



# **AI-DRIVEN COLLECTIONS SYSTEM: STRATEGY AND RESPONSIBLE AUTOMATION**



## **HOW THE SYSTEM WORKS – DATA INGESTION**

### **TITLE: CUSTOMER DATA INGESTION**

#### **CONTENT:**

Sources: Real-time & historical customer financial data (credit utilization, payment history, income, demographics)

Data update frequency: Daily/weekly ingestion

Importance: Foundation for risk assessment

Visual suggestion: Flowchart showing multiple data sources funneling into a central data store.

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## **HOW THE SYSTEM WORKS – DECISION LOGIC, ACTIONS, AND LEARNING**

### **TITLE: DECISION LOGIC, ACTIONS & CONTINUOUS LEARNING**

#### **CONTENT:**

Predictive model (Random Forest) scores risk of delinquency

Automated actions: credit limit adjustments, personalized messages

Human-in-the-loop: edge cases flagged for agent review

Feedback loop: model retrains using outcomes & feedback for improvement

Visual suggestion: A four-step circular diagram illustrating: Data → Model → Actions → Feedback Loop

## **ROLE OF AGENTIC AI – BALANCING AUTOMATION AND HUMAN OVERSIGHT**

In the proposed AI-powered collections system, both autonomous decision-making and human oversight play essential roles to ensure efficiency, accuracy, and fairness.

The system operates autonomously in several key areas, such as real-time risk scoring based on customer data, automatically sending credit limit adjustment offers or reminder messages, and triggering collections workflows for high-risk individuals. It also continuously monitors model performance and bias metrics to maintain fairness and compliance.

However, not all decisions should be left entirely to automation. Human agents are involved in reviewing borderline or complex cases where nuance is needed. They handle customer disputes and appeals, approve exceptions to credit policy, and make strategic decisions such as policy updates. This hybrid approach ensures that the system remains accountable, explainable, and aligned with ethical and regulatory standards.



## Responsible AI Guardrails

### **Title: Ensuring Fairness, Transparency & Compliance**

Content:

Fairness Audits: Regular demographic bias detection and correction

Explainability: Clear, simple explanations of AI decisions for agents & customers.

Compliance: Adherence to financial regulations (e.g., GDPR, FCRA)

Human Oversight: Agent involvement in sensitive decisions to avoid errors.

Visual suggestion: Checklist or shield icons representing trust, fairness, and compliance.



## **EXPECTED BUSINESS IMPACT**

### **TITLE: BENEFITS TO GELDUM'S COLLECTIONS STRATEGY**

#### **Content:**

##### **Business KPIs:**

10–15% reduction in delinquency rates

Lower operational costs through automation

Improved risk prediction accuracy

##### **Customer Outcomes:**

Personalized, timely customer support

Increased transparency and trust

Fair and ethical treatment ensured

**Visual suggestion:** Two columns with KPI metrics on one side and customer benefits on the other, using charts or icons.