# Total Operating Costs & Launch Strategy

Every real bill we pay to run Sola — app infrastructure, business tools, APIs, and hosting — with growth projections from 0 to 10,000 users.

**Prepared for:** Sola Team
**Date:** February 8, 2026
**Stack:** React Native (Expo) + Supabase + PostHog + Sentry
**Business Tools:** Google Workspace + Lovable + Figma + Notion

# Executive Summary

Sola's total monthly operating cost is split between **app infrastructure** (scales with users) and **business overhead** (fixed costs we pay regardless of user count). Here's the full picture.

| **$422** | **$447** | **$462** | **$500** |
|:---:|:---:|:---:|:---:|
| 100 USERS/MO | 1,000 USERS/MO | 5,000 USERS/MO | 10,000 USERS/MO |

### BUSINESS OVERHEAD (FIXED)

**~$422/mo**

Google Workspace, Lovable, AI tools (Claude, ChatGPT, Gemini), Figma, Notion, domain, Apple Dev. Does NOT scale with users.

### APP INFRASTRUCTURE (VARIABLE)

**$8 → $80/mo**

Supabase, PostHog, Sentry, Expo Push. Scales with users — but very slowly for a text-heavy app.

### BOTTOM LINE

**Total burn at 10,000 users: ~$500/month.** Business overhead ($422) dwarfs infrastructure ($80). AI tools alone ($280/mo) cost more than everything else combined. Even at zero users, we're paying $422/mo to operate. The app infrastructure itself is remarkably cheap.

# 1. Every Bill We Pay

Every service, subscription, and API that costs money — or will cost money — organized by whether it scales with users or not.

## A. Business Overhead (Fixed — Paid Regardless of User Count)

| SERVICE | WHAT IT'S FOR | MONTHLY COST | NOTES |
| --- | --- | --- | --- |
| Google Workspace (Business Standard) | Team email (@solatravel.app), Drive, Calendar | $42 | 3 users × $14/user |
| Lovable | Marketing website hosting | $20 | Custom domain, landing pages |
| Apple Developer Program | iOS App Store distribution | $8.25 | $99/yr amortized |
| Domain registration | solatravel.app (or similar) | ~$1.50 | ~$15-18/yr amortized |
| Figma | UI/UX design | $15-45 | 1-3 Pro seats at $15/user. Free tier works for 1 person with ≤3 files. |
| Notion | Docs, roadmap, internal wiki | $20-30 | Team plan: 2-3 users × $10/user. Free tier works for solo. |
| Canva | Social media graphics, ASO assets | $0-13 | Free tier may be enough. Pro = $13/mo. |
| Social media scheduler | Buffer / Later / Typefully | $0-15 | Free tiers often enough for launch. |
| **AI & DEVELOPMENT TOOLS** | | | |
| Claude (Anthropic) | AI development, code, strategy | $200 | Max plan or multi-seat Pro |
| ChatGPT (OpenAI) | Writing, research, team productivity | $60 | 3 users × $20/user (Plus) |
| Google Gemini | AI assistant, research | $20 | 1 Advanced seat |
| **Business overhead subtotal** | | **$387-455** | Mid estimate: ~$422/mo |

## B. App Infrastructure (Variable — Scales with Users)

| SERVICE | WHAT IT'S FOR | COST AT 100 USERS | COST AT 10K USERS |
|---|---|---|---|
| Supabase (Free → Pro) | Database, auth, storage, realtime, edge functions | $0 | $25 + $5-15 overages |
| PostHog | Product analytics (~40 events) | $0 | $0-30 |
| Sentry | Error tracking, crash reports | $0 | $0-26 |
| Expo Push Notifications | DM push notifications | $0 | $0 |
| Unsplash | Editorial hero images (hotlinked) | $0 | $0 |
| **Infrastructure subtotal** | | **$0** | **$30-80** |

