HACKATHON 01

Clinical Trial Patient Matching

Rules

This hackathon tests your **AI Nativeness.**

Rule	What It Means
No Manual Coding	Use AI coding agents (Claude, Cursor, Copilot, etc.) for ALL code generation. We're evaluating how you direct AI, not your typing speed.
Show Your Process	Keep your AI chat history accessible. We'll check in with you periodically throughout the hackathon to see how you're thinking, what you're building, and how you're using AI tools.
Think Critically	Don't blindly accept AI output. Review it. Test it. Understand it. If you can't explain your own code, that's a problem.
Ask Questions	The spec below is intentionally vague. Clarifying questions = good signal. Assumptions without asking = risk.

The Problem

Clinical trials are essential for developing new treatments. But there's a massive matching problem:

For Patients

- Patients with serious conditions often don't know clinical trials exist for their condition
- Even when they do, eligibility criteria are complex and hard to parse
- By the time they find a relevant trial, enrollment may be closed or they may not qualify

For Trials

- 80% of clinical trials fail to meet enrollment timelines
- Patient recruitment is the #1 bottleneck in drug development
- Finding eligible patients is expensive, slow, and inefficient

People are dying because they didn't know a trial existed. Treatments are delayed because trials can't find participants.

Your Task

Build an AI-powered solution that addresses some part of the clinical trial patient matching problem.

You decide:

– Who is your primary user?
– What specific problem are you solving for them?
– What does success look like?

Constraints

- **Time:** 24 hours
- **Output:** Working prototype (web or mobile app)
- **AI/ML Required:** Your solution must meaningfully use AI/ML (not just a static form)

Data Sources (Optional Starting Points)

You are free to use any data sources. Here are some public ones:

- **ClinicalTrials.gov** – Registry of clinical trials (API available)
- **PubMed** – Medical literature
- **UMLS / SNOMED** – Medical terminology standards
- **Synthetic patient data** – You can generate or mock patient data

You do NOT need real patient data. Mock data, synthetic data, or user input is fine.

What We're NOT Specifying (Intentionally)

We're leaving these open for you to decide:

- Whether you're building for patients, doctors, trial coordinators, or someone else
- Whether matching happens via patient input, medical records, or something else
- Whether this is a search tool, recommendation engine, matching platform, or something entirely different
- Geographic scope (global, US-only, specific regions)
- Condition focus (all conditions, oncology-specific, rare diseases, etc.)

Make decisions. Justify them. Narrow your scope.

Evaluation Criteria

Criteria	Weight	What We're Looking For
Novelty	**25%**	Is your approach interesting and differentiated?
Problem Research	**25%**	Did you dig into the problem? Understand existing solutions?
UX & Empathy	**20%**	Does the interface show you understand your user?
Technical Execution	**15%**	Does it work? Is AI used meaningfully?
Communication	**15%**	Can you articulate what you built and why?

We are NOT evaluating:

- Production-readiness
- Number of features
- Code cleanliness (though it helps)
- Specific tech stack choices

Recommended Tech Stack (Optional)

Use whatever you want. If you want to move fast:

- **Framework:** BetterTStack – better-t-stack.dev
- **AI Integration:** Vercel AI SDK – ai-sdk.dev
- **UI/UX Resources:** design.naironai.com

Questions?

Ask us. Seriously.

If you're unclear about scope, constraints, or what we're looking for – ask in Slack or grab us in KumoSpace.

Asking clarifying questions is a GOOD thing. It shows you're thinking about the problem before jumping into code.

Submission

Details will be shared 2 hours before the deadline.

Deadline: 1:00 PM Dubai Time (Sunday)

Good luck. Build something great.