HACK4HACK CREW HIRING CHALLENGE 2026 | PROBLEM STATEMENT 1

Post Sheet: Ability & Purpose Crew Network

Race-Proof SQLite WAL Seat Authority, Goal-Conditioned Schedule Solver & Offline Peer Relay

RACE-PROOF CONCURRENCY

50 simultaneous claimants -> 1 HTTP 200 winner, 49 HTTP 409 rejections in 3.5 ms (BEGIN IMMEDIATE WAL + Python SQLite race oracle).

SCALE & LATENCY SLA

10,000 users & 2,000 teams seeded in 13.4s; 100-concurrent-client /board p95 = 36.68 ms (5.4x faster than 200 ms target, 0 errors).

GOAL-FIRST R5 SOLVER

Lawler/Jackson EDD critical-path DAG scheduler, async UTC baton-pass matching, Hall contention repair & Belnap 4-valued Wildcard Omega.

OFFLINE RELAY & ACCESSIBILITY

Scoped 10-min HMAC relay warrants via teammate Mateo + Cognitive Relief Rendering (CRR) & Affordalume 0-idle-FPS WCAG 2.2 AA / 508 UI.

Builder: Melvin Jackson (Hot Springs, AR) | 183 / 183 Automated Checks Passing (124 Node + 59 Kernel Gates)

Live App: https://postsheet-h4h-ps1-production.up.railway.app | Repo: https://github.com/mjcustomcomputers-dotcom/postsheet-h4h-ps1

ARCHITECTURE, DATA MODEL, RACE PREVENTION, TRADE-OFFS & ONE MORE WEEK

Engineering Design Overview (PS1 Rubric Summary)

1. Normalized 6-Table SQLite WAL Data Model (Layer A + Layer B)

events (min/max) | teams (leader_id, max_size, version) | membership (PK(team_id,user_id), UNIQUE(event_id,user_id)) | invites (SHA-256 code_hash, expires_at, used_by) | operations (event_id, actor_id, op_id) | audit + peer_receipts.

2. How Seat & Invite Races Are Prevented

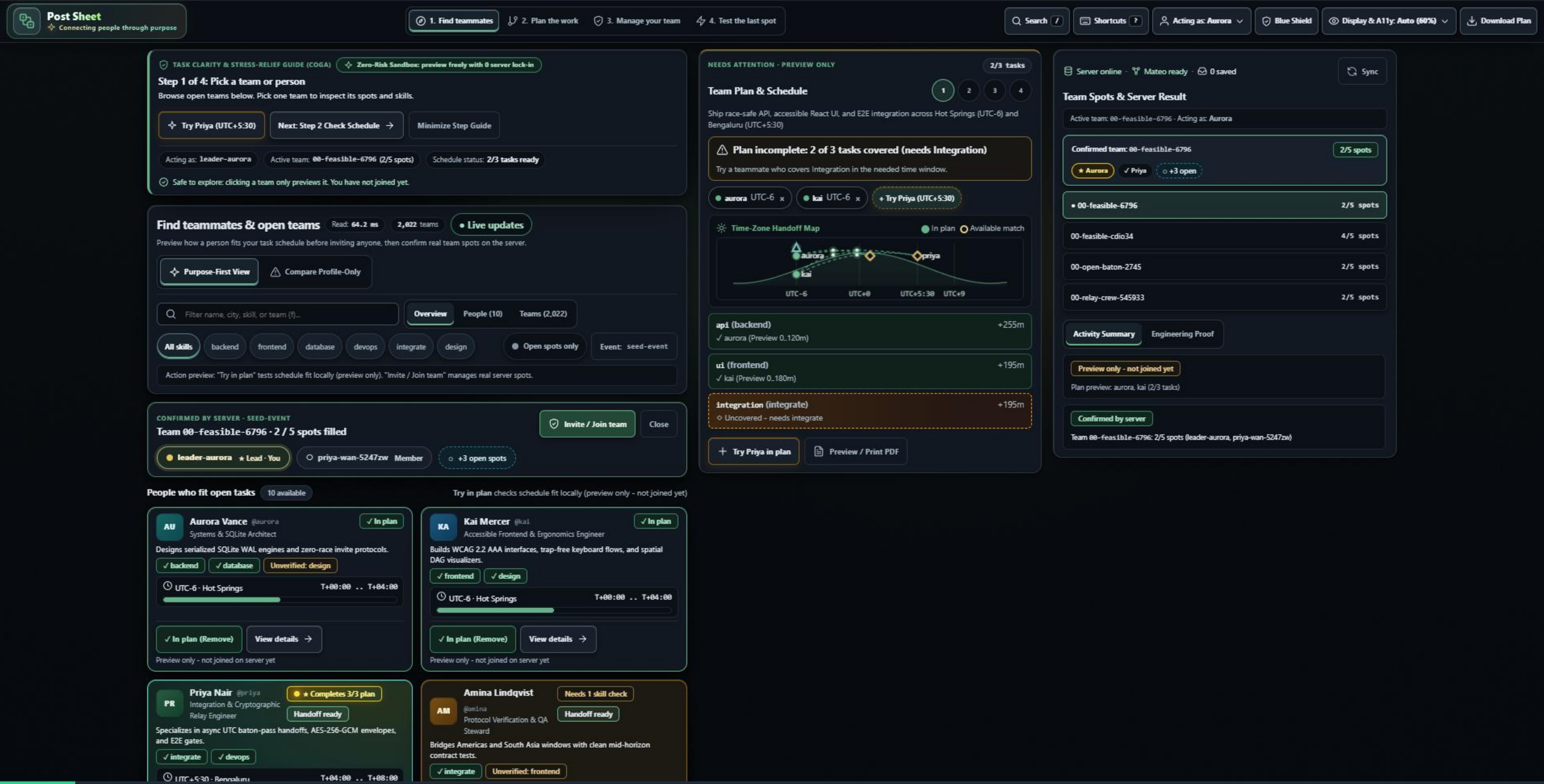
All mutations execute inside synchronous SQLite BEGIN IMMEDIATE WAL transactions. Acquiring the reserved write lock upfront eliminates async read-then-write TOCTOU gaps: 50 parallel final-seat claims yield 1 winner and 49 HTTP 409 TEAM_FULL responses; server clocks enforce invite expiry.

