SIT317 — Task 9.1D Business Plan (Individual)

Project: Budget Guardian — a student-first spending companion

Team: pigeon finance support

Team number: 14

Team member: Runqi Liu, Haoyu Liu, Wei Zhang, Haoxuan Yuan, Guanyu Qu, Junjie He, Zhou Liao

Author: Runqi Liu

Student ID: s225205084

Budget Guardian — 9.1D Business Plan

0. The Problem

We initially framed the problem as "students lack a practical tool to stick to budgets". After early interviews and class activities we realised most slip-ups happen in the last 30 seconds before checkout. We therefore pivoted:

- From after-the-fact tracking → to a pre-spend intercept at POS/checkout.
- From hard blocks → to a respectful default (24-hour cool-off, still reversible).
- From full open-banking at launch → to a phased path (Mock → CDR sandbox → Production).

Why this direction makes sense: Australia had >1.6m higher-education students in 2023; cash fell to ~13% of payments by number in 2022; mobile wallet share keeps rising; and most Australians access the internet via mobile — so a mobile-first, checkout-moment solution is appropriate.

Citations (as used in class slides): DoE 2023 student data | RBA Bulletin 2023 | RBA PSB 2024 | ACMA 2022–23

1. Summary

Budget Guardian reduces regret purchases by adding a respectful pause at the exact moment students are about to pay. The core is a small intercept card with a default 24-hour cool-off and a clear but slightly slower override (NFC + short pledge). We intentionally skip bank linking in the MVP to keep setup light, then graduate to CDR as trust builds.

2. Audience

Audience: AU uni students (domestic + international). The pain: late-night, low-value but frequent spends that compound. Students don't want another dashboard; they want a quick trade-off reminder that is easy to accept or ignore.

3. Benefits (what outcomes users get)

Benefit	How we deliver it	Measurement
Fewer regret purchases	Default cool-off + impact framing	≥70% first-intercept cool-off
Lower cognitive load	One-screen choice; neutral tone	SUS ≈80+
Stronger goal progress	Weekly snapshot & lightweight sharing	Share rate ≥20%
Fast adoption	No bank link in MVP	Activation within D0

4. Competitors & Differentiation

Most tools work after the spend. Our wedge is earlier timing and lower friction at first use. If the app prevents one regret per week, A$3.99/month is easy to justify.

Competitor	Strength	Gap at checkout	Our edge
YNAB	Discipline; planning	Post-spend; heavy setup	Point-of-decision with reversible default
PocketSmith	Forecasts	Not designed for last-second nudges	Goal-impact framing at pay-time
Frollo	CDR insights	Needs bank link early	No-link MVP → CDR upgrade
WeMoney	Credit & community	Tracking, not prevention	We reduce regret and remain compatible

