24 Hour AI Hackathon PS

Instructions:

- The document contains four problem statements. Participants may choose any one of these to work on.
- All participants who qualify for the next round are required to maintain a public GitHub repository containing their working model. The repository link must be submitted as part of their next-round.

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Problem Statements- Shaastra 2026

Please note: If you come up with a groundbreaking idea that uses Generative AI or Agentic flow and could revolutionize payments through collaboration with Visa, you're encouraged to pursue and implement it.

Problem Statement 1: AI-Powered Modernization of Payment Reporting Systems

Objective:
Create an AI-powered reporting platform that transforms traditional payment reports into intelligent, interactive, and insight-driven systems for financial institutions.

Description:
Card schemes such as Visa and Mastercard generate a wide range of standardized reports for banks and financial institutions across services like authorization, clearing, and settlement. While many of these reports are publicly available, they are often static, complex, and difficult to analyze at scale. This challenge invites participants to use **Generative AI** to modernize payment reporting by:

1. Extracting intelligence and insights from standardized payment reports.
2. Enabling natural language interaction with reports through AI-driven assistants.
3. Transforming static reports into dynamic, visual, and insight-rich dashboards.

Tasks:

1. **Report Discovery and Understanding:**
   ○ Discover publicly available payment and settlement report examples online.
   ○ Analyze report structures, formats, and key metrics.
2. **AI-Driven Analysis Strategy:**
   ○ Design an approach using RAG, AI agents, MCP servers, and large language models to process and understand reports.
   ○ Support analysis across multiple report types and formats.
3. **Insights, Forecasting, and Intelligence:**
   ○ Use AI to generate insights, trends, and forecasts based on report content.
   ○ Enable cross-analysis across different reports (e.g., authorization vs settlement).
4. **Interactive Reporting Platform:**
   ○ Build an intelligent chatbot that allows users to ask questions about reports in natural language.
   ○ Develop AI-generated dashboards and visualizations that are scalable and customizable across different clients and report types.

Problem Statement 2: AI Agent That Proactively Surfaces Your Visa Card Benefits in Real Time

Problem Statement

With the explosion and clutter in the cards space, consumers often face confusion regarding the benefits of their credit cards. This lack of clarity prevents them from fully utilizing the card's value beyond its basic functionality of credit and payments.

Objective

Develop an AI-driven agent that actively assists customers by anticipating their needs and delivering benefit insights at the right moment. The agent should provide users with a clear, comprehensive view of all benefits linked to their Visa credit card by simply entering the card number.

Description

Participants will design an agent that:

- Accepts a masked/test Visa card number.
- Retrieves and displays all associated benefits in an organized, user-friendly manner.
- Uses GenAI to:
    - Summarize complex terms and conditions into plain language.
    - Generate personalized benefit recommendations based on user context (e.g., student lifestyle, location near IIT Chennai).
    - Provide multi-language support (English/Tamil) for accessibility.

Privacy and security are critical: no real card data should be stored, and the scope remains awareness-only. Refer- https://developer.visa.com

Tasks

- **Input Handling** – Accept Visa card number securely.
- **Benefits Retrieval** – Aggregate and display all benefits linked to the card number.
- **Recommendation Logic** – Implement a mechanism to identify and highlight the best benefit.
- **User Interface** – Design a simple, intuitive interface for benefits and recommendations.
- **Compliance** – Ensure privacy compliance and add disclaimers.

Problem Statement 3: GenAI Agent for Universal, Dimension Based Data Quality Scoring in Payments domain

Problem Statement

Payment organizations process massive amounts of transaction data across payment systems. Today, there is no universal or objective way to evaluate this data across standard **data quality dimensions** such as accuracy, completeness, consistency, timeliness, uniqueness, validity, and integrity.
Without a standardized data quality score for a data source, teams struggle with unreliable analytics, increased regulatory risk, and costly manual investigations into data issues.

Objective

Develop a GenAI driven agent that automatically analyzes any dataset and produces a clear, explainable **Data Quality Score (DQS)** including individual dimension level scores and a composite overall score.
The agent should make data quality transparent, actionable, and easily understandable to both technical and non-technical users.

