashboard] [Log] [Cards] [Settings]

## Dashboard Tab

- Heat map Calendar
- Weekly Bar Graph (time per habit)
- Streak Counter Chips

## Log Tab

- Scrollable timeline of logs (Check-in/out with timestamps)
- Filter by habit/date

## Cards Tab

- List of registered cards
- Each with: Assigned habit, Color, Edit/Delete
- Button to scan & add new card

## Settings Tab

- Google Sheets link/setup
- Habit goal setup
- Check-out enable toggle
- Notification preferences
- Export to CSV

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