Aurae

Headache Tracker & Trigger Intelligence

Document Type	Product Requirements Document (PRD)
Version	1.0 — Initial Draft
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Platform	iOS (iPhone-first)
Stage	Early Concept
Monetization	Freemium

1. Executive Summary

Aurae is an iOS application that helps headache and migraine sufferers understand, track, and manage their condition through intelligent contextual logging. Unlike basic headache diaries that depend on manual recall, Aurae automatically captures environmental and physiological data at the moment of onset — then connects the dots across time to reveal personal trigger patterns.

The app targets a broad audience ranging from casual headache sufferers to chronic migraine patients. A freemium model makes core logging free and accessible while unlocking AI-powered insights, advanced analytics, and clinical export tools for premium subscribers.

Design-forward and calming by intent, Aurae draws from the visual language of apps like Robinhood, Strava, Headspace, Lumy, Tiimo, and (Not Boring) Weather — bold typography, generous whitespace, and a palette that is never harsh on sensitive eyes.

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2. Problem Statement

Headaches and migraines affect over 1 billion people globally. Despite their prevalence, most sufferers have limited insight into what causes their episodes. The core challenges are:

- Recall bias — by the time a headache subsides, users have forgotten meal timing, sleep quality, or the weather at onset.
- Data fragmentation — relevant context (sleep, heart rate, weather) lives across multiple apps with no unified view.
- No actionable insight — users who do log headaches rarely have the tools to identify meaningful patterns without clinical support.
- Doctor communication gap — patients struggle to summarise their headache history in a clinically useful format.

Aurae addresses all four by capturing the right data automatically at onset, supporting detailed retrospective enrichment, and surfacing a clear intelligence layer that benefits both users and their healthcare providers.

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3. Goals & Success Metrics

3.1 Product Goals

- Enable fast, frictionless headache logging — under 10 seconds for a basic onset log.
- Auto-enrich each log with weather, Apple Health, and sleep data at the moment of onset.
- Support detailed retrospective entry once the headache has subsided.
- Surface trigger patterns and trends through AI-powered analysis (paid tier).
- Produce clean, exportable PDF reports suitable for healthcare provider visits.
- Deliver a visually calming, design-forward experience with best-in-class accessibility.

3.2 Key Success Metrics

Metric	Target (6 months post-launch)
Avg. onset log time	< 10 seconds
7-day retention	> 55%
30-day retention	> 30%
Free → Premium conversion	> 8%
App Store rating	≥ 4.5 stars
Monthly active users	50,000+
PDF exports / month	> 10,000

4. Target Users

Aurae serves a broad spectrum of users unified by the experience of recurring headaches. Three primary personas drive the feature set:

The Occasional Sufferer

Experiences headaches a few times a month and wants a simple log to understand what might be triggering them. Values speed and simplicity above all. Likely to use the free tier. Core need: one-tap logging with zero friction.

The Migraine Patient

Experiences frequent, debilitating migraines — potentially with aura. Actively managed by a neurologist or headache specialist. Needs rich contextual data, pattern recognition, and printable reports for clinic visits. Core premium subscriber. Core need: clinical-grade export and trigger insights.

The Chronic Condition Manager

Manages headaches alongside another condition such as fibromyalgia, hypertension, or hormonal disorders. Interested in correlating headache data with menstrual cycle, medication, and physiological signals. Core need: granular data fields and longitudinal trend analysis.

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5. Core Features

5.1 Onset Logging — Home Screen

The home screen is the beating heart of Aurae. It must communicate calm, clarity, and instant action. Inspired by the minimal power of Headspace and the bold data presence of Strava and Robinhood, the home screen contains:

- A prominent Log Headache button — large, accessible, impossible to miss.
- A severity selector: five distinct tap targets (Mild / Moderate / Severe / Very Severe / Worst). The control should feel tactile, not clinical.
- A subtle ambient summary of recent activity — e.g. "Last headache: 4 days ago" or a soft 7-day calendar strip.
- Minimal bottom tab bar with icon + label — Home, History, Insights, Profile.