3. Key Architectural Trade-Offs

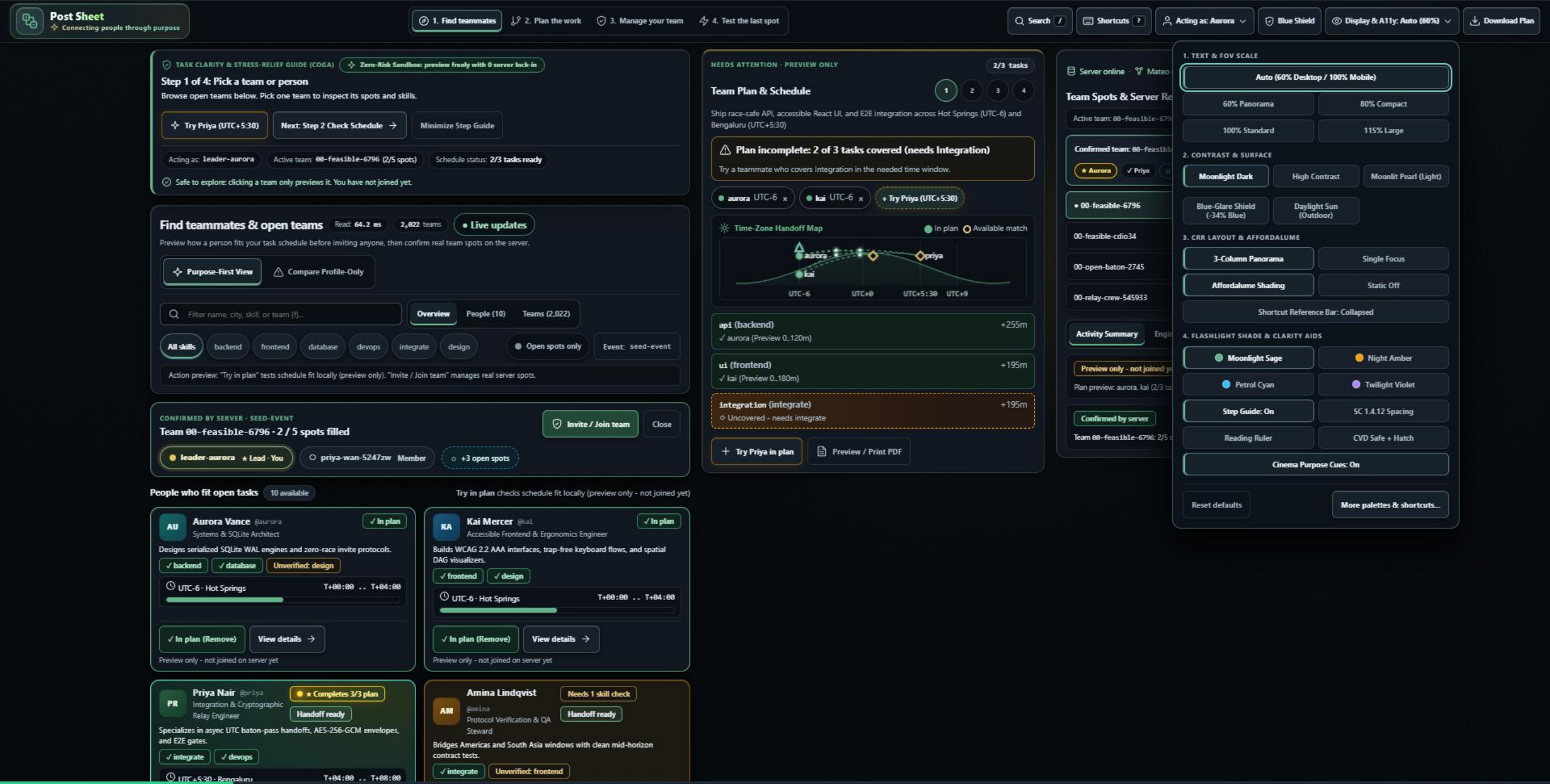
Single-writer SQLite WAL trades intra-event multi-node write sharding for strict serializability, zero external lock-service hops, and 36.68 ms p95 board reads across 100 concurrent clients. SSE replaces heavy WebSocket state; demand-driven WebGL2 Affordalume runs at 0 idle GPU frames/sec.

