

Product Requirements Document (PRD) - Activity Tracker - v1.1

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1. Executive Summary
2. Changes from v1.0 to v1.1
 - 2.1 Major UI/UX Improvements
 - 2.2 New Features
3. Updated Core Features
 - 3.1 Enhanced Dashboard (Main Screen)
 - Visual Design
 - Interaction Behavior
 - 3.2 Enhanced Add Activity Flow
 - Screen Layout
 - Updated Categories
 - New Features
 - 3.3 Enhanced Activity Detail View
 - Screen Layout
 - iOS Calendar Integration
 - Activity Info Section
 - 3.4 Enhanced Widget Specifications (v1.1)
 - Widget Design (Small Widget)
 - Enhanced Widget Behavior
 - Widget Configuration
 - Widget Data Management
4. Technical Implementation Updates
 - 4.1 New Data Model Changes
 - Activity Entity Updates
 - Completion Entity (No Changes)
 - 4.2 New iOS Integrations

- Native Calendar Implementation
 - Emoji Picker Integration
 - 4.3 Updated Business Logic
 - "Days Since" Calculation Logic
 - Bulk Completion Entry
- 5. Updated User Experience Flow
 - 5.1 Enhanced First-Time Setup
 - 5.2 Enhanced Daily Usage Flow
 - 5.3 Activity Management Flow
- 6. Implementation Priority Order
 - 6.1 Phase 1: Core UI Updates (Easy)
 - 6.2 Phase 2: Widget Enhancement (Medium)
 - 6.3 Phase 3: Emoji Integration (Medium)
 - 6.4 Phase 4: Calendar Features (Medium-Complex)
 - 6.5 Phase 5: Enhanced Data Entry (Complex)
- 7. Success Criteria for v1.1
 - 7.1 Enhanced Usability Metrics
 - 7.2 Technical Performance
 - 7.3 User Experience Goals
- 8. Technical Constraints & Considerations
 - 8.1 iOS Version Compatibility
 - 8.2 Data Migration Strategy
 - 8.3 Performance Considerations
- 9. Future Enhancements (Post v1.1)
 - 9.1 Advanced Calendar Features
 - 9.2 Enhanced Customization
 - 9.3 Analytics & Insights
- 10. Definition of Done v1.1
 - 10.1 Core Functionality
 - 10.2 User Experience
 - 10.3 Technical Quality
 - 10.4 Ready for Showcase

1. Executive Summary

Product Name: Okie

Version: 1.1 (Enhanced MVP)

Updated: July 10, 2025

Target Platform: iOS (iPhone)

Purpose: Enhanced minimal iOS app with improved UI/UX for activity tracking, featuring card-based design, emoji customization, and calendar-based completion history.

2. Changes from v1.0 to v1.1

2.1 Major UI/UX Improvements

- **Card-based dashboard** replacing simple list view
- **Emoji picker integration** for activity customization
- **iOS native calendar** for completion history and bulk entry
- **Enhanced activity creation flow** with historical data entry
- **Visual completion feedback** with improved user experience

2.2 New Features

- Emoji-based activity icons
- Bulk completion record entry during activity creation
- "Start From" date tracking for activity initialization
- Native iOS calendar integration for history visualization
- Updated category system with new defaults

3. Updated Core Features

3.1 Enhanced Dashboard (Main Screen)

Visual Design

- **Welcome message:** "Okie dokie, let's start it!" at top
- **Card-based layout:** Each activity displayed as individual card
- **Card content:**
 - Emoji icon (user-selected)

- Activity name
- "Last done: X days ago" subtitle
- Checkmark button (right-aligned)
- **Add button:** Full-width blue button at bottom with "+" icon

Interaction Behavior

- **Tap activity card:** Navigate to Activity Detail View
- **Tap checkmark:** Immediately mark activity as completed for today
 - Visual feedback: Checkmark changes to blue with tick, remains for rest of day
 - Resets to grey circle next day
- **Tap add button:** Navigate to Add Activity flow

3.2 Enhanced Add Activity Flow

Screen Layout

- **Header:** "Add New Activity" with back arrow and close (X) option
- **Activity Icon:** Large circular button with "+" to open emoji picker
- **Name Field:** "Enter name" text input
- **Category Selection:** Horizontal scrolling pill buttons
- **Start From:** Date picker field (YYYY-MM-DD format)
- **Add Completion Records:** Button to open bulk date selection
- **Notes:** Optional text area with placeholder "Add description"
- **Confirm Button:** Full-width blue button

Updated Categories

Default Categories (pill buttons):

- Hobby (blue)
- Health (blue)

- Pet (blue)
- Home (blue)
- Others (blue)

New Features

Emoji Selection:

- Tap icon button opens iOS native emoji picker
- Selected emoji displays in button and saves with activity