On tap, the app immediately records a timestamped event, pulls weather data, reads available Apple Health data (heart rate, HRV, SpO2, steps), and reads sleep data. The user receives confirmation within 1–2 seconds. The entire interaction should take under 10 seconds.

5.2 Automatic Data Capture at Onset

Weather Data

- Temperature, humidity, barometric pressure & trend, UV index, AQI, and general conditions.
- Location is used only to query weather — not stored or shared.

Apple Health Integration

- Resting + current heart rate, HRV, SpO2, step count, and menstrual cycle phase.

Sleep Data

- Previous night's duration and stages via Apple Health or connected services (Oura, Garmin, Fitbit).
- If no automatic data is available, the user is prompted during the post-headache retrospective.

5.3 Post-Headache Retrospective

After a headache resolves, the user is invited to enrich the log with retrospective detail. All fields are optional, grouped into logical sections:

Headache Details

- Adjust severity and duration, headache type/location, and accompanying symptoms (nausea, light/sound sensitivity, aura, neck pain, visual disturbances).

Food & Drink

- Recent meals (free text or trigger shortcuts), alcohol, caffeine, hydration, and skipped meals.

Lifestyle Factors

- Sleep quality (manual 1–5 if not auto-filled), sleep hours, stress level (1–5), and screen time.

Medication

- Medication taken (searchable list + free text), dose, timing, and effectiveness rating.
- Medication overuse warning: a gentle, non-alarmist prompt if acute medication is logged more than 10 days in a month.

Women's Health

- Menstrual cycle phase — auto-filled from Apple Health if available.

Environment

- Manual weather override and environmental triggers (strong smells, bright lights, loud noise, screen glare).

5.4 Headache History & Calendar View

- Scrollable history with severity indicators, duration, and key attached data.
- Calendar view with headache days highlighted — colour-coded by severity.
- Tap into any log to view full detail of auto-captured and manually entered data.
- Search and filter by date range, severity, or trigger factor.

5.5 AI-Powered Trigger Insights (Premium)

After logging a minimum of 5 headaches, the app begins surfacing pattern analysis:

- Top suspected triggers — ranked by co-occurrence frequency.
- Weather correlation — does barometric pressure drop precede your headaches?
- Cycle correlation — pattern detection around menstrual cycle phase.
- Medication effectiveness trends — what worked, and how quickly?
- Weekly and monthly frequency charts with trend lines.

Insights are presented in plain, empathetic language — not medical diagnoses. No raw health data is sent to third-party AI services without explicit opt-in consent.

5.6 PDF Export for Healthcare Providers

Users can generate a structured, print-ready PDF report suitable for sharing with a neurologist, GP, or headache clinic.

Free Tier

- Summary table: date, time, duration, severity. Selectable date range and basic medication log.

Premium Tier

- All free content plus full contextual data, trigger pattern summary, charts (frequency, severity distribution, medication effectiveness), and menstrual cycle overlay.
- Clean, professional layout — designed to be taken to a clinic appointment. All generation happens on-device.

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6. Design System & Visual Language

Aurae's design must be simultaneously striking and gentle. Users are often in pain — the interface should never feel harsh, cluttered, or anxiety-inducing. Visual references: Robinhood (confident data typography), Strava (bold + clean dashboard), Lumy (soft palette, delightful interactions), Tiimo (calm, accessible), Headspace (approachable wellness), (Not Boring) Weather (playful but refined ambient UI).

6.1 Color Palette

Role	Hex	Usage
Deep Navy	#0D1B2A	Primary text, headings, key actions
Soft Teal	#2D7D7D	Brand accent, CTA buttons, highlights
Fog White	#F5F6F8	Background, card surfaces
Mist Lavender	#EEF0F8	Secondary surfaces, selected states
Storm Gray	#6B7280	Secondary text, labels, metadata
Pale Blush	#FDF0EE	Severity High — warm, non-aggressive alert
Sage Green	#D1EAD4	Severity Low — calm, positive state

Dark Mode is a first-class requirement. The palette inverts gracefully — Fog White becomes #0A0F14, Deep Navy becomes near-white, and Teal remains the constant brand anchor.