4. What I Would Do With One More Week

(a) Horizontal per-event sharding onto isolated SQLite WAL shards / Cloudflare Durable Objects for multi-thousand-event scale;
(b) Continuous Litestream S3/R2 WAL replication + rolling SHA-256 Merkle audit checkpoints; (c) iCal busy-window sync & WebAuthn relay warrants.



Melvin Jackson (Post Sheet, Hot Springs, AR): Race-proof, goal-conditioned team formation engine built for Hack4Hack PS1.



Engineered for low visual glare and calm focus: Affordalume matte WebGL2 task shading rests at 0 idle GPU frames per second.

Post Sheet
Connecting people through purpose

1. Find teammates | 2. Plan the work | 3. Manage your team | 4. Test the last spot

Search / | Shortcuts ? | Acting as: Aurora | Blue Shield | Display & A11y: Auto (60%) | Download Plan

TASK CLARITY & STRESS-RELIEF GUIDE (COGA)

Weight-Off Solver: instant timezone math, 0 commitment

Next: Step 3 Claim Team Spot →

Tried Priya Nair in plan (preview only) -> Plan works: all tasks and hours line up

Step 2 of 4: Check if hours and skills fit

Test if your team has the right skills and waking hours to finish every task on time.

Acting as: `leader-aurora` | Active team: `00-feasible-6796` (2/5 spots) | Schedule status: ★ 3/3 tasks ready

Local preview only: testing schedules here never locks spots on the server.

Global Time-Zone Handoff Map (UTC-12 to UTC+14)

Traces clean handoffs from Shift 1 (0..240m) to Shift 2 (240..480m, e.g. Priya in Bengaluru UTC+5:30).

In team plan | Handoff match | Calm at Rest (850ms Handoff)



STEP 2 - SCHEDULE, TIME ZONES & SKILL FIT

Plan the work

List the tasks, check everyone's available hours across time zones, and see who completes the schedule without replacing current teammates.

Preview / Print Plan | Text / JSON | Check plan & suggestions

EXAMPLE 1 — Active
1. Different time zones, clean handoff
Hot Springs (UTC-6) + Bengaluru (UTC+5:30) - 0m overlap, finishes early

EXAMPLE 2
2. One person double-booked on two tasks
Both skills exist on paper, yet two simultaneous 2-hour tasks overload one person

EXAMPLE 3
3. Unverified skill: when backup covers it vs. quick check
Asks zero questions when a backup covers the task, or prompts one quick check

EXAMPLE 4
4. Unblock early setup without replacing teammates
Unblock a blocked 3-person team by adding early setup support

1. Different time zones, clean handoff: Aurora and Kai work hours 0..4 in Arkansas (UTC-6). Priya works hours 4..8 in Bengaluru (UTC+5:30) with zero simultaneous overlap, yet task dependencies hand off cleanly so adding Priya finishes all 3 tasks with 2.5 hours to spare.

PLAN CHECK RESULT (PREVIEW UNTIL TEAM IS CREATED ON SERVER)

Plan works: all tasks and hours line up | 3 of 3 tasks covered | Engineering Proof

3/3 tasks

Team Plan & Schedule

Ship race-safe API, accessible React UI, and E2E integration across Hot Springs (UTC-6) and Bengaluru (UTC+5:30)

Plan works: all tasks and hours line up
All 3 of 3 tasks are covered within the deadline.

aurora UTC-6 × | kai UTC-6 × | priya UTC+5:30 ×

Time-Zone Handoff Map — In plan | Available match



`api` (backend) +255m
✓ aurora (0..120m)

`ui` (frontend) +195m
✓ kai (0..180m)

`integration` (integrate) +195m
✓ priya (240..330m)