## C. API & Development Costs (Occasional / One-Time)

| SERVICE | WHAT IT'S FOR | MONTHLY COST | NOTES |
|---|---|---|---|
| Google Places API | Seeding place data (restaurants, stays, activities) | $0 | $200/mo free credit from Google Cloud. Used only in scripts, not in production app. One-time seeding cost per new city. |
| Pexels API | Stock photos for place galleries | $0 | Free tier. Used in seeding scripts only. |
| Unsplash API | Fallback images for seeding | $0 | Free tier (50 req/hr). Production images are hotlinked, not API calls. |
| EAS Build (Expo) | iOS/Android builds | $0 | Free tier: 30 builds/mo. Plenty for pre-launch. Beyond: $99/mo. |
| Claude Code / AI tools | Development assistance | Variable | Development cost, not operational. Stops when shipping stops. |
| **API/Dev subtotal** | | **$0** | **Free tiers cover us through 10K users** |

> **GOOGLE PLACES API — WATCH THIS**
>
> Google gives $200/mo free credit for Cloud APIs. Our seeding scripts use Place Details + Place Photos. Each new city seeded costs ~$5-15 in API calls (one-time). **As long as we're seeding <15 new cities per month, it's free.** But if we do a big content push across 30+ cities at once, we could exceed the free credit. Batch content seeding carefully.

# 2. Total Monthly Burn at Each Scale

Business overhead + app infrastructure = what we actually spend each month.

## 100 Users — Soft Launch / Beta

| CATEGORY | SERVICE | MONTHLY COST |
|---|---|---|
| **BUSINESS OVERHEAD** | | |
| Email & Workspace | Google Workspace (3 users, Standard) | $42 |
| Website | Lovable | $20 |
| App Store | Apple Developer | $8.25 |
| Domain | Domain registrar | $1.50 |
| Design | Figma (1 Pro seat) | $15 |
| Productivity | Notion (Team, 3 users) | $30 |
| Social | Canva Free + Buffer Free | $0 |
| **AI & DEVELOPMENT TOOLS** | | |
| AI (Development) | Claude Max / Pro | $200 |
| AI (Team) | ChatGPT Plus (3 seats) | $60 |
| AI (Research) | Google Gemini Advanced | $20 |
| **APP INFRASTRUCTURE** | | |
| Backend | Supabase Free | $0 |
| Analytics | PostHog Free | $0 |
| Errors | Sentry Free | $0 |
| Push | Expo Push (free) | $0 |
| APIs | Google Places ($200 free credit) | $0 |
| **Total Monthly Burn** | | **~$397** |

## 1,000 Users — Post-Launch

| CATEGORY | CHANGE FROM PREVIOUS | MONTHLY COST |
| --- | --- | --- |
| Business overhead | No change | $397 |
| Supabase | Upgrade Free → Pro | $25 |
| PostHog / Sentry / Push | Still free tier | $0 |
| **Total Monthly Burn** | | **~$422** |

## 5,000 Users — Traction

| CATEGORY | CHANGE FROM PREVIOUS | MONTHLY COST |
| --- | --- | --- |
| Business overhead | Maybe add Canva Pro for ASO | $410 |
| Supabase Pro + overages | Storage may hit ~5GB | $25-30 |
| PostHog / Sentry | Still within free tiers | $0 |
| **Total Monthly Burn** | | **~$435-440** |

## 10,000 Users — Pre-Monetization Target

| CATEGORY | CHANGE FROM PREVIOUS | MONTHLY COST |
| --- | --- | --- |
| Business overhead | Might add social scheduler | $422 |
| Supabase Pro + overages | Bandwidth climbing | $30-40 |
| PostHog | May exceed 1M events/mo | $0-30 |
| Sentry | May exceed 5K errors/mo | $0-26 |
| **Total Monthly Burn** | | **~$455-520** |

> **THE REAL STORY**
>
> At every scale, **business overhead dominates** — AI tools alone ($280/mo) cost more than app infrastructure will ever cost at 10K users. The app literally runs for free until 1,000 users. Infrastructure only becomes a meaningful cost line if we add photo uploads, video, or maps.