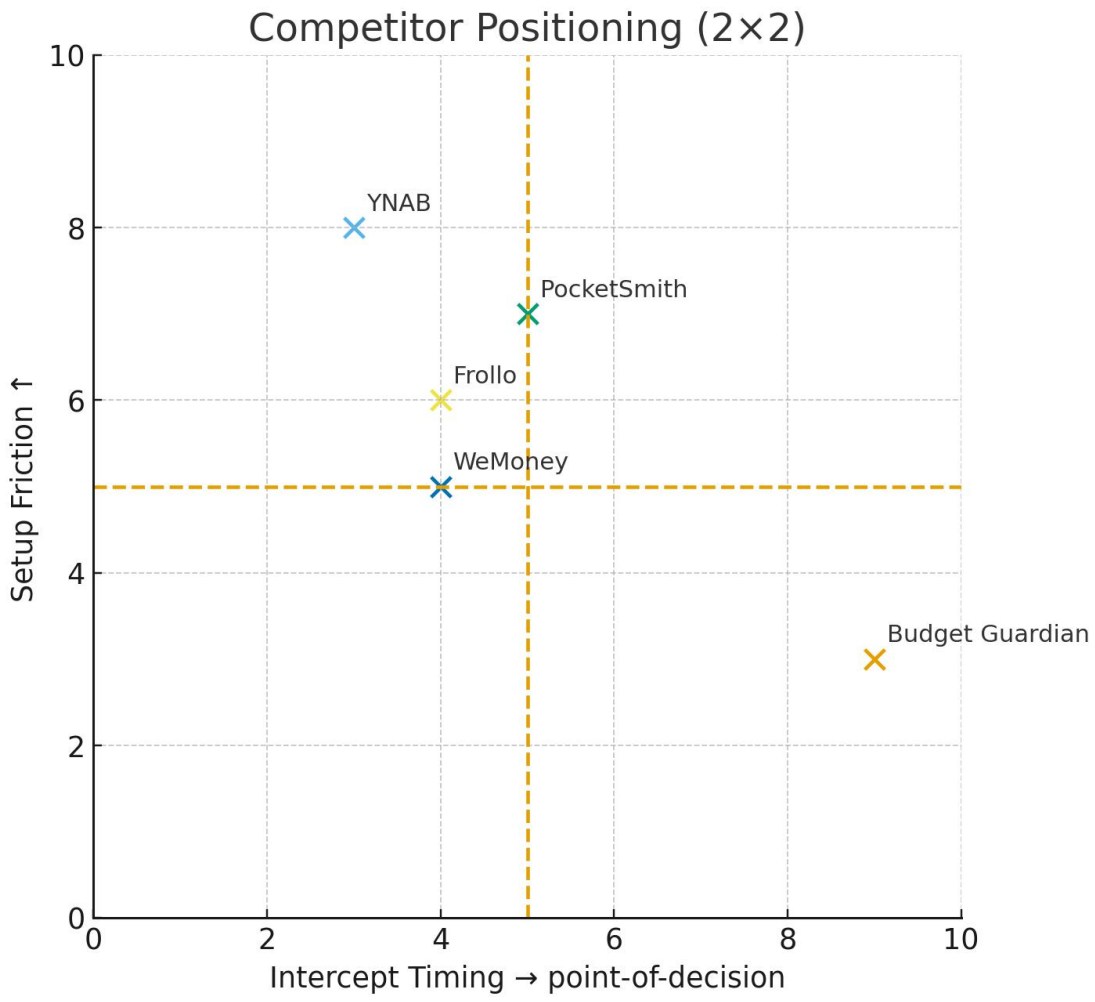
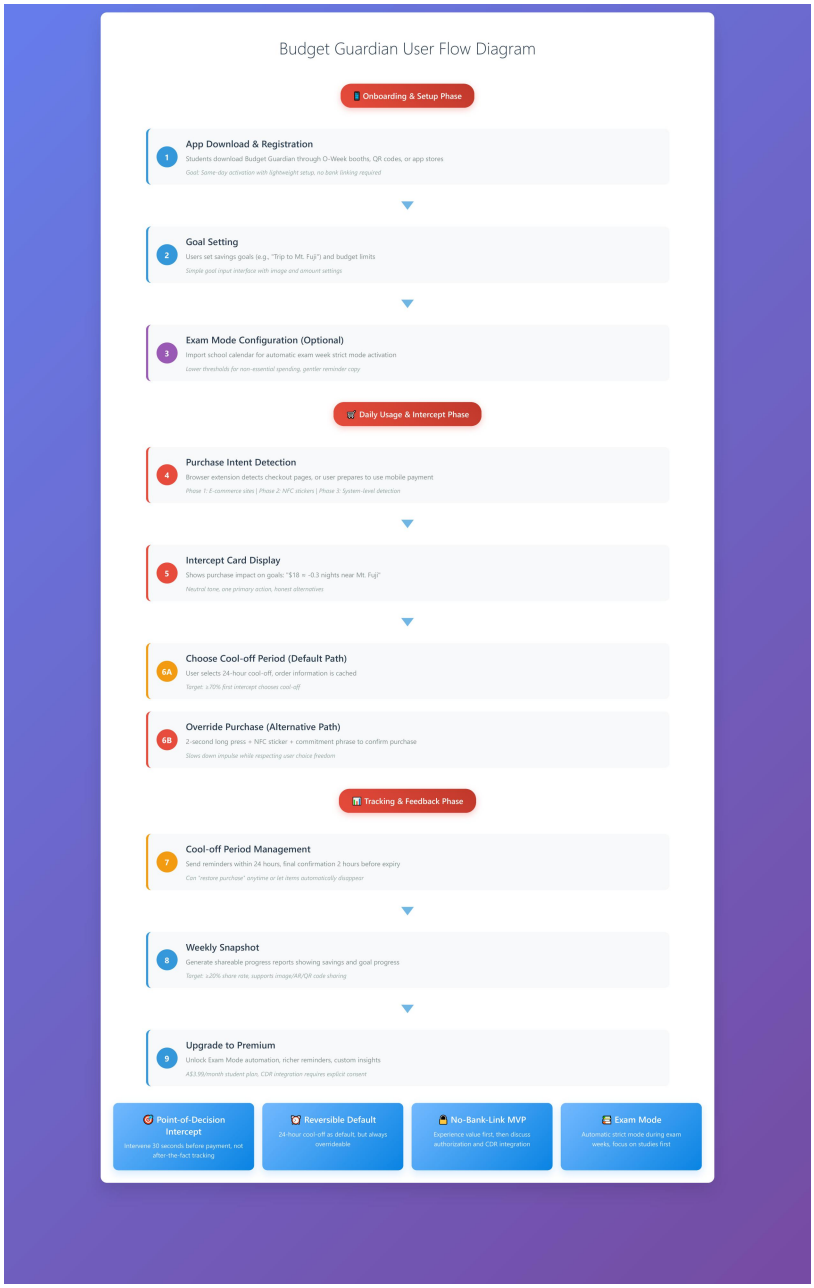


Figure 1. Competitor positioning (2×2).