Create team & invite | Preview / Print PDF

Server online · Mateo ready · 0 saved | Sync

Team Spots & Server Result

Active team: `00-feasible-6796` · Acting as: Aurora

Confirmed team: `00-feasible-6796` 2/5 spots
★ Aurora | ✓ Priya | ○ +3 open

- `00-feasible-6796` 2/5 spots
- `00-feasible-cdio34` 4/5 spots
- `00-open-baton-2745` 2/5 spots
- `00-relay-crew-545933` 2/5 spots

Activity Summary | Engineering Proof

Preview only - not joined yet
Plan preview: aurora, kai, priya (3/3 tasks)

Confirmed by server
Team `00-feasible-6796`: 2/5 spots (leader-aurora, priya-wan-5247zw)

Adding Priya triggers the Lawler/Jackson backward critical-path scheduler: UTC-6 finishes API and UI right as UTC+5:30 starts Integration.

Post Sheet
Connecting people through purpose

1. Find teammates | 2. Plan the work | 3. Manage your team | 4. Test the last spot

Search / | Shortcuts ? | Acting as: Aurora | Blue Shield | Display & A11y: Auto (60%) | Download Plan

TASK CLARITY & STRESS-RELIEF GUIDE (COGA)

Weight-Off Solver: instant timezone math, 0 commitment

Next: Step 3 Claim Team Spot

Tried Mateo Alvarez in plan (preview only) -> Plan works: all tasks and hours line up

Step 2 of 4: Check if hours and skills fit

Test if your team has the right skills and waking hours to finish every task on time.

Acting as: leader-aurora | Active team: 00-feasible-6796 (2/5 spots) | Schedule status: ★ 2/2 tasks ready

Local preview only: testing schedules here never locks spots on the server.

Global Time-Zone Handoff Map (UTC-12 to UTC+14)

Traces clean handoffs from Shift 1 (0..240m) to Shift 2 (240..480m, e.g. Priya in Bengaluru UTC+5:30).

In team plan | Handoff match | Calm at Rest (850ms Handoff)



STEP 2 - SCHEDULE, TIME ZONES & SKILL FIT

Plan the work

List the tasks, check everyone's available hours across time zones, and see who completes the schedule without replacing current teammates.

Preview / Print Plan | Text / JSON | Check plan & suggestions

EXAMPLE 1
1. Different time zones, clean handoff
Hot Springs (UTC-6) + Bengaluru (UTC+5:30) - 0m overlap, finishes early

EXAMPLE 2 Active
2. One person double-booked on two tasks
Both skills exist on paper, yet two simultaneous 2-hour tasks overload one person

EXAMPLE 3
3. Unverified skill: when backup covers it vs. quick check
Asks zero questions when a backup covers the task, or prompts one quick check

EXAMPLE 4
4. Unblock early setup without replacing teammates
Unlock a blocked 3-person team by adding early setup support

2. One person double-booked on two tasks: Aurora and Kai appear to cover every skill tag (backend, database, frontend). Yet api-cutover and schema-migration both need 2 hours inside a 2-hour window, double-booking Aurora. Adding Mateo covers database without replacing anyone.

PLAN CHECK RESULT (PREVIEW UNTIL TEAM IS CREATED ON SERVER)

Plan works: all tasks and hours line up | 2 of 2 tasks covered | Engineering Proof

2/2 tasks

Team Plan & Schedule

Execute simultaneous zero-downtime API cutover and SQLite WAL schema migration within a 2-hour window

Plan works: all tasks and hours line up

All 2 of 2 tasks are covered within the deadline.

aurora UTC-6 × | kai UTC-6 × | mateo UTC-5 ×

Time-Zone Handoff Map | In plan | Available match



api-cutover (backend) — 0m buffer
✓ aurora (0..120m)

schema-migration (database) — 0m buffer
✓ mateo (0..120m)

Create team & invite | Preview / Print PDF

Server online · Mateo ready · 0 saved | Sync

Team Spots & Server Result

Active team: 00-feasible-6796 · Acting as: Aurora

Confirmed team: 00-feasible-6796 — 2/5 spots
★ Aurora | ✓ Priya | ○ +3 open

- 00-feasible-6796 — 2/5 spots
- 00-feasible-cdio34 — 4/5 spots
- 00-open-baton-2745 — 2/5 spots
- 00-relay-crew-545933 — 2/5 spots

Activity Summary | Engineering Proof

Preview only - not joined yet
Plan preview: aurora, kai, mateo (2/2 tasks)

Confirmed by server
Team 00-feasible-6796: 2/5 spots (leader-aurora, priya-wan-5247zw)

Zero-displacement repair adds Mateo on database to clear the parallel bottleneck without replacing committed teammates.