Start From Date:

- Date picker showing YYYY-MM-DD format
- Sets initial tracking date for "days since" calculation
- Defaults to current date

Bulk Completion Records:

- Tap "Add Completion Records" opens iOS native calendar
- Calendar allows year/month navigation
- User taps dates to mark as completed (blue highlight)
- Multiple date selection supported
- Saves all selected dates as historical completion records

3.3 Enhanced Activity Detail View

Screen Layout

- **Header:** Activity name with emoji + back arrow
- **Last Done:** "Last Done" with "X days ago" (blue text)
- **Completion History:** Monthly calendar section
- **Activity Info:** Details section at bottom
- **Edit Button:** Full-width blue button

iOS Calendar Integration

- **Native iOS calendar widget**
- **Month/year navigation** using iOS standard controls
- **Completion visualization:**
 - Completed dates: Blue filled background with white date number
 - Empty dates: Standard iOS calendar appearance
- **Current month view** as default
- **Read-only view** (editing through main app only)

Activity Info Section

- **Category:** Displayed as colored pill (matching selection pills)
- **Notes:** Shows user-entered description
- **Created date:** When activity was first added (auto-generated)

3.4 Enhanced Widget Specifications (v1.1)

Widget Design (Small Widget)

- **Size:** Small widget (2×2 grid, similar to Reminders small widget)
- **Layout:** Vertical scrolling list of activity rows
- **Content per activity row:**
 - Emoji icon (left-aligned, circular)
 - Activity name (truncated if needed)
 - "X Days Ago" subtitle
 - Complete button (right-aligned, circular)
- **Scroll behavior:** Vertical scroll with scroll bar when >3 activities
- **Maximum display:** Up to 6 activities with scroll functionality

Enhanced Widget Behavior

- **Activity ordering:** Follows user-defined priority ranking from main app
- **Tap complete button:** Immediately marks activity as completed for today
 - Visual feedback: Button changes to blue with checkmark
 - Updates "days ago" counter in real-time
 - NO navigation to main app
- **Tap activity name/row:** Navigate to specific Activity Detail View in main app
- **Scroll interaction:** Native iOS scrolling when activities exceed 3

Widget Configuration

- **Activity selection:** Shows all activities based on priority ranking
- **Reordering:** Users drag to reorder activities in main app settings
- **Widget updates:** Automatically reflects main app priority changes
- **Real-time sync:** Completion status syncs between widget and main app instantly

Widget Data Management

- **Shared data access:** Uses existing App Groups for real-time data sync
- **Timeline updates:** Refreshes every 15 minutes or on completion action
- **Performance:** Optimized for up to 6 activities with smooth scrolling

4. Technical Implementation Updates

4.1 New Data Model Changes

Activity Entity Updates

Activity Entity:

- id: UUID
- name: String
- category: String (updated options)
- optionalDetails: String?

- createdAt: Date
- startFromDate: Date (NEW)
- priorityRank: Int
- emojiIcon: String (NEW - replaces iconName)

Completion Entity (No Changes)

Completion Entity:

- id: UUID
- activityId: UUID (relationship)
- completedDate: Date
- source: String ("widget", "app", "bulk")

4.2 New iOS Integrations

Native Calendar Implementation

- **Framework:** EventKitUI for calendar display
- **Custom calendar view** with completion date highlighting
- **Month navigation** with iOS standard controls
- **Date selection handling** for bulk entry mode

Emoji Picker Integration

- **Native iOS emoji keyboard**
- **Emoji string storage** in database
- **Fallback system** for unsupported emojis

4.3 Updated Business Logic

"Days Since" Calculation Logic

1. Get latest completion date from Completion records
2. If no completions exist, use startFromDate

3. Calculate days between latest completion and current date
4. Display as "X days ago" or "Today" if completed today

Bulk Completion Entry

- Validate selected dates are not in future
- Prevent duplicate entries for same date
- Batch insert completion records
- Update UI immediately after save

5. Updated User Experience Flow

5.1 Enhanced First-Time Setup

1. App installation and launch
2. Welcome screen (optional onboarding)
3. Create first activity with emoji selection
4. Add widget to home screen (guided tutorial)

5.2 Enhanced Daily Usage Flow

1. **Quick Complete:** Widget → tap completion button → visual feedback
2. **Review Progress:** Main app → view card dashboard → tap activity for details
3. **Add New Activity:** Dashboard → "+" button → enhanced creation flow
4. **Bulk Entry:** Add/Edit activity → "Add Completion Records" → calendar selection
5. **View History:** Activity detail → calendar view with completion visualization

5.3 Activity Management Flow

1. **Create:** Dashboard → "+" → emoji + details + historical data → confirm
2. **Complete:** Dashboard checkmark OR widget button
3. **Review:** Tap activity card → calendar history view