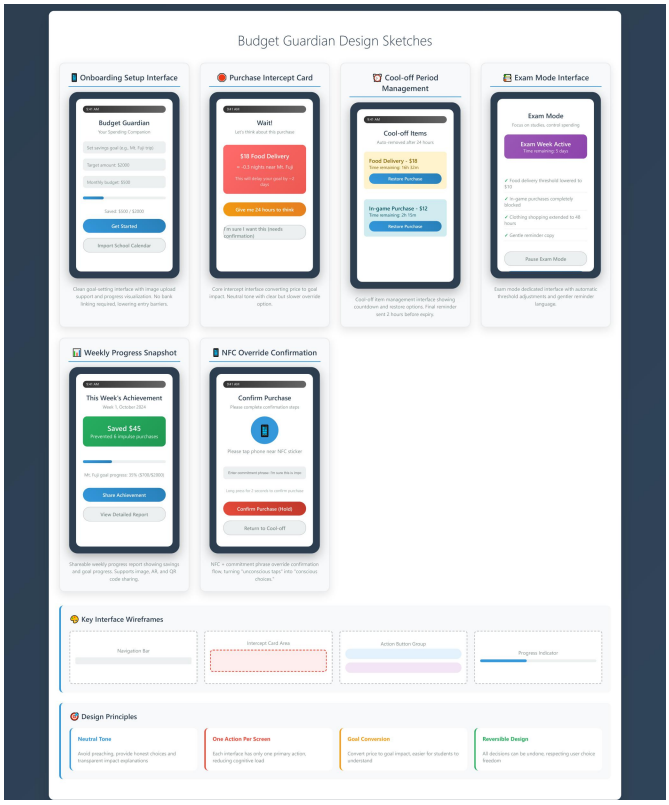
4. Solution Design

4.1 User Flow/Design Sketches/Prototype Evolution

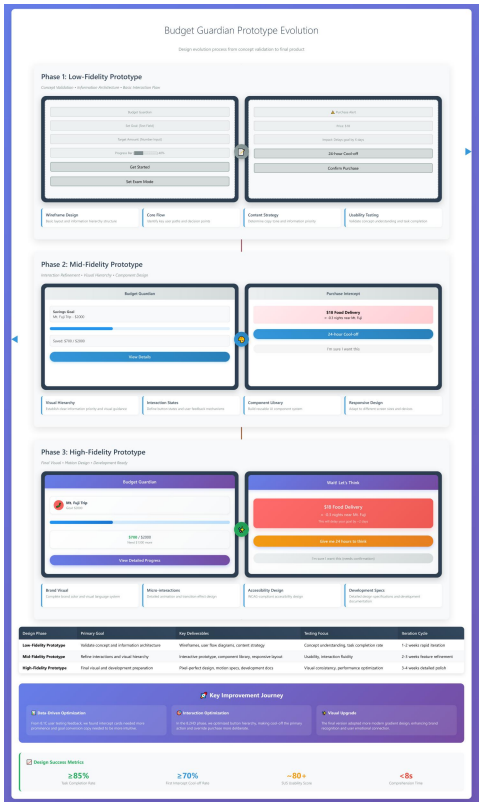
1. User Flow



2. Design Sketches

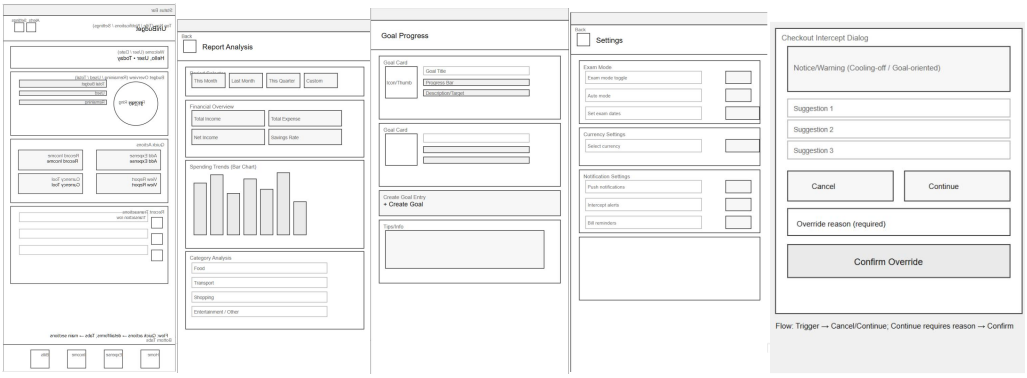


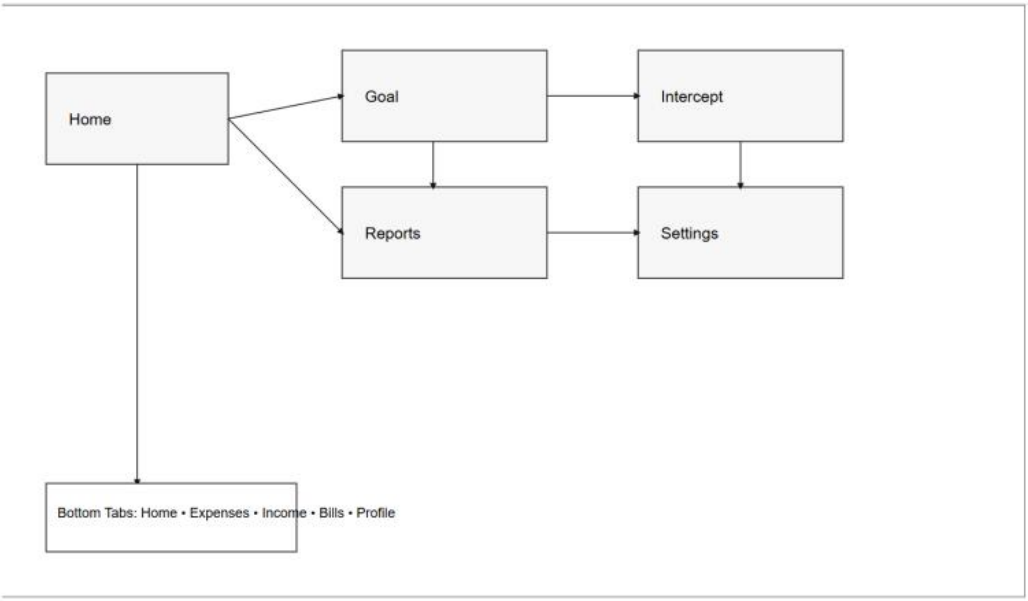
3. Prototype Evolution



4.2 Low- fidelity summary (from 8.1C)

8.1C established the information order and language. We kept the intercept quiet, promoted the goal conversion text, and ensured target tap sizes for small screens.