TASK CLARITY & STRESS-RELIEF GUIDE (COGA) · Weight-Off Solver: instant timezone math, 0 commitm

3. Unverified skill: when backup covers it vs. quick check -> Almost ready: confirm 1 unverified skill

Step 2 of 4: Check if hours and skills fit

Test if your team has the right skills and waking hours to finish every task on time.

Try Kai (UTC-6) | Next: Step 3 Claim Team Spot → | Minimize Step Guide

Acting as: `leader-aurora` | Active team: `00-feasible-6796` (2/5 spots) | Schedule status: **2/2 tasks ready**

Local preview only: testing schedules here never locks spots on the server.

Global Time-Zone Handoff Map (UTC-12 to UTC+14)

Traces clean handoffs from Shift 1 (0..240m) to Shift 2 (240..480m, e.g. Priya in Bengaluru UTC+5:30).

In team plan | Handoff match | Calm at Rest (850ms Handoff)



STEP 2 · SCHEDULE, TIME ZONES & SKILL FIT

Plan the work

List the tasks, check everyone's available hours across time zones, and see who completes the schedule without replacing current teammates.

Preview / Print Plan | Text / JSON | Check plan & suggestions

EXAMPLE 1
1. Different time zones, clean handoff
Hot Springs (UTC-6) + Bengaluru (UTC+5:30) - 0m overlap, finishes early

EXAMPLE 2
2. One person double-booked on two tasks
Both skills exist on paper, yet two simultaneous 2-hour tasks overload one person

EXAMPLE 3 Active
3. Unverified skill: when backup covers it vs. quick check
Asks zero questions when a backup covers the task, or prompts one quick check

EXAMPLE 4
4. Unblock early setup without replacing teammates
Unlock a blocked 3-person team by adding early setup support

3. Unverified skill: when backup covers it vs. quick check: Compare two cases: when Devon has an unverified frontend skill, the planner suggests one quick 5-minute check. When Kai already covers frontend with verified work, the planner asks zero unnecessary questions.

Case 3A: No backup for frontend (prompts 1 quick check) | Case 3B: Kai covers frontend with verified work (asks 0 questions)

Team Plan & Schedule

Deliver authenticated API and accessible React interface with provisional secondary skill wildcards

Almost ready: confirm 1 unverified skill
Confirm devon's accessible-ui skill to lock the schedule.

aurora UTC-6 × | devon UTC-5 × | + Try Kai (UTC-6)

Time-Zone Handoff Map — In plan | Available match



core-api (backend) +60m
✓ aurora (0..90m)

accessible-ui (frontend) +60m
? Unverified: devon (90..180m)

Try Kai in plan | Preview / Print PDF

Server online · Mateo ready · 0 saved | Sync

Team Spots & Server Result

Active team: `00-feasible-6796` · Acting as: **Aurora**

Confirmed team: `00-feasible-6796` — 2/5 spots
★ Aurora | ✓ Priya | ○ +3 open

• 00-feasible-6796	2/5 spots
00-feasible-cdio34	4/5 spots
00-open-baton-2745	2/5 spots
00-relay-crew-545933	2/5 spots

Activity Summary | Engineering Proof

Preview only - not joined yet
Plan preview: aurora, devon (2/2 tasks)

Confirmed by server
Team `00-feasible-6796`: 2/5 spots (leader-aurora, priya-wan-5247zw)

Missing portfolios are never scored as zero ability: skills use 4-valued states (supported, refuted, conflicting, unknown).

Post Sheet
Connecting people through purpose

1. Find teammates | 2. Plan the work | 3. Manage your team | 4. Test the last spot

Search / | Shortcuts ? | Acting as: Priya | Blue Shield | Display & A11y: Auto (60%) | Download Plan

TASK CLARITY & STRESS-RELIEF GUIDE (COGA)

1-Click Reversible: equal join & leave symmetry, Wi-Fi safe

Next: Step 4 Run Proof & Audit →

Minimize Step Guide

Step 3 of 4: Claim or share an official spot

Join an open team spot on the server, create a single-use invite, or leave cleanly.

Acting as: priya-wan-5795pa | Active team: 00-relay-crew-5795pa (2/5 spots) | Schedule status: 1/2 tasks ready

Server action with 1-click exit: you can leave a team or switch roles at any time.

STEP 3 - MANAGE YOUR TEAM, INVITES & OFFLINE CONTINUITY

Keep a join request moving when your connection drops.

Save the request on your device. A connected teammate can forward it. The server decides whether you join.

Preview / Print Plan | Hide Engineering Proof

OFFLINE JOIN WALKTHROUGH - ZERO DUPLICATE SPOTS

Try saving a join request offline and sending it through a teammate

Saving on your device never claims a spot by itself; only the server confirms membership, and reconnecting safely returns the original result.

Prepare example team

STEP 1 — Connected

1. Save your request while disconnected

Turn off your direct connection and save your join request on this device.