4. **Edit:** Activity detail → "Edit Activity" → modify details

6. Implementation Priority Order

6.1 Phase 1: Core UI Updates (Easy)

1. **Update categories** - Change category list and add new defaults
2. **Card-based dashboard** - Replace list with card layout
3. **Visual feedback** - Enhanced checkmark animation and states

6.2 Phase 2: Widget Enhancement (Medium)

1. **Small widget redesign** - Vertical scrolling list layout
2. **Fix completion functionality** - Enable direct completion from widget
3. **Real-time data sync** - Instant updates between widget and app
4. **Scroll implementation** - Handle 1-6 activities with smooth scrolling

6.3 Phase 3: Emoji Integration (Medium)

1. **Emoji picker** - Integrate iOS native emoji selection
2. **Emoji display** - Update all views to show emoji icons
3. **Data migration** - Update existing activities with default emojis

6.4 Phase 4: Calendar Features (Medium-Complex)

1. **iOS calendar integration** - Native calendar widget implementation
2. **Completion visualization** - Blue highlighting for completed dates
3. **Month navigation** - Year/month selection controls

6.5 Phase 5: Enhanced Data Entry (Complex)

1. **Start From date** - Date picker and logic implementation
2. **Bulk completion entry** - Calendar-based multiple date selection
3. **Updated calculation logic** - Integrate startFromDate with completion logic

- 4. **Activity reordering** - Drag-to-reorder functionality in main app

7. Success Criteria for v1.1

7.1 Enhanced Usability Metrics

- **Activity creation time:** Reduced by 30% with improved flow
- **Visual engagement:** Increased user satisfaction with emoji customization
- **Data entry efficiency:** Bulk completion reduces historical data entry time by 60%
- **Navigation clarity:** Card-based design improves activity discovery

7.2 Technical Performance

- **Calendar rendering:** Smooth month navigation and date highlighting
- **Emoji performance:** No lag in emoji picker or display
- **Data integrity:** Accurate "days since" calculation with new date logic
- **Widget compatibility:** Emoji icons display correctly in widget

7.3 User Experience Goals

- **Intuitive interaction:** Card tapping feels natural and responsive
- **Visual appeal:** Emoji customization increases personal connection
- **Efficient bulk entry:** Historical data entry becomes practical and quick
- **Clear completion tracking:** Calendar view provides clear progress visualization

8. Technical Constraints & Considerations

8.1 iOS Version Compatibility

- **Minimum iOS 14.0** maintained for widget support
- **iOS calendar integration** requires iOS 14+ EventKit permissions
- **Emoji support** varies by iOS version (graceful degradation)

8.2 Data Migration Strategy

- **Automatic migration** from v1.0 to v1.1 data model
- **Default emoji assignment** for existing activities
- **Preserve all completion history** during upgrade

8.3 Performance Considerations

- **Calendar optimization** for large completion datasets
- **Emoji rendering** efficiency in lists and widgets
- **Bulk insert operations** for completion records

9. Future Enhancements (Post v1.1)

9.1 Advanced Calendar Features

- **Streak visualization** - Show completion streaks in calendar
- **Goal setting** - Weekly/monthly completion targets
- **Calendar export** - Export completion data to iOS Calendar app

9.2 Enhanced Customization

- **Custom emoji categories** - Organize emojis by activity type
- **Color themes** - User-selectable color schemes
- **Widget customization** - Multiple widget sizes and layouts

9.3 Analytics & Insights

- **Completion patterns** - Weekly/monthly completion analysis
- **Achievement system** - Milestone celebrations
- **Trend visualization** - Graphical progress tracking

10. Definition of Done v1.1

10.1 Core Functionality

- ☐ Card-based dashboard with emoji icons functional
- ☐ Emoji picker integration working in add/edit flows
- ☐ iOS calendar displaying completion history accurately
- ☐ Bulk completion entry working with calendar selection
- ☐ "Start From" date logic implemented correctly
- ☐ Updated categories system functional

10.2 User Experience

- ☐ Smooth animations and transitions throughout app
- ☐ Intuitive navigation between all screens
- ☐ Visual feedback for all user interactions
- ☐ Consistent design language across all views
- ☐ Error handling for edge cases (invalid dates, emoji issues)

10.3 Technical Quality

- ☐ Data migration from v1.0 working correctly
- ☐ Widget displays emoji icons properly
- ☐ Calendar performance optimized for large datasets
- ☐ All completion tracking logic accurate
- ☐ App works offline without issues

10.4 Ready for Showcase

- ☐ Polished UI suitable for social media demonstration
- ☐ Stable performance for daily personal use
- ☐ Clear value proposition over v1.0 visible
- ☐ Professional quality suitable for portfolio presentation