- Home → (cards/actions) → Reports / forms / feature pages
- Home / Goal / Reports interconnected via bottom tabs
- Goal → Settings (same return path)
- In the middle of checkout → Intercept → Cancel / Continue + Reason → Proceed or return

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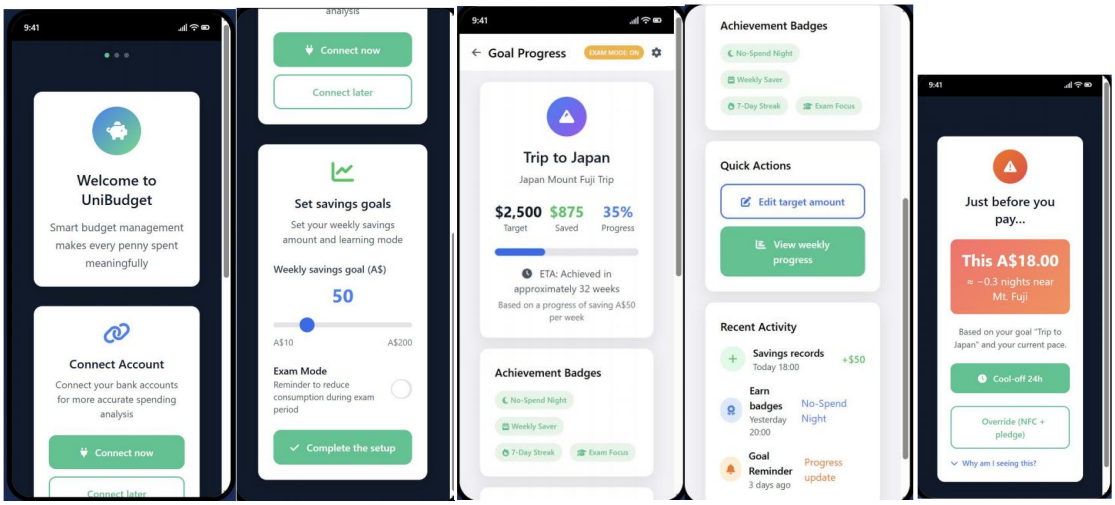
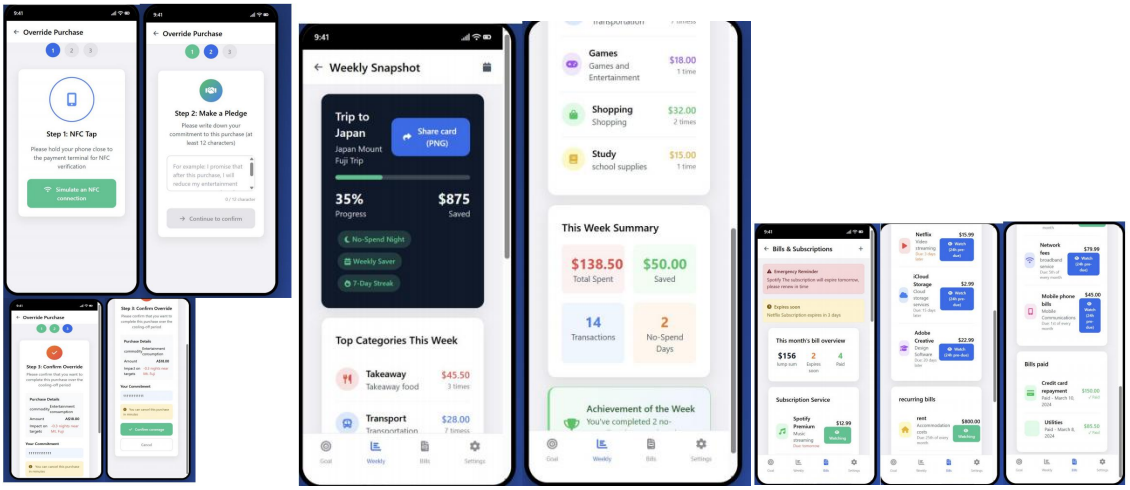
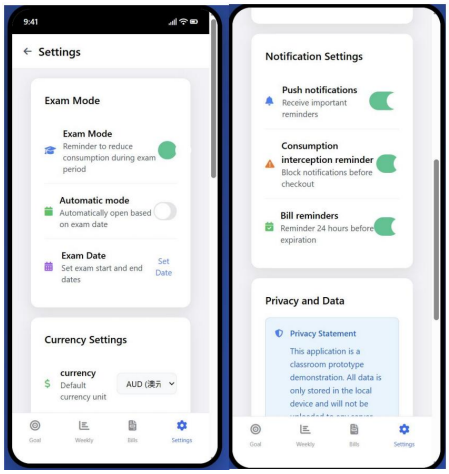
4.3 High- fidelity summary (from 8.2HD)