Description

Participants will design an agent that:

- Accepts a dataset (file, table, or API source) in a secure, governed manner.
- Automatically identify the relevant **data quality dimensions** to evaluate (e.g., completeness, accuracy, consistency).
- Runs the appropriate checks and generates:
    - Dimension level scores,
    - A unified composite DQS, and
    - Clear explanations of how each score was calculated.
- Uses GenAI to:
    - Summarize complex metadata or quality issues into plain language,
    - Provide actionable recommendations to improve each dimension,
    - Offer contextual insights (e.g., “completeness is low for KYC address fields affecting regulatory readiness”),
- Ensures privacy, governance, and compliance throughout the data evaluation process. No transaction data should be stored, only metadata and scoring outputs.

Tasks

- **Input Handling** – Accept datasets securely with strict governance controls.
- **Dimension Identification** – Automatically determine which data quality dimensions to score against.
- **Scoring Engine** – Assess each DQ dimension, compute per dimension scores, and produce a composite DQS.
- **Recommendations Logic** – Generate prioritized, actionable fixes for data issues.
- **User Interface** – Design an intuitive interface to view scores, explanations, and improvement pathways.
- **Compliance & Governance** – Enforce data handling policies, privacy safeguards, and auditability.

Problem Statement 4: Agentic AI-Enabled Continuous PCI/PII Compliance for Financial Services Organizations

Track: RegTech, FinTech, Agentic AI, Generative AI, Risk & Compliance Automation

Objective:
Create an **agentic AI-powered compliance platform** built on autonomous, agent-based systems that can make decisions, plan tasks, and operate independently using tools and data, without constant human supervision. The platform should pursue long-term compliance goals, break down complex regulatory objectives into manageable steps, access multiple data sources, and adapt its behavior based on real-time regulatory updates and operational feedback.

Description:
Financial services organizations operate in a dynamic regulatory environment where requirements evolve rapidly across jurisdictions. Traditional compliance programs—largely manual and reactive—struggle to scale with regulatory volume, operational complexity, and the pace of change.
This challenge invites participants to use Agentic AI to transform compliance operations by:

1. Enabling autonomous regulatory (**GDPR, CCPA, LGPD etc)** interpretation, policy mapping, and gap detection.
2. Deploying agent-based systems capable of monitoring large data flows—including transactions, customer communications, and internal documents—in real time.

3. Allowing natural language interaction with regulations, policies, and compliance findings.
4. Generating dynamic risk dashboards, remediation plans, and audit ready evidence packages with minimal human intervention.

Tasks:

1. **Regulatory Discovery and Interpretation:**
   • Identify publicly available regulatory updates, rulebooks, and supervisory guidance across finance, conduct, AML, and data privacy domains.
   • Analyze document structures, obligations, definitions, and required controls.
   • Configure agents capable of autonomously scanning, parsing, and summarizing regulatory changes.
2. **Agentic Compliance Processing Strategy:**
   • Design an approach using autonomous agents, RAG pipelines, AI orchestration layers, and large language models.
   • Equip agents to interpret regulations, map them to internal policies, and identify conflicting or outdated controls.
   • Ensure that agents can independently operate tools (e.g., search APIs, document repositories, workflow systems) to perform multi-step reasoning and planning.
3. **Continuous Monitoring, Insights, and Risk Detection:**
   • Deploy agents to monitor transactional data, marketing content, communications, and operational logs in real time.
   • Generate proactive alerts, anomaly detections, compliance risk heatmaps, and predictive behavioral insights.
   • Enable cross analysis across multiple regulatory domains to identify systemic risks or overlapping obligations.
4. **Interactive, Autonomous Compliance Assurance Platform:**
   • Build an intelligent compliance assistant that allows SMEs, auditors, and regulators to query compliance findings in natural language.
   • Create dynamic, AI-generated dashboards that visualize compliance posture, regulatory mappings, agent-driven tasks, and remediation progress.
   • Ensure agents can autonomously create evidence packages, update control libraries, and recommend corrective actions—adapting behavior based on real-time environmental feedback.