Court Scout — Reducing coordination friction in fragmented tennis court booking systems

Case Study · Solo PM / Builder · Consumer Coordination Problem

The Problem

Players waste time and drop plans because court availability is fragmented, unreliable, and hard to coordinate around.

Fragmented Systems

Each court has a separate website, UX, and availability view.

Constant Manual Checking

Players repeatedly refresh multiple sites to catch open slots.

Coordination Breakdown

Groups struggle to converge on a court before slots are taken.

Unreliable Signals

Visible availability disappears quickly; timing is unpredictable.

User Insight

Players don’t struggle to find courts.
They struggle to know when a plan will actually work.

Insight 1 —Uncertainty kills momentum

If availability feels unreliable, players delay decisions or give up.

Insight 2 — Trust matters more than options

One bad signal is worse than no signal.

Insight 3 —Coordination fails quietly

Plans don’t fail loudly — they just never happen.

Value Hypothesis

If players receive reliable, real-time signals about court availability, they will commit to plans faster and abandon fewer games — even without changing how courts are booked.

Reliability beats completeness

One trustworthy signal is more valuable than many uncertain ones.

Timing drives coordination

Plans succeed when availability aligns with group decision windows.

Reduced checking increases follow-through

Fewer manual refreshes → higher plan completion.

Existing Solutions

The failure isn’t access to courts — it’s the lack of a reliable, shared availability signal.

Existing Approach	What It Solves	Where It Breaks	Why It Fails Users
Individual court websites	Direct booking	Fragmented UX, separate logins	Users must manually check multiple sites
Google Maps / Search	Discovery of courts	No real-time availability	Availability signals are unreliable
WhatsApp / group chats	Player coordination	No shared source of truth	Plans stall while people “wait to see”
Spin / RaquetPal	Finding players	No booking visibility	Matching ≠ playable plan
Manual checking	Full control	Time-consuming, unreliable	Leads to drop-offs and abandoned plans

Solution Exploration

Option	Coordination Value	Adoption Friction	Risk	Verdict
Manual Guidance	Low	Low	Low	Reject
Social Layer	Medium	High	Medium	Reject
Full Automation	High	Medium	High	Reject
Aggregation + Alerts	High	Low	Low–Medium	MVP

Aggregation + Alerts

A coordination layer that:

- aggregates court availability across sources
- presents it in a unified, scannable view
- notifies users when slots open

Full Automation

Automatically monitor availability and book courts on behalf of users when conditions are met.

Social Layer

A coordination-first product focused on group chats, availability polling, and shared planning workflows

Manual Guidance

Lightweight guidance to help users coordinate more efficiently

MVP Definition

MVP Value Hypothesis

If players receive reliable availability signals and alerts, they can successfully coordinate games without constant manual checking.

What the MVP Includes

- Court availability aggregation (read-only)
- Periodic scraping (every ~20 minutes)
- Email alerts when slots open
- Map-based court discovery
- Lightweight email signup (no accounts)

What the MVP Explicitly Excludes

- In-app booking
- Payments
- Real-time sync
- Group scheduling flows
- Messaging / chat
- Calendar integration
- Why: High complexity, low learning value for initial hypothesis.

Key Tradeoffs

Accuracy over completeness
Better to track fewer courts reliably than many unreliably.

Signals over workflows
Alerts drive action better than dashboards.

Speed over polish
MVP optimized for learning, not aesthetics.

What I Built (Final Solution)

A lightweight coordination layer that aggregates tennis court availability and notifies players when a playable slot opens — without changing how courts are booked.

Aggregated Court Availability

- Periodically scrapes multiple independent court websites
- Normalizes availability into a single, scannable view

Why it matters:
Eliminates manual cross-checking across fragmented systems.

Map-Based Court Discovery

- Visual view of courts relative to user location
- Makes geographic tradeoffs obvious during planning

Why it matters:
Helps groups converge on practical options faster.

Availability Alerts (Email)

Users receive notifications when relevant slots open
Shifts effort from monitoring → decision-making

Why it matters:
Alerts replace constant refreshing and reduce missed opportunities.

Lightweight Signup

- Email-only, no accounts or profiles
- Enables alerts and early access

Why it matters:
Minimizes activation friction and supports fast learning.

Success Metrics

Primary Success Metric

- Time to Successful Booking
- Definition: The time between a player starting to look for a court and identifying a bookable slot they can act on.
- Why this matters: This directly measures whether coordination friction is being reduced.

Alert to Booking Conversion

Percentage of alerts that result in a successful booking attempt.

What it validates:

Trust in availability signals

Timeliness of alerts

Repeat Usage Across Weeks

Whether users return to use Court Sync across multiple planning cycles.

What it validates:

Ongoing coordination value

Not just novelty or curiosity

Search to Alert Setup Drop-Off

Users who view availability but do not set alerts.

What it diagnoses:

Whether aggregation alone is sufficient

Whether alert value is clear

Where users hesitate in the flow

Guardrail Metrics

Availability accuracy

Alert latency

False positives / missed slots

Key Learnings & Reflections

Uncertainty matters more than choice

I assumed more options would help. In reality, unreliable availability caused hesitation and abandoned plans.
Takeaway: Reducing uncertainty creates more value than increasing optionality.

Trust is a user experience requirement

A single missed or inaccurate alert erodes confidence faster than multiple successes.
Takeaway: Reliability must be treated as UX, not just technical quality.

Passive value beats active engagement

The highest value moments happened when users didn’t open the product at all.
Takeaway: Great coordination tools remove work instead of creating engagement loops.

Fragmentation silently shifts work to users

Disconnected systems push coordination cost onto the most motivated person in a group.
Takeaway: The opportunity is absorbing coordination cost, not replacing platforms.

Links & Artifacts

🌐 Landing Page (demo + explanation)

https://courtscout.vercel.app

📄 Full Case Study (PDF / portfolio)

https://portfolio-assets-arch.s3.eu-west-2.amazonaws.com/courtscout/Court+Scout-1pager.pdf

👤 Portfolio Website

https://www.arjunportfolio.xyz

Full Case Study Long Format

https://portfolio-assets-arch.s3.eu-west-2.amazonaws.com/courtscout/CourtScout+longformat.pdf