8.2HD brings realistic device frames, accessible colours and motion feedback. The cool-off is the primary action; override is visible but slower by design.

https://github.com/RUNQILIU-123/8.2HD







4.4 Project core and implement

1) Point-of-decision

Why

What students truly regret usually happens in the few seconds when their hand is already on the payment button. Post-purchase statistics are not very useful; changing behavior requires intervention before the purchase.

How to implement (phased, practical, and feasible)

Phase 1 (E-commerce focused, fastest to launch)
A Safari/Chrome browser extension monitors common 'checkout page' URL structures (/checkout, /cart, /payment, etc.) and displays a non-intrusive banner at the top of the page with a 'goal impact conversion + calm/still want to buy' intercept card.

Price and category capture: Read the amount displayed on the page; approximate the category using the site's categories/keywords (does not need to be 100% accurate).

Cooling-off period: After clicking 'calm down,' the extension caches the order information locally and sends it to the app, immediately triggering a local notification + calendar reminder. After 24 hours, the item can be 'restored to the cart' with one click.
Phase 2 (Offline scenarios, no system-level permissions needed)
Send students an inexpensive NFC sticker (to place on their wallet or phone case). When they really want to make a purchase, they must first tap the NFC sticker and enter a commitment phrase (10–30 characters) in the app—this is the 'slowing-down ritual.'

This avoids modifying Apple Pay/Google Pay system-level processes and bypasses permission risks.
Phase 3 (Optional enhancements)
Android devices can optionally use accessibility APIs to recognize cashier UIs; iOS continues to rely on Safari extensions + NFC stickers.

2) Default 24-hour cooling-off period

Why

Defaults can shape behavior; a "reversible default" helps users "pause first" while still respecting their freedom of choice.

How to implement

The cooling-off period is the main feature; implementation includes: recording timestamp + order snapshot; immediately scheduling a local notification + an in-app "cooling-off list".Send a gentle reminder 2 hours before expiration: "Still want it? If not, it will automatically disappear."If the user changes their mind, clicking "Restore Purchase" takes them directly back to the product page/shopping cart via deep link.

3) Override = NFC + a short commitment phrase

Why

It’s not about blocking, but about slowing things down. Such small rituals can turn "unconscious taps" into "conscious choices."

How to implement

E-commerce scenario: During override, require a 2-second long press + entering a commitment phrase (e.g., "I am sure this is important for me this week").Offline scenario: First tap NFC, then click to confirm, recording holding duration and number of words in the commitment (both counted as events).Always allow exit at any time; do not tightly integrate with the system payment process.

4) MVP Without Bank Connection

Why

High churn rate on the first day of bank connection; let students feel the value on the same day first, then talk about authorization.

