

Udbhav 2025 Inter IIT Hackathon

Problem Statements for Round-2 (AI/ML, Blockchain & Cybersecurity)

Problem Statement-1:

GenAI-Powered Clinical Note Summarization and Hypothesis Generation

Description: Develop a Generative AI system that processes large, unstructured clinical notes and generates two key outputs: a concise, factual summary of the patient's condition and a prioritized list of potential differential diagnoses. The model should use LLMs fine-tuned or augmented via Retrieval-Augmented Generation (RAG) to ensure accuracy and traceability, referencing specific parts of the input text to justify each diagnosis. This solution aims to reduce clinician workload, minimize diagnostic errors, and enhance decision-making in healthcare.

Problem Statement-2:

Blockchain-Based Land and Property Record Management System

Description: Build a blockchain-driven property registration system to digitize land records. Ensure tamper-proof ownership history, transparent property transfer, and public access to verified documents. This solution aims to reduce corruption and disputes in land management.

Problem Statement-3:

IoT Network Security and Anomaly Detection System

Description: Design a lightweight anomaly detection solution to protect IoT devices from unauthorized access and cyberattacks. Use ML-based behavior analysis to detect unusual traffic patterns in smart home or industrial networks.