# 3. Cost Per Active User

| SCALE | TOTAL MONTHLY | INFRA ONLY | MAU | TOTAL COST/USER | INFRA COST/USER |
|---|---|---|---|---|---|
| Soft launch | $397 | $0 | 100 | $3.97 | $0.00 |
| Post-launch | $422 | $25 | 1,000 | $0.42 | $0.025 |
| Traction | $438 | $28 | 5,000 | $0.088 | $0.006 |
| Pre-monetization | $490 | $68 | 10,000 | $0.049 | $0.007 |

> **WHY SOLA IS CHEAP TO RUN**
>
> **Text-first content** — community threads, trip journals, DMs are all tiny payloads. **Unsplash-hosted images** — editorial images cost us zero bandwidth. **Minimal user uploads** — only avatars (one small image per user). **Low-volume chat** — 1:1 DMs, not group/media chat. **No video, no maps API, no real-time location tracking.**

# 4. Top Cost Traps

Things that look cheap now but can surprise us at scale.

## 1  PostHog Event Explosion (the silent killer)

We track ~40 event types across 25 files. At low usage this is fine. But if users are sticky:

```
Low usage: 10K MAU × 5 sessions × 8 events = 400K events/mo ✔ free
High usage: 10K MAU × 15 sessions × 12 events = 1.8M events/mo ✘ $248/mo overage
```

**Fix:** Set a PostHog usage alert at 500K events/mo. When approaching limits, cut generic `screen_viewed` events and keep only specific action events. Alternatively, self-host PostHog on a $5/mo VPS.

## 2  Supabase Bandwidth from Image Serving

Place images in our Supabase Storage bucket download through our bandwidth quota on every city page load. Supabase isn't a CDN.

```
10K MAU × 5 sessions × 7MB images = 350GB/mo
Pro includes 250GB. Overage: 100GB × $0.09 = $9/mo
```

**Fix (when needed):** Move place images to Unsplash URLs or Cloudflare R2 ($0 egress). Use expo-image caching aggressively.

### 3   User Photo Uploads Beyond Avatars

Users *will* request trip photo journals. The math changes fast:

```
10K users × 3 trips × 20 photos × 500KB = 300GB storage = $75/mo
```

**Rule:** Don't add user photo uploads beyond avatars until monetization is in place.

### 4   AI Tool Subscriptions Are Your #1 Cost

Claude ($200) + ChatGPT ($60) + Gemini ($20) = **$280/mo**. That's more than all other business tools and app infrastructure combined. These are development costs, not operational costs — they should decrease after launch.

**Fix:** After v1 ships, audit which AI tools the team actually uses daily. Consider: do all 3 people need ChatGPT Plus? Does everyone need all three services? Consolidating to 1-2 AI tools post-launch could save $100-200/mo.

### 5   Google Workspace Seat Creep

At $14/user/mo on Business Standard, every new team member or contractor costs $168/yr. If you add 2 more seats for marketing or support, that's $336/yr extra.

**Fix:** Use Business Starter ($7/user) for non-core roles. Consider whether some team members only need free Google accounts with shared drives.

### 6   Google Places API Burst Costs

The $200/mo free credit resets monthly. Place Details costs $0.017/call, Photo costs $0.007/call. Seeding a new city with 50 places and 5 photos each = ~$21.

```
Seeding 10 cities in one month = ~$210 → $10 out of pocket
Seeding 20 cities in one month = ~$420 → $220 out of pocket
```

**Fix:** Spread content seeding across months. Never seed more than ~10 cities in one billing cycle.

**7** **EAS Build Limits**

Expo's free tier includes 30 builds/month. During active development that's fine. But if you're doing frequent hotfixes post-launch, you could burn through them. The next tier is $99/mo.

**Fix:** Test thoroughly before submitting. Batch fixes into weekly releases. Use OTA updates (expo-updates) for JS-only changes to avoid full rebuilds.

# 5. Bootstrapped Launch Strategy

A phased approach to growing safely without surprise bills.