1A. Simulate dropped connection

1B. Join team directly

✓ Request was saved locally before forwarding.

STEP 2 — Teammate Mateo

2. Send through a connected teammate

Mateo has working internet and forwards your signed request without creating a duplicate.

Send through Mateo

Sent through Mateo. Confirmed by server.

Spot confirmed for priya-wan-5795pa on 00-relay-crew-5795pa.

via=relay-mateo · opId=join-d852f3ba-9823-450c-9163-b965c063aed3 · replayed=false

STEP 3 — Safe retry

3. Reconnect and check the original request

When your connection comes back, checking the same request returns the original server result with zero duplicate spots.

Reconnect & check request

SERVER TEAM MEMBERSHIP

SHARED TEAM NOTES (ENCRYPTED)

Reconnected to server.

1/2 tasks

Team Plan & Schedule

1 2 3 4

Deliver authenticated API and accessible React interface with provisional secondary skill wildcards

Plan incomplete: 1 of 2 tasks covered (needs Frontend UI)

Try a teammate who covers Frontend UI in the needed time window.

aurora UTC-6 × | devon UTC-5 × | + Try Kai (UTC-6)

Time-Zone Handoff Map — In plan / Available match



core-api (backend) +60m

✓ aurora (Preview 0..90m)

accessible-ui (frontend) +60m

Uncovered - needs frontend

Try Kai in plan | Preview / Print PDF

Server online · Mateo ready · 1 saved

Sync

Team Spots & Server Result

Active team: 00-relay-crew-5795pa · Acting as: Priya

Confirmed team: 00-relay-crew-5795pa — 2/5 spots

★ Aurora | ✓ Priya | ○ +3 open

Invite accepted by Priya

• 00-relay-crew-5795pa	2/5 spots
00-feasible-6796	2/5 spots
00-feasible-cdio34	4/5 spots
00-open-baton-2745	2/5 spots

Activity Summary | Engineering Proof

Preview only - not joined yet

Plan preview: aurora, devon (1/2 tasks)

Confirmed by server

Team 00-relay-crew-5795pa: 2/5 spots (aurora-lead-5795pa, priya-wan-5795pa)

Saved on this device

Waiting to send join request for priya-wan-5795pa -> 00-relay-crew-5795pa.

Sent through Mateo

Confirmed by server for priya-wan-5795pa on 00-relay-crew-5795pa.

Sent through Mateo · priya-wan-5795pa -> 00-relay-crew-5795pa

Confirmed by server · priya-wan-5795pa -> 00-relay-crew-5795pa

Confirmed by server · aurora-lead-5795pa -> 00-relay-crew-5795pa

Confirmed by server · aurora-lead-5795pa -> 00-relay-crew-5795pa

Uplinked teammate Mateo relays the claim to Layer A; direct reconnect replays the original receipt (replayed: true, 0 duplicate spots).

Post Sheet
Connecting people through purpose

1. Find teammates | 2. Plan the work | 3. Manage your team | 4. Test the last spot

Search / | Shortcuts ? | Acting as: Priya | Blue Shield | Display & A11y: Auto (60%) | Download Plan

TASK CLARITY & STRESS-RELIEF GUIDE (COGA)

Isolated Lab Crew: your real team spot stays untouched

Back to Step 1 Directory →

50 requested: 1 joined (claimant-0), 49 turned away at 2/2 (3.5 ms)!

Step 4 of 4: Verify fairness, speed, and clarity

Run the 50-person race test or check the live Cognitive Firewall and Comprehension score.

Acting as: priya-wan-5795pa | Active team: 00-relay-crew-5795pa (2/5 spots) | Schedule status: 1/2 tasks ready

Isolated test sandbox: running a race test uses a temporary test team.

STEP 4 - LIVE CONTENTION TEST & SCALE PROOF

50 people request the last spot. See what happens.

Send 50 simultaneous join requests for 1 open spot on a 2-person team. The server confirms 1 new member and turns away 49 cleanly without overfilling the team.

Check live board speed | Run 50-person last-spot test

LIVE SERVER RUN - REAL-TIME TEST OUTPUT

Live Last-Spot Race Result

0 overfilled teams | Hide Engineering Proof

REQUESTS SENT	CONFIRMED BY SERVER	TURNED AWAY CLEANLY	SERVER TIME
50 requested	1 joined (claimant-0)	49 turned away - team full at 2/2	3.5 ms

SQLite BEGIN IMMEDIATE Invariant Check (POST /api/demo/race-50) — SQLITE_AUTHORITY

winner=claimant-0 (HTTP 200) · rejected=49 x HTTP 409 TEAM_FULL · oversize=0 · orphanLeader=0 · eventMismatch=0

