

## Scavenger 🍕

Making invisible campus food discoverable in real time

Midterm Validation Pitch | **Team 8:** Ryan Tetro · Ava Williams · Allie Marshall · Eddy  
Gonzalez

# Visibility Failure


---

# 41%


of college students face food insecurity

Every Day

Tons of catered leftovers tossed — not from lack of supply

 Flyers aren't searchable — trapped in the physical world

 Group chats only reach existing in-groups

 Instagram posts decay before students see them

This is a **data problem**, not a food problem

# BYU: The Perfect Pilot

---

# 37,205

students — Fall 2025 enrollment with hundreds of active clubs



**@byufreefood**

Instagram demand signal — proof the appetite already exists



**Service Culture**

Community orientation reduces stigma around free food



**On-Campus Team**

Rapid, live iteration and validation possible

# The "Ghost Chase" Problem

---

- 1 **Flyers aren't digitized** — trapped in the physical world, not searchable
- 2 **Insider bias** — announcements only reach existing in-groups
- 3 **No source of truth** — once food is gone, no one updates the record
- 4 **Information decays instantly** — by the time you hear, it's already gone

Students arrive to empty rooms. The food was there — they just never knew. **The Ghost Chase.**

# Our Solution: The Scavenger Loop

---



**Upload** Take a photo of any flyer on campus



**Extract** AI pulls time, location, and food type automatically



**Broadcast** Post appears on the real-time campus-wide feed



**Verify** "Mark as Gone" prevents ghost chases instantly



**No accounts** — browse like Instagram



**60-second** post flow



**Real-time sync** via Firestore

# The Core Hypothesis

"If we make food discovery **instant** and browsing **anonymous**, students will repeatedly use Scavenger weekly."



**< 60 sec** to post leftovers



**No login** to browse the feed



**30-min window** for students to act



**Weekly volume** to sustain the feed

# Voice of the Customer

---

"Any exposure is good exposure. I'm fine with people coming just for food if they sit through the event."

**Kendall Castellaw**

Past Finance Society President · Marriott School

"If it got more people to go to the club, then maybe. Sure — no harm in it."

**Carson Fellows**

Current Management Consulting President

Liability = non-issue · Motivation = **recruitment**, not waste reduction · Friction reduction is the unlock

# What We Learned

Assumption	Status	Evidence
70%+ of events have physical flyers	⚠️ At Risk	Tanner is mostly digital — non-Tanner unknown, more interviews needed
Leftover supply is reliable	⚠️ At Risk	Both clubs rarely have leftovers; orders conservative
Organizers will post willingly	⚠️ Nuanced	Won't go out of their way — recruitment framing required (2/2)
Liability is a supply-side blocker	✅ Falsified	Zero concerns — 2 independent interviews
Food events are frequent	✅ Confirmed	Both clubs have food at events regularly

## Falsification Test #1

*Hypothesis:* Liability would block organizers from posting

**Result: Decisively falsified** — zero concerns across 2 independent interviews

⚡ **The pivot signal:** Feed must surface food available *during* events, not just post-event scraps. Posting must be near-effortless or supply won't participate.



# Competitive Mapping

---

Solution

Target

Post Friction

Campus UX

Olio

Community

Manual

Generic

Too Good To Go

Retail

Semi-Structured

Paid

Group Chats

Social

Manual

# System & Leverage Points

📱 **Next.js · TypeScript · React**



▲ **Vercel · Next.js API**



✨ **Gemini**



pending



**Firestore**



active



**Storage**



active

- 1 **Digitize instantly** — Gemini removes ingestion friction (30× cheaper than GPT-4o)
- 2 **Real-time truth** — Firestore listeners provide the "Now" view
- 3 **Trust mechanism** — "Mark as Gone" eliminates ghost chases

# Built & Tested

## ✅ Shipped

Homepage · Leaflet map · feed preview

Feed + event detail pages

Upload API: Storage → Firestore

Upload form · Structured logger

## 🕒 In Progress

Gemini extraction · "Mark as Gone" ·

`onSnapshot`

▶ Live Demo

```
[Scavenger][info]
```

```
{"event":"upload-success",...}
```

📋 3 documented build cycles in changelog

📦 7 commits · `feat:` / `chore:` prefixes

🧪 `scripts/test.sh` → lint → build →  
`logs/\*.log`

# The Ask

---



**Done** — Two interviews completed; recruitment framing and falsification confirmed

WEEK 2

Wire Gemini · confirmation form · demo becomes real

WEEK 3

Add "Mark as Gone" + `onSnapshot` · end-to-end pipeline complete

WK 4–5

Deploy to Vercel · 5–10 alpha testers · seed 10–15 real events

GATE

**If traction:** Expand to more buildings · add Slack/email ingestion · gamify organizer posting

**If supply fails:** Narrow to 2–3 high-volume clubs · add SMS/push alerts · incentivize with food access perks

GitHub: `avareesew/food_finder` · Deliverables: `aiDocs/prd.md` · `aiDocs/architecture.md` ·  
`aiDocs/changelog.md`

