SNUC HACKS '26

Problem Statements

SHIV NADAR UNIVERSITY CHENNAI

Track 1: Social Tech

Context:

Most habit tracking tools today are private, manual and easy to ignore. Users log progress individually, receive little external accountability and face no real consequence when they drift away.

There have been a lot of apps that aimed to solve this problem, but none have been successful. Potential areas of failure are with ease of use and engaging feedback systems.

Challenge:

Design and build a group first socially aware habit system that transforms habits from private tasks into a shared, social experience. The system should make habit tracking easy by methods such as automatic tracking, introducing gamification elements and provide nudges to keep users consistent while dealing with failure conditions such as authenticity.

What a “habit” is, and what the feedback systems associated with this habit are, are up to the team’s interpretation. Narrow down the problem slightly for more direction. A habit could be something as simple as having to solve a leetcode problem today.

What you need to do:

- Take a deep dive into the psychology of humans in relation to their habits and how it affects the solution they build.
- Analyze existing solutions, and pinpoint reasons as to why none of them have become mainstream; Attempt to solve those problems in a socially aware manner.

Feature Ideas:

These ideas have not been elaborated upon, because we suggest that teams form their own interpretations. These are meant to only guide your thinking.

- Habit Tracking
- Social Experiences
- Gamified Rewards
- Failure Analysis

Evaluation Criteria:

Criterion	What We Look For
Behavioral Grounding	Does the solution apply psychological principles based upon real world scenarios?
Problem Analysis and Differentiation	Does the solution address those with concrete design choices rather than vague improvements?
Social System Design	Are group mechanics creating genuine shared stakes with thoughtful failure recovery?
Technical Execution	Is the system functional and demonstrable? Is tracking low-friction or automatic in a meaningful way?
User Experience	Is the UI/UX appropriate for the target demographic? Would someone your age use this without hesitation?

Push beyond the ideas above. These are meant to be starting points for a system that redefines how habits are formed, sustained and experienced.

Track 2: Market Intelligence

Context:

Companies across industries constantly ask:

- What are competitors launching?
- Which messaging angles are they testing?
- How are they positioning themselves for different customer segments?
- Which offers, product claims, landing page formats, and calls to action are becoming common?
- What objections are customers repeatedly raising in reviews, comments, forums, or sales conversations?

Today, this intelligence is scattered across websites, landing pages, ad libraries, review platforms, social media, product listings, and internal notes. This makes market understanding slow, manual, and highly dependent on individual effort.

Challenge:

Build an intelligence engine that continuously tracks competitor websites, such as landing pages, product or service pages, etc. for pricing changes, ads, reviews, influencer or community mentions and category trends, to infer actionable strategic insights.
The system should help teams answer practical questions such as:

- What are the emerging trends?
- How are competitors tailoring messaging?
- Which positioning angles are overused?
- Where do whitespaces exist in the market?
- What content, offers, or campaigns should a company test next?

Teams are expected to propose how data is collected, normalized, compared over time, scored for relevance and transformed into decision-ready insights.

What you need to build:

- **Data Collection Pipeline**

  Identify and crawl multiple competitor data source (landing pages, product pages or review platform like G2, Trustpilot or Gartner)
- **Time-Series Tracking & Change Detection**

  Detect and surface changes between changes of competitor content such as new pricing tiers, revised messaging, new product claims, etc.

- **Competitive Comparison & Scoring**
  Compare competitors across multiple dimensions (e.g. cost leadership vs premium, feature-driven vs outcome-driven, etc.). Score insights for novelty, frequency, and relevance to help teams prioritize what matters.
- **User-Facing Insight Dashboard**
  Provide a UI for teams to explore emerging claims by each company.

Evaluation Criteria:

Criterion	**What We Look For**
Data Completeness	Can you reliably collect and normalize competitor signals across multiple sources?
Change Data Quality	Are diffs between snapshots meaningfully captured?
Insight Accuracy	Are extracted claims, positioning angles and segments validated against source data?
Actionability	Do insights lead to clear decisions (e.g., "test this messaging angle" or "competitor gap exists here")?
Usability	Can a non-technical team member explore insights and find answers to strategic questions?

Constraints and Expectations:

- Insights surfaced must be traceable back to a source with reasoning provided for each insight.
- Teams are encouraged to push beyond requirements and try to come up with a product which will genuinely help professionals derive insights on competitors.

Innovate beyond these boundaries to build a system that transforms scattered competitor signals into your team's strategic advantage.

Track 3: Fintech

Context:

Small businesses often make financial decisions based only on their current bank balance, without a clear view of upcoming obligations, payment timelines, and trade-offs. As a result, they face avoidable cash shortfalls, delayed payments, and reactive decision-making. Most existing tools focus on recording and reporting financial data. They do not assist users in determining what action to take when available cash is insufficient to meet all upcoming commitments.

Challenge:

Build an semi-autonomous system that models a user's short-term financial state, identifies situations where obligations exceed available liquidity, and determines the most appropriate next action with clear and actionable reasoning.

Scope:

Participants are expected to design and implement a system with the following capabilities:

- Multi-Source Financial State Modeling: Ingest fragmented financial inputs such as bank statements , digital invoices, expenses and images(physical/handwritten) receipts into a normalized structure that includes cash balance, payables, and receivables.
- Constraint & Runway Detection: Quantify systemic risk identifying scenarios where upcoming obligations cannot be fully satisfied with available cash. Compute a time-based liquidity indicator such as days to zero, to provide a real-time solvency countdown.
- Predictive Decision Engine: Model each obligation using attributes such as urgency, risk/penalty, and flexibility. When conflicts arise, the engine must perform deterministic scenario projections to prioritize obligations and justify the chosen trade-offs.
- Context-Aware Action Preparation: Translate decisions into ready-to-use outputs such as payment rescheduling plans or drafted negotiation emails. The strategic approach and linguistic tone of these drafts must dynamically adapt based on the specific counterparty relationship profile.
- Explainability & Chain-of-Thought: Provide clear, human-readable COT reasoning at the decision level. Explanations should justify prioritization and trade-offs without exposing unnecessary internal complexity.

Evaluation Criteria:

Criteria	**What we look for**
Decision Integrity	logical prioritization of obligations.
Strategic Reasoning	Clarity of justifications for chosen trade-offs and paths.
Data Robustness	Extracting handwritten inputs, correlating various data-sources, identifying duplicates, etc. sky is your limit.
System Architecture	Soundness of system design and separation between decision logic and AI-assisted output generation
Actionable Usability	Ease of reviewing and triggering suggested actions for non-technical users.
Reliability of techniques used	Proven techniques, verifiable outputs, etc.

Constraints and Expectations:

- Participants are encouraged to use more deterministic systems for projections and calculations, rather than relying solely on LLM-based reasoning.
- Enabling correct and actionable decisions is also appreciated, on top of providing data visualizations and projections.
- The engine must ideally demonstrate high-fidelity processing of diverse data formats, including digital transaction records and physical document images.

Innovate beyond these constraints to build a system that transforms financial anxiety into clarity, turning fragmented obligations into decisive, confident action.