#01 ★ Joined	#02 ✕ Full	#03 ✕ Full	#04 ✕ Full	#05 ✕ Full	#06 ✕ Full
#07 ✕ Full	#08 ✕ Full	#09 ✕ Full	#10 ✕ Full	#11 ✕ Full	#12 ✕ Full
#13 ✕ Full	#14 ✕ Full	#15 ✕ Full	#16 ✕ Full	#17 ✕ Full	#18 ✕ Full
#19 ✕ Full	#20 ✕ Full	#21 ✕ Full	#22 ✕ Full	#23 ✕ Full	#24 ✕ Full
#25 ✕ Full	#26 ✕ Full	#27 ✕ Full	#28 ✕ Full	#29 ✕ Full	#30 ✕ Full
#31 ✕ Full	#32 ✕ Full	#33 ✕ Full	#34 ✕ Full	#35 ✕ Full	#36 ✕ Full
#37 ✕ Full	#38 ✕ Full	#39 ✕ Full	#40 ✕ Full	#41 ✕ Full	#42 ✕ Full

1/2 tasks

Team Plan & Schedule

Deliver authenticated API and accessible React interface with provisional secondary skill wildcards

Plan incomplete: 1 of 2 tasks covered (needs Frontend UI)

Try a teammate who covers Frontend UI in the needed time window.

aurora UTC-6 × | devon UTC-5 × | + Try Kai (UTC-6)

Time-Zone Handoff Map — In plan / Available match



core-api (backend) +60m
✓ aurora (Preview 0..90m)

accessible-ui (frontend) +60m
Uncovered - needs frontend

Try Kai in plan | Preview / Print PDF

Server online · Mateo ready · 1 saved — Sync

Team Spots & Server Result

Active team: 00-relay-crew-5795pa · Acting as: Priya

Confirmed team: 00-relay-crew-5795pa — 2/5 spots
★ Aurora | ✓ Priya | ○ +3 open
Invite accepted by Priya

• 00-relay-crew-5795pa	2/5 spots
00-feasible-6796	2/5 spots
00-feasible-cdio34	4/5 spots
00-open-baton-2745	2/5 spots

Activity Summary | Engineering Proof

Preview only - not joined yet
Plan preview: aurora, devon (1/2 tasks)

Confirmed by server
Team 00-relay-crew-5795pa: 2/5 spots (aurora-lead-5795pa, priya-wan-5795pa)

Saved on this device
Waiting to send join request for priya-wan-5795pa -> 00-relay-crew-5795pa.

Sent through Mateo
Confirmed by server for priya-wan-5795pa on 00-relay-crew-5795pa.

Last-spot test complete
50 requested · 1 joined (claimant-0) · 49 turned away (3.5 ms).

Sent through Mateo · priya-wan-5795pa -> 00-relay-crew-5795pa
Confirmed by server · priya-wan-5795pa -> 00-relay-crew-5795pa
Confirmed by server · aurora-lead-5795pa -> 00-relay-crew-5795pa
Confirmed by server · aurora-lead-5795pa -> 00-relay-crew-5795pa

Verified by 183 automated checks: 124 Node suite subtests across 11 files + 59 Kernel Gates including a 12-query Python SQLite oracle.

LIVE SERVER RUN - REAL-TIME TEST OUTPUT

Live Last-Spot Race Result

Engineering Proof

Click **"Run 50-person last-spot test"** above to create a live 2-spot team on the server (with 1 lead already seated) and send 50 valid single-use requests at the same time.

#01 O Ready	#02 O Ready	#03 O Ready	#04 O Ready	#05 O Ready	#06 O Ready
#07 O Ready	#08 O Ready	#09 O Ready	#10 O Ready	#11 O Ready	#12 O Ready
#13 O Ready	#14 O Ready	#15 O Ready	#16 O Ready	#17 O Ready	#18 O Ready
#19 O Ready	#20 O Ready	#21 O Ready	#22 O Ready	#23 O Ready	#24 O Ready
#25 O Ready	#26 O Ready	#27 O Ready	#28 O Ready	#29 O Ready	#30 O Ready
#31 O Ready	#32 O Ready	#33 O Ready	#34 O Ready	#35 O Ready	#36 O Ready
#37 O Ready	#38 O Ready	#39 O Ready	#40 O Ready	#41 O Ready	#42 O Ready
#43 O Ready	#44 O Ready	#45 O Ready	#46 O Ready	#47 O Ready	#48 O Ready
#49 O Ready	#50 O Ready				

RECORDED BENCHMARK & SECURITY REFERENCE (STATIC VERIFIED LOGS)

Scale Telemetry, Security Boundary & 5-Minute Guide

Recorded 10k-Person Benchmark | Server vs. Peer Relay Boundary | 5-Minute Walkthrough | Live Firewall, CGI & Comprehension Audit

100-CLIENT P95 READ SPEED

36.68 ms

5.4x faster than the 200 ms target across 16,983 reads in 5.0s (p50 = 28.29 ms, 0 errors).