How to Implement

For MVP, capturing amounts via expansion or manual input is enough to form an "intercept log + target progress."After Q3, only then open up CDR: automatic categorization, bill reminders, real monthly review; all CDR features require explicit consent and can be turned off at any time.

5) Exam Mode

Why

During exam week, attention is tight, and students are more sensitive to "non-essential" spending. Incorporating the time context into rules makes the effect more stable.

How to Implement

Provide one-click activation in settings; support importing school calendars (.ics) for automatic enablement.After activation:Thresholds for non-essential categories (takeout, in-game purchases, fast fashion) are lowered, making it easier to trigger a pause.Copy is softened: "Focus on exams first; the things you want won't run away."

4.5 Test Plan & KPI thresholds

Two loops: (1) moderated usability (n=6–8) to check comprehension under 8s, (2) two-campus pilot (n≈30 month one).

Targets: task success ≥85%, first-intercept cool-off ≥70%, SUS ≈80+. We'll log override reasons and ignored-card rates to improve copy and timing.

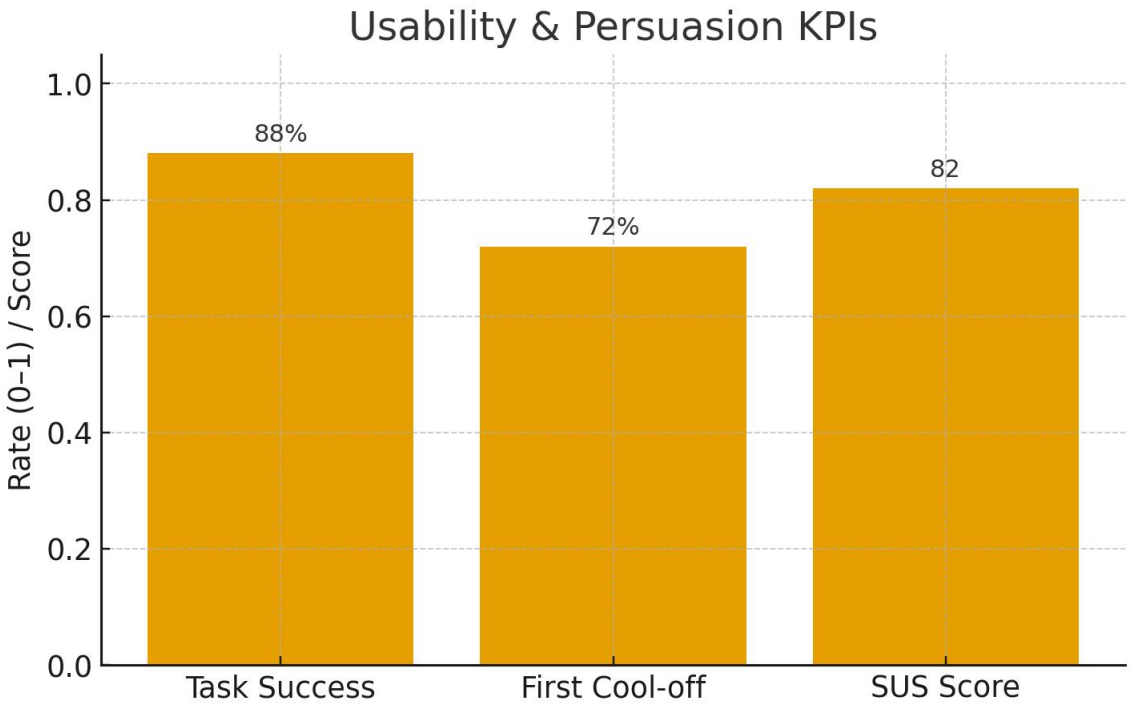


Figure 3. Usability & persuasion KPIs for MVP.

Metric	Definition	Target
Task success	Complete the assigned flow without help	≥85%
First cool-off	First intercept that results in cool-off	≥70%
SUS	System Usability Scale	~80+

5. Business Model

Freemium with a student plan at A$3.99/month. Free: intercepts, cool-offs, weekly snapshots. Paid: Exam Mode automation, richer reminders, custom insights. For campuses we offer small licensing bundles and a wellbeing dashboard. Long-term, optional CDR-powered add-ons (explicit consent) unlock automatic categorisation and bill reminders.

Component	Details
Segments	B2C students (primary); B2B2C campuses (secondary)
Pricing	A$3.99/mo student plan; campus bundles by seat
Channels	O-Week booths; student creators; partner newsletters; app stores
Costs	Design/engineering; analytics; creator

	content; hosting
Partners	Universities, student unions, wellbeing offices; later card issuers/CDR

6. Market — audience, personas, and sizing

Target: Australian university students (18–28; domestic & international), heavy mobile-wallet users; typical situations include late-night buys, social spending, and exam-week stress.

