

## AGENTIC AI PORTFOLIO SUMMARY

Applied Decision Automation for SLA & Service Delivery

### PROJECT OVERVIEW

Designed and implemented an agentic AI decision-support system to analyze SLA breach data, identify likely root causes, and safely automate operational insights with built-in human oversight. The system focuses on controlled autonomy, risk awareness, and explainability rather than blind automation.

### PROBLEM STATEMENT

Traditional SLA reporting relies heavily on manual analysis and static dashboards, making it difficult to consistently identify root causes, detect emerging risks, and decide when human intervention is required. High-volume incidents, seasonal spikes, and ambiguous data often lead to delayed or incorrect decisions.

### SOLUTION DESIGN

The solution uses an agentic AI architecture with clear separation of responsibilities:

- Primary Analysis Agent – Identifies top SLA breach patterns and likely root causes
- Critic Agent – Challenges assumptions, detects blind spots, and adjusts confidence
- Risk Engine (Rule-Based) – Independently assesses business risk based on volume, scope, and context
- Human-in-the-Loop Escalation – Ensures high-risk or uncertain cases are reviewed by humans
- Memory Layer – Stores past decisions and guidance as advisory context, not authority

### KEY DESIGN PRINCIPLES

- Confidence  $\neq$  Correctness – The system explicitly separates uncertainty from decision permission
- Risk Overrides Autonomy – High-risk scenarios escalate regardless of confidence
- Memory Is Advisory – Past decisions influence confidence but never dictate outcomes
- Critique Before Control – Blind spots are surfaced before escalation decisions
- Safety by Design – Deterministic control logic governs escalation, not the AI model

### BUSINESS IMPACT

- Faster SLA breach analysis and RCA turnaround
- Reduced manual effort in routine operational reporting
- Improved decision consistency across similar cases
- Safer automation through risk-aware escalation
- Better leadership visibility into uncertainty and risk

## TOOLS & TECHNOLOGIES

- Python
- Large Language Models (LLM-based reasoning)
- Rule-Based Risk & Escalation Logic
- Structured Memory & Monitoring Signals
- Service Delivery & SLA Data (CSV / tabular data)

## WHY THIS MATTERS

This project demonstrates practical, enterprise-ready use of agentic AI in operations, focusing on governance, safety, and decision quality rather than experimentation. It reflects real-world constraints faced by service delivery, PMO, and operations teams.