SUSTAINED 10S THROUGHPUT

35,034 reqs

100 concurrent connections reading 100 teams per page: p50 = 27 ms, 0 failed responses.

SEEDED DATASET

10,000 / 2,000

10,000 people across 2,000 teams seeded in 13.4s with zero overfilled teams or missing leads.

AUTOMATED CHECKS

183 / 183 PASS

124 Node suite tests across 11 files (baseline, race, SSE, crypto, R5/R6/R15 solver & matcher labs, cognitive firewall, security) + 59 bash & SQLite oracle gate

core-api (backend) +60m
✓ aurora (0..90m)

accessible-ui (frontend) +60m
✓ kai (90..180m)

Create team & invite | Preview / Print PDF

Activity Summary | Engineering Proof

Preview only - not joined yet
Plan preview: aurora, kai (2/2 tasks)

Confirmed by server
Team 00-feasible-6796: 2/5 spots (leader-aurora, priya-wan-5247zw)

10 / 10 | 10K SCALE (36.68 MS P95), TRADE-OFFS & ONE MORE WEEK

https://postsheet-h4h-ps1-production.up.railway.app

10,000 users / 2,000 teams seeded in 13.4s; 100-client /board p95 = 36.68 ms (5.4x under 200 ms SLA). Single-writer WAL prevents split-brain.

LIVE SERVER RUN · REAL-TIME TEST OUTPUT

Live Last-Spot Race Result

Engineering Proof

Click **"Run 50-person last-spot test"** above to create a live 2-spot team on the server (with 1 lead already seated) and send 50 valid single-use requests at the same time.

#01 ○ Ready	#02 ○ Ready	#03 ○ Ready	#04 ○ Ready	#05 ○ Ready	#06 ○ Ready
#07 ○ Ready	#08 ○ Ready	#09 ○ Ready	#10 ○ Ready	#11 ○ Ready	#12 ○ Ready
#13 ○ Ready	#14 ○ Ready	#15 ○ Ready	#16 ○ Ready	#17 ○ Ready	#18 ○ Ready
#19 ○ Ready	#20 ○ Ready	#21 ○ Ready	#22 ○ Ready	#23 ○ Ready	#24 ○ Ready
#25 ○ Ready	#26 ○ Ready	#27 ○ Ready	#28 ○ Ready	#29 ○ Ready	#30 ○ Ready
#31 ○ Ready	#32 ○ Ready	#33 ○ Ready	#34 ○ Ready	#35 ○ Ready	#36 ○ Ready
#37 ○ Ready	#38 ○ Ready	#39 ○ Ready	#40 ○ Ready	#41 ○ Ready	#42 ○ Ready
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#49 ○ Ready	#50 ○ Ready				

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SYNCHRONICITY COGNITIVE FIREWALL + CINEMA STAGECRAFT + W3C COGA

Live DOM, 3-Point CGI & Task Comprehension Verdict: ALL INVARIANTS PASS (10/10)

Re-Run Live Audit

Verifies WCAG 2.2 AA/AAA, W3C COGA Working-Memory & Readability bounds, Demand-Driven WebGL2 3-Point Cinema optics (webGL2-`Affordalume-3Point`, `0` FPS idle rest, Key:Fill `1.58:1`, Soft-Fascination Weber `0.31` < 0.50 startle ceiling, clamp <= `0.92`, shade `emerald`), FTC ROSCA Clear-and-Conspicuous comprehension, EU Digital Fairness Act (Nov 2026) 1-click off-switch & choice symmetry, and DOJ ADA Title II (Apr 2027) compliance.

Status	Invariant Check	Live Measured Telemetry
✓ PASS	Zero manipulative scripts or accessibility overlay shims	`0 third-party overlay scripts; native semantic DOM`
✓ PASS	Zero aria-hidden focus black holes or roleless div-soup controls	`hiddenTraps=0, rolelessDivTab=0`

core-api (backend) +60m
✓ aurora (0..90m)

accessible-ui (frontend) +60m
✓ kai (90..180m)

Create team & invite | Preview / Print PDF

Activity Summary | Engineering Proof

Preview only - not joined yet
Plan preview: aurora, kai (2/2 tasks)

Confirmed by server
Team `00-feasible-6796`: 2/5 spots (leader-aurora, priya-wan-5247zw)

10 / 10 | 10K SCALE (36.68 MS P95), TRADE-OFFS & ONE MORE WEEK

https://postsheet-h4h-ps1-production.up.railway.app

With 1 more week: per-event Durable Object / SQLite sharding, Litestream S3 WAL streaming + hash-chained audits, and WebAuthn relay warrants.