6.2 Typography

Aurae uses two typefaces that together communicate warmth, craft, and legibility:

- **Fraunces** — display and heading typeface. A variable "wonky" serif with optical size axes, inspired by old-style type with a contemporary twist. Used for all H1/H2 headings, the app name, and key display numbers. Its softness and character are immediately distinctive without being aggressive.
- **Plus Jakarta Sans** — body and UI typeface. A geometric sans-serif with strong legibility at small sizes and a friendly, modern personality. Used for all body copy, labels, navigation, table content, and form fields.
- Type scale: Display (48pt+) for home screen hero elements, H1 (32pt) section headings, H2 (22pt) subsections, Body (16pt) reading copy, Caption (13pt) metadata.
- Dynamic Type support — all text must scale with iOS accessibility font sizes.

6.3 Layout Principles

- Generous vertical spacing — the app should never feel packed or dense.
- Card-based surfaces with subtle shadow and 16–20px corner radius.
- Bottom-anchored primary actions — the Log Headache button lives in thumb reach.
- Haptic feedback on all key interactions — severity slider, log confirmation, report generation.
- Smooth spring-physics transitions — no abrupt cuts.
- Iconography: line-based, minimal, never cartoonish.

6.4 Home Screen Layout

The home screen is intentionally sparse, from top to bottom:

1. Greeting / date strip — e.g. "Good morning. Tuesday, 18 Feb." Set in Plus Jakarta Sans, Storm Gray.
2. Recent activity indicator — soft pill badge: "Last headache: 3 days ago" or a mini 7-day dot calendar.
3. Log Headache button — large hero CTA. Teal fill, white Fraunces label, generous tap target.
4. Severity selector — five rounded pill buttons or a smooth labelled slider. Must be operable one-handed.
5. Bottom tab bar — Home, History, Insights, Profile. Icon + Jakarta label.

No carousels. No banners. No notifications on the home screen. Just the action.

6.5 Accessibility

- WCAG 2.1 AA minimum contrast across all text and interactive elements.
- Dynamic Type support and VoiceOver support across all screens.
- All interactive elements minimum 44×44pt tap targets.
- No information conveyed by colour alone — always paired with icon or label.
- Reduce Motion: disable parallax and auto-playing transitions.

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7. Monetization — Freemium Model

Core logging is permanently free with no usage limits. Premium unlocks the intelligence and clinical layers. The gate is placed after users have seen genuine value from the free tier.

Feature	Free	Premium ≣
Onset logging (unlimited)	≣	≣
Auto weather data capture	≣	≣
Auto Apple Health capture	≣	≣
Post-headache retrospective	≣	≣

History & calendar view	≣	≣
Basic PDF export (summary)	≣	≣
AI trigger pattern analysis	—	≣
Full contextual PDF export	—	≣
Charts & trend visualisations	—	≣
Medication effectiveness tracking	—	≣
Menstrual cycle correlation	—	≣
Weather correlation insights	—	≣
Custom report builder (clinics)	—	≣
Data export (CSV / JSON)	—	≣

7.1 Pricing

- Monthly: $4.99 / month.
- Annual: $34.99 / year (~$2.92/month, 42% saving).
- Free trial: 14 days of Premium, no credit card required.

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8. Technical Requirements

8.1 Platform

- iOS 17+ target, iOS 16 minimum. iPhone optimised; iPad as stretch goal.
- Native Swift / SwiftUI preferred for performance and Health framework access.