Personas:
• Liang (intl, 21): Apple Pay heavy user; late-night deliveries and in-app buys add up → the intercept + cool-off prevent one impulse/week.
• Sarah (local, 23): part-time job; saving for a trip; small purchases erode savings → "goal impact" framing makes trade-offs obvious.

Sizing assumptions (for planning): TAM ≈ 1.6m students; SAM ≈ 1.1m (smartphone + wallet users we can serve); SOM (Year 1) ≈ 50–80k via partner campuses and paid reach with 5–10% early adopters.

7. Go to Market, Pricing & Funding

Message: wellbeing during exam season, not finance jargon. Channels: O-Week booths (QR installs), short honest videos showing the intercept, and opt-in email from campus partners.

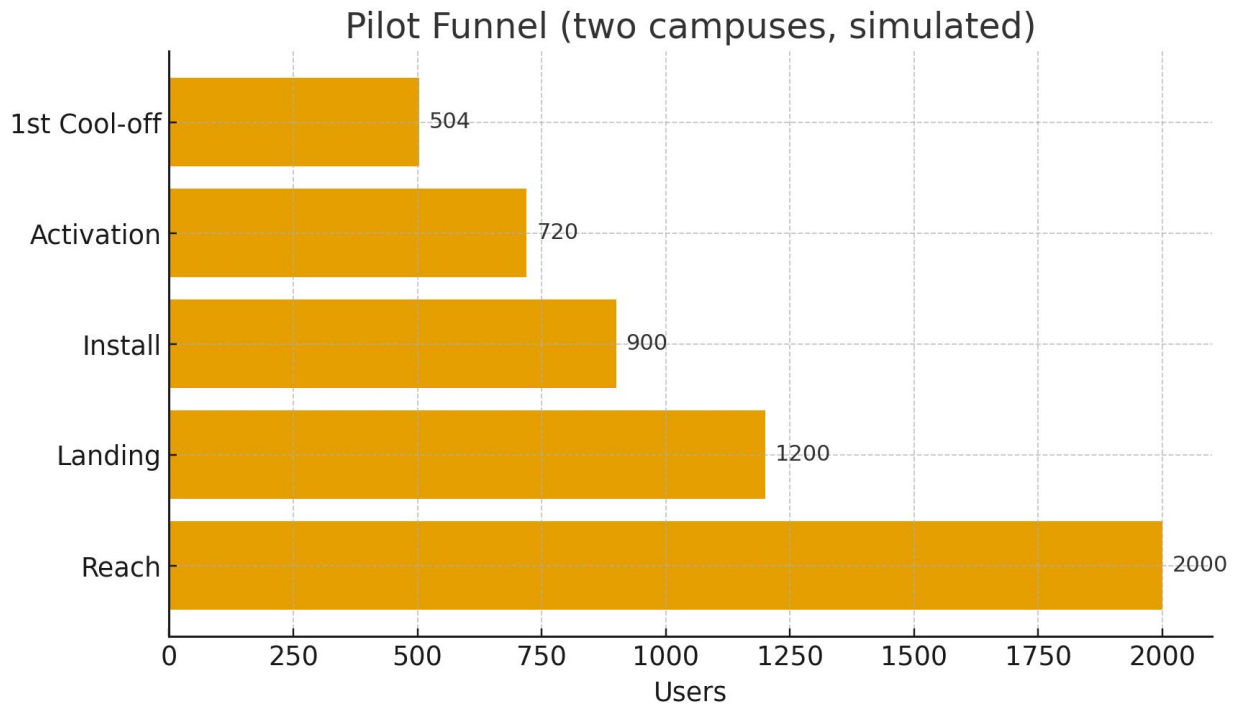


Figure 4. Pilot funnel (simulated counts) to size early experiments.

Quarter-one budget	Amount (A$)	Purpose
Materials & booth	2,000	Stands, flyers, QR signage

Student creators (UGC)	3,000	Short videos & testimonials
Campus media	2,000	Newsletter spots / screens
Infra & ops	1,000	Host, crash reporting, analytics

Pricing: Freemium + A$3.99/month student plan. Funding: small angel + university grants; later, campus licensing bundles.

8. Implementation plan (6 weeks to pilot)

Week	Scope	Acceptance criteria
1	Finalize hi-fi, copy, event schema	Design handoff docs + prototype clickable; events listed in tracker
2	Build intercept card + cool-off path	Card renders in <300ms; cool-off persisted locally
3	Add override (NFC + pledge) + Exam Mode	Hold-to-confirm works on test devices; Exam Mode toggles rules
4	Instrumentation + analytics	Events sent with session/user ids; dashboard shows KPIs
5	Campus pilot prep	Booth assets printed; onboarding survey ready
6	Pilot & iteration	Collect n≈30 sessions; hit ≥70% first cool-off or adjust copy

9. Technical architecture & data

Stack: React Native (or Flutter), Firebase Auth + Firestore, optional Functions for scheduled jobs; local storage for offline intercepts. Data model: users, goals, intercept_events, override_events, weekly_snapshots. Privacy: minimal PII; encrypt in transit and at rest; explicit consent for any data sharing or CDR features.