# Appendix

---

Supporting reference material





# A — Personas

---

- **Tyler (Demand)** — Needs stigma-free, instant, anonymous food discovery on the go  
*Product decision: no login required*
- **Sarah (Supply)** — Wants club attendance + less waste guilt. Posting must be fast.  
*Product decision: FDIA 2023 disclaimer built into post flow*
- **Marcus (Advocate)** — Wants sustainability impact + easy floor broadcast  
*Product decision: quantified impact visible in the feed*

## B — Founding Hypothesis: Full Assumption Set

---

Assumption	Test	Status
Organizers post when friction < 60 sec	Club president interviews	 2/3+ done
Students act on alerts within 30 min	Alpha tester tracking — Weeks 4–5	 Pending
No login is an adoption unlock	No-auth MVP; measure conversion	 Pending
Enough events to sustain daily feed	Feed volume audit during alpha	 Pending

# C — System Map

---

## Club Events

~50/week at BYU



## Leftover Food

Available



## Scavenger

★ Leverage Point



## Real-Time Feed

+ Campus Map





## Students in Need

41% food insecure

**Without Scavenger today:** Food →  Wasted or informally shared — no real-time channel



# D — Differentiation Grid

	High Friction	Low Friction →
Campus-Specific ↑	 Campus Food Pantry — fixed hours, application required	★ <b>Scavenger</b> — free, anonymous, real-time
Generic	<i>(no viable option)</i>	 Too Good To Go · Instagram · Group Chats

**X-axis:** Consumer access barrier · **Y-axis:** Campus food relevance

“ The top-right quadrant is unoccupied. We own the intersection of low friction + campus-specific. ”

## E — Success & Failure Framework

---

Metric	Target	Failure Trigger	Response
Posts / week	30+	< 10 by Week 5	Club outreach · incentive experiment
Unique visitors	150+	—	Social media push
<b>Weekly repeat users ★</b>	<b>25%</b>	<b>&lt; 15% after Week 4</b>	<b>Improve CTA · RA partnerships</b>
Ghost chase rate	< 5%	> 10%	Tighten human verification

**Week 5 alpha gate:** 70%+ of testers say "yes, I would use this regularly" — hard go/no-go

# F — Documentation Pipeline

---

- `aiDocs/prd.md` — personas, competitive table, success/failure criteria, pivot plans
- `aiDocs/architecture.md` — verified API docs, tech decisions log with alternatives considered
- `aiDocs/changelog.md` — every update logged with test artifacts and customer discovery
- `ai/` **gitignored** — raw working artifacts stay local; only decisions surface to tracked docs

“ Raw notes → `ai/notes/` → decisions → `aiDocs/changelog.md` → code ”

# G — Structured Logging & CLI Pipeline

```
[Scavenger][info] {"timestamp":"2026-02-24T18:35:11.000Z","level":"info","event":"upload-success","details":{"flyerId":"abc123","storagePath":"flyers/..."}}
```

## scripts/test.sh

→

```
npm run lint
```

→

```
next build --webpack
```

→

```
logs/test-TIMESTAMP.log
```

→

## aiDocs/changelog.md

3 documented build cycles · 7 commits · `architecture.md` revised across 3 sessions · 18 files touched by logging layer

# H — Alternative Problems We Rejected

---



**AI Recovery Coach** — AI chatbot with guardrails for post-surgery/pregnancy recovery, integrated with biometric wearables

*Rejected:* High regulatory risk, healthcare liability, and integration complexity put MVP far out of reach in this timeframe



**Dance Studio Attendance Manager** — Text-based system to auto-update attendance, issue make-up credits, enforce policies

*Rejected:* Narrow niche, low team familiarity, no direct access to target customers for fast validation



**Syllabus Parser** — Extract every deadline from uploaded course PDFs and push to Google Calendar automatically

*Rejected:* Solves a friction problem, not a real pain — students already have multiple calendar tools; adoption would be low

**Why Scavenger won:** On-campus team = fast iteration · existing demand signal (@byufreefood)  
· tractable MVP · real emotional pain point we've all felt