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Idea

Brief description

It’s an app where a user uploads their monthly mortgage statement (PDF), and the system automatically extracts all key numbers—principal, interest, escrow, PMI, taxes, rate, remaining term, and fees. The app then shows a clear, personalized breakdown of their mortgage health and simulates optimization strategies: extra payments, PMI-drop timelines, refinancing scenarios, and long-term savings. It doesn’t act as a broker—it simply gives homeowners the clarity, maths, and insights their lender never explains.

Elevator pitch

Upload your mortgage statement and get instant, clear insights into your loan—plus simple scenarios that show how to pay it off faster and save money. No brokers, no sales—just the straight math your lender won’t show you.

Risk Assessment

Technology Risks

Severity: Moderate

Controllability: High

Summary

- Expected extraction accuracy:
  - 80% of documents fully correct.
  - 18% with only 1–2 minor errors.
- Internal processing cost: < $0.25 per statement.
- Pre-sale assessment cost must be minimized.
- Anticipated performance: 99% of documents processed within 60 seconds (requires PoC validation).

Mitigation

- Build an optimized OCR/LLM extraction pipeline.
- Use caching and staged parsing to reduce pre-sale costs.
- Validate assumptions early with a diverse PDF sample set.

Brand, Visual Identity, and UX Risks

Severity: Low

Controllability: High

Summary

- Branding is not critical at this phase; can evolve as needed.
- Pre-sale flow can use videos or example statements to demonstrate how the product works.
- UX can follow the simplicity of a todo-app.
- UX reference point: Bankrate’s mortgage calculator, but with two key USPs:
  - Users do not need to enter data manually.
  - Users get clear, comprehensible advice, not vague charts.

Mitigation

- Provide simple onboarding and preview screens.
- Emphasize clarity, trust, and readability in the results.

Legal & Compliance Risks

Severity: Low to Moderate

Controllability: High

Summary

- Stripe should classify it under “Personal Finance Software.”
- Ad messaging guidelines:
  - Acceptable: “See how much you could save on your mortgage.”
  - Avoid: “We reduce your mortgage fast.”
- Avoid promising specific financial outcomes.

Mitigation

- Include straightforward disclaimers.
- Keep communication educational rather than advisory.
- Avoid language implying lending, credit repair, or guarantees.

Marketing Risks

Severity: High

Controllability: Medium

Summary

- Google Ads recommended as the primary initial channel due to low management cost and workable CAC potential.
- Secondary channel: Meta Ads, especially Instagram with short screencasts.
- Additional channel: TikTok, also using mobile app screencasts.

Mitigation

- Start with Google Ads to validate interest and CAC.
- Use short UI demo videos on Instagram and TikTok.
- Leverage example statement walkthroughs as the main creative format.

Proposed business model

Overview

My suggestion—there is no freemium tier and no trial period. Users can explore example statements, sample results, and UI previews to assess the value before purchasing.

One-Time Analysis

Price: ~$15

What the user gets:

- Full PDF processing for one mortgage statement
- Clear, structured loan overview
- Tangible, comprehensible optimization advice
- No subscription required
- Immediate delivery after payment

Purpose:

A low-friction entry point that demonstrates real value and naturally leads users into the subscription if they want ongoing updates.

Subscription

Price: ~$20/month, one-time buyers get the first month free.

What the user gets:

- Ability to upload new statements anytime
- Updated analysis as the loan evolves
- Dynamic recommendations based on changes in interest/principal
- Alerts for rate movements, refinancing opportunities
- Notifications when PMI can be removed
- Ongoing savings insights using live amortization recalculations

Why this model should work

- A $15 diagnostic is an easy purchase when potential savings are far larger.
- Subscriptions make sense because mortgage conditions change monthly and users care about timing opportunities.
- The flow from one-time purchase → free first month → ongoing subscription is natural and low-friction.

Initial scope suggestion

Core Functional Scope

PDF Intake & Parsing

- Upload flow (mobile-first)
  - Upload single PDF through mobile-friendly web UI.
  - File validations: type, size, password protection detection.
- Text extraction
  - Prefer native PDF text layer.
  - Fallback to OCR for scanned documents—OpenAI API for V1.
- Document classification
  - Detect whether the uploaded file *looks like a mortgage statement*.
  - Why it matters: if it's a W-2, bank statement, tax form, or any unrelated PDF, the system should clearly respond:

    "This document doesn't contain mortgage information."
- Field extraction (V1 — FRM only)

  Required fields:
  - Borrower name — used to detect whether multiple people are trying to use the same subscription.
  - Statement date.
  - Current principal balance.
  - Monthly payment amount and its principal/interest split.
  - Interest rate.
  - Original loan amount (if present).
  - Escrow balance (optional, but useful).
  - YTD interest or YTD principal (optional).

Loan Modeling & Optimization Engine

- FRM amortization model

    - Construct schedule from extracted fields.
    - Infer remaining term when missing (e.g., compute from payment rate and balance).
- Scenario engine
    - Monthly extra principal.
    - One-time extra principal (lump sum).
    - Biweekly payments scenario.
- Outputs
    - Updated payoff date.
    - Total interest savings.
    - Plain-language recommendations (3–5 items).
- PMI/LTV hints (optional user input)
    - User can enter estimated property value.
    - Compute current LTV to determine PMI-removal opportunity.

One-Time Analysis Flow

- Payment-first model
    - User uploads PDF → system checks validity → user pays for the analysis.
    - Price: ~$15.
- Post-payment processing
    - Process PDF fully.
    - Generate structured analysis and recommendations.
    - Show results immediately.
- Results UI (mobile-first)
    - Simple, Bankrate-like layout.
    - No charts unless absolutely needed.

    - Focus on clear text-based insights.

Subscription Flow

- Account system
    - Borrower name helps ensure the subscription is used for a single user/household.
- Subscription
    - $20/month.
    - One-time buyers receive the first month free.
- Features
    - Upload new statements anytime.
    - See month-over-month loan progress.
    - Updated optimization recommendations after each statement.
    - Email notifications for changes (e.g., “You paid more interest this month than usual”).

Supporting Scope

Admin & Ops

- View parsing success rate.
- Review failed documents.

Everything else is on Stripe.

Security & Privacy

- PDF storage encrypted; option to auto-delete after extraction.
- Avoid logging PII.
- Standard disclaimers and privacy policy hooks.

Analytics

- Track funnel: examples viewed → upload started → valid/invalid → payment → result view → subscription.

Architecture Outline

Backend

- API server (single service for V1, but should work fine under RPS of 20 at least).
- Worker queue for parsing and OCR tasks—scalable from the day zero.
- Integrations: Stripe, OCR/LLM provider (OpenAI for start), email provider (GMail).

Frontend

- Mobile-first web interface.
- Pages:
  - Landing + examples
  - Upload
  - Payment
  - Results
  - Dashboard (for subscribers)
  - Sign up with email/password (and all connected mechanics) or Google OAuth

Out of Scope for This Stage

- Native mobile apps.
- ARM logic or index-based modeling.
- Direct integrations with lenders.
- Automatic statement fetching from emails or banks.