10. Analytics & experiment design

Event	When	Notes
intercept_shown	Card appears	Include price, merchant, category
cooloff_selected	User chooses cool-off	Include duration & reason if

		given
override_started	User taps override	Record NFC hold time
override_confirmed	Purchase after pledge	Capture pledge length (chars)
snapshot_shared	Weekly snapshot shared	Channel (image/AR/QR)

Primary experiment: copy A/B on intercept card. Stop rule: if first cool-off <60% after 100 intercepts, pause and revise framing.

11. Unit economics (pilot)

Month-one assumption: 2,000 reach → 1,200 landings → 900 installs → 720 activations → 504 first cool-offs. If 12% convert to paid after one week, ~108 paying × A$3.99 ≈ A$430 MRR.

12. Risks & mitigations

Risk	Impact	Mitigation
Nudge rejection	Uninstalls	Neutral tone; 'Why this?' transparency; reversible design
Low uptake	Pilot fails	Wellbeing partnerships; iterate copy; focus on exam weeks
Integration slippage	Delays	Keep no-link MVP; sandbox before prod CDR
Privacy concerns	Trust loss	Minimise PII; clear consent; local-first logic

13. Growth timeline & milestones

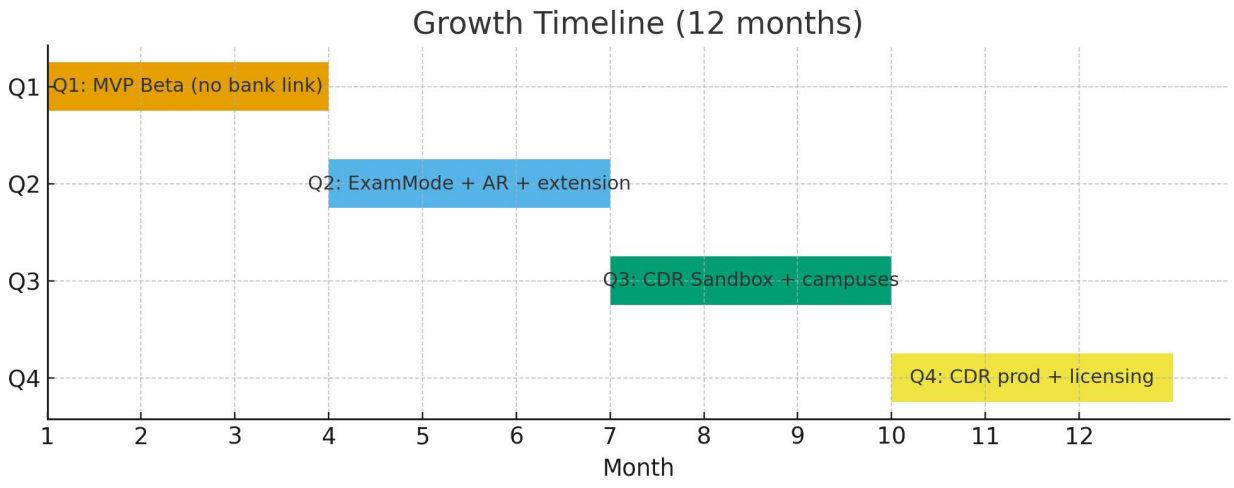


Figure 5. 12-month roadmap (no-link → CDR sandbox → CDR production).

Quarter	Milestone	Go/No-Go criteria
Q1	MVP + 2-campus pilot	First cool-off ≥70%; SUS ≥80; ≥500 weekly active
Q2	Exam Mode + AR + extension	Share rate ≥20%; cart page intercept latency <200ms
Q3	CDR sandbox + expand	Linked users ≥25% opt-in; complaint rate <1%
Q4	CDR production + licensing	Campus deal(s) signed; churn <4% monthly

14. Financing options (12- month view)

Source	Amount (indicative)	Use of funds
University innovation grant	A$10–20k	Pilot material, incentives, booths
Angel pre-seed	A$50–100k	2 part-time eng/design, analytics, creators
Subscription revenue	Growing with pilot	Infra & run-rate

15. Expansion opportunities

Features: AR goal visualisation; deeper Exam Mode; card-issuer partnerships; CDR production after sandbox. Customers: expand to early graduates. Markets: NZ and UK. Distribution: browser extensions and retailer checkout integrations.

16. Conclusion

We're solving one narrow moment well—the last seconds before spending. That choice makes the product easy to understand, easy to try, and hard to dislike. With a disciplined pilot and clear thresholds, this plan is ready to execute.

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