8.2 Integrations

Integration	Purpose	Notes

Apple HealthKit	Sleep, HR, HRV, SpO2, cycle	Explicit user permission per data type
Weather API	Temp, humidity, pressure, AQI	Open-Meteo (free) or WeatherKit (Apple-native)
CoreLocation	Location at onset for weather	When-in-use only. Not stored.
PDFKit / renderer	PDF report generation	On-device — no server round-trip
RevenueCat / StoreKit 2	Subscription management	RevenueCat recommended for analytics
Oura / Garmin / Fitbit	Sleep data fallback	Phase 2 — via HealthKit relay or OAuth

8.3 Data & Privacy

- All health data stored on-device or in the user's private iCloud container (CloudKit). Never on Aurae servers.
- No raw health data sent to third-party AI services without explicit, granular consent.
- Pattern analysis runs on-device where possible (Core ML).
- GDPR and HIPAA compliance posture — a trust and brand decision even where not legally required.
- One-tap data deletion from within the app.

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9. Key User Flows

9.1 First Launch & Onboarding

1. Welcome screen — app name, one-line value prop, CTA: "Get Started".
2. Permission prompts — Health access (explain each type), Location (when in use), Notifications.
3. Optional quick questionnaire — headache frequency, existing diagnosis.
4. Home screen — ready to log. First-time tooltip on the Log button.

9.2 Logging a Headache (Core Flow)

1. User opens app. Home screen visible.
2. User selects severity (optional — defaults to Moderate).
3. User taps "Log Headache". Haptic feedback. Auto-capture fires in background.
4. Confirmation: "Logged at 2:34 PM. Stay hydrated." with a calm animation.
5. Notification scheduled: "How's your headache? Tap to update." (1 hour later, configurable.)
6. User marks headache as resolved. App prompts retrospective entry.
7. Retrospective completed (or skipped). Log is sealed.

9.3 Generating a PDF Report

1. User navigates to History or Profile > Export Report.
2. Selects date range and data to include.
3. Premium: selects report depth (summary vs. full clinical).
4. "Generate Report" — PDF rendered on-device in < 3 seconds.
5. Share sheet: AirDrop, Mail, Save to Files, Print.

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10. Out of Scope for V1

- Android version.
- Web dashboard or companion app.
- Direct EHR / medical record integration.
- Community or social features.
- In-app telemedicine or doctor referral.
- Custom medication database or drug interaction checking.
- Apple Watch native app (Phase 2).
- Multi-user / family accounts.

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11. Risks & Mitigations

Risk	Likelihood	Mitigation
HealthKit permissions denied	High	All health data optional. App fully functional without it.
Weather API downtime	Medium	Cache last-known weather. Fallback to manual entry.
Low free→premium conversion	Medium	Ensure free tier is genuinely valuable. Test paywall placement.
Medical liability	Medium	Clear in-app disclaimers. Tracking tool, not diagnostic. Legal review.
Drop-off after first log	High	Strong retrospective UX. "First Insight" after 3 entries.
Privacy concerns	Medium	On-device storage. Transparent permissions. Privacy-first marketing.

12. Open Questions

- Which weather API? WeatherKit (Apple-native) vs. Open-Meteo (open source) vs. paid provider with superior barometric pressure data?
- Will trigger analysis run fully on-device (Core ML) or involve a server component?
- Should the app include a headache type taxonomy (tension, migraine, cluster, sinus) in V1?
- What is the minimum viable data set for the AI to surface a meaningful first insight?
- Should the PDF export be Aurae-branded or a neutral clinical document?
- Is Apple Watch support a V1 requirement or Phase 2?

13. Appendix — Competitive Landscape

App	Strengths	Weaknesses vs Aurae

Migraine Buddy	Large user base, detailed logging	Dated design, complex UX, no AI insights
Headache Log	Simple, fast	No auto-capture, no insights, minimal design
Bearable	Broad symptom tracking	Not headache-specific, overwhelming for new users
Aurae	Auto-capture + AI + premium design + clinical PDF	New entrant — needs to build trust and data volume

Document prepared for internal product and engineering review. All specifications subject to iteration based on user research and technical feasibility assessments.