**Phase 0: Beta (Now → 100 users)**

Total burn: ~$397/mo (all business overhead, $0 infra)

- Stay on **Supabase Free plan**
- Invite-only TestFlight (control growth)
- **Limit** DMs to 10 conversations per user
- **Disable** trip matching (useless at low user counts)
- Seed content for 4 launch countries (PH, VN, TH, ID) using Google Places free credit
- Monitor weekly: Supabase Dashboard → DB size, bandwidth

**Phase 1: Public Launch (100 → 1,000 users)**

Total burn: ~$422/mo (+$25 for Supabase Pro)

- Upgrade to **Supabase Pro** before going public (daily backups are critical)
- Launch in App Store — SE Asia focus only
- **Limit** community to 1 post per user per day
- **Limit** avatar uploads to 500KB max
- Set PostHog alert at 500K events/mo, Sentry alert at 3K errors/mo
- Don't add new Google Workspace seats — use shared access where possible

**Phase 2: Growth (1,000 → 5,000 users)**

Total burn: ~$435-440/mo

- **Enable trip matching** (now useful with enough user density)
- Start planning monetization — plenty of runway at this cost
- Consider moving place images to Cloudflare R2 if bandwidth is climbing
- Audit PostHog events — cut low-value generic events if approaching 700K/mo
- Spread new city content seeding to stay within Google Places free credit

**Phase 3: Pre-Monetization (5,000 → 10,000 users)**

Total burn: ~$455-520/mo

- **Introduce monetization before 10K users**
- Suggested: Premium profile features ($4.99/mo) via RevenueCat
- Even 2% conversion = 200 subscribers = **$1,000/mo revenue** — covers all costs 4-5x over
- If PostHog costs spike, switch to self-hosted on a $5/mo VPS
- Audit Google Workspace — do all seats need Business Standard?

- Add API rate limiting to prevent scrapers from burning bandwidth

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# 6. Weekly Monitoring Checklist

Check these numbers every Monday. Takes 5 minutes.

## App Infrastructure

| METRIC | ALERT AT | ACTION AT |
|---|---|---|
| Supabase DB size | 4 GB | 6 GB — review query efficiency, archive old data |
| Supabase Storage | 50 GB | 80 GB — move images to Cloudflare R2 |
| Supabase Bandwidth | 200 GB/mo | 230 GB — optimize image sizes, add CDN |
| Realtime connections | 400 peak | 450 — check for connection leaks |
| Edge Function calls | 1.5M/mo | 1.8M — batch DM notifications |
| PostHog events | 500K, then 800K | 900K — cut low-value events |
| Sentry errors | 3K/mo | 4K — investigate top error sources |

## Business & API Costs

| WHAT TO CHECK | WHERE | WATCH FOR |
|---|---|---|
| Google Cloud billing | console.cloud.google.com/billing | Places API exceeding $200 free credit |
| Google Workspace seats | admin.google.com | Unused seats still billing |
| EAS build count | expo.dev dashboard | Approaching 30 builds/mo |
| App Store crash rate | App Store Connect | Above 1% — hotfix priority |
| Lovable bandwidth | Lovable dashboard | If marketing site gets traffic spikes |

# 7. Final Summary

| USERS | TOTAL/MONTH | INFRA | OVERHEAD | BIGGEST RISK |
|---|---|---|---|---|
| 100 | $397 | $0 | $397 | AI tools ($280) are the biggest line item |
| 1,000 | $422 | $25 | $397 | Forgetting to upgrade Supabase (data loss) |
| 5,000 | $438 | $28 | $410 | PostHog approaching limit |

| USERS | TOTAL/MONTH | INFRA | OVERHEAD | BIGGEST RISK |
|---|---|---|---|---|
| 10,000 | $490 | $68 | $422 | PostHog overage + Google API bursts |

REVENUE BREAK-EVEN

At $490/mo total cost and a $4.99/mo subscription, we need **98 paying subscribers** to break even. That's 1% of 10,000 users. Most consumer apps convert 2-5% to paid. At 2% conversion (200 subs), we'd generate $1,000/mo — **double our total operating costs.** If we cut AI tool subscriptions post-launch, break-even drops to just 14 subscribers.

WHAT COULD CHANGE THIS MATH

Three features would significantly increase costs if added: **(1) User photo uploads** for trip journals (+$75-300/mo in storage). **(2) Real-time features** like typing indicators or presence (+$10-50/mo in Realtime). **(3) Maps integration** like Google Maps SDK (~$7 per 1,000 map loads). None of these are needed for v1. Resist adding them until revenue supports it.