Business Summary Report: Predictive Insights for Collections Strategy

1. Summary of Predictive Insights

Our predictive analysis identified key drivers of customer delinquency:

- Employment Status is a major risk factor — unemployed customers exhibit significantly higher delinquency rates.

- Credit Card Type influences delinquency — Business and Student cardholders have elevated risk profiles.

- Credit Utilization above 80% strongly correlates with higher delinquency likelihood.

Key Insights Summary Table:

Key Insight	Customer Segment	Influencing Variables	Potential Impact
High credit utilization predicts delinquency	Customers with Credit Utilization > 80%	Credit Utilization, Missed Payments, Loan Balance, Income, Debt-to-Income Ratio	Enable early outreach programs like credit counseling to reduce default rates and protect portfolio health.

2. Recommendation Framework

Restated Insight:
High credit utilization (above 80%) significantly increases delinquency risk.

Proposed Recommendation:

Specific: Actively monitor customers exceeding 80% utilization.

Measurable: Target 10% reduction in delinquency rate within this segment over 12 months.

Actionable: Implement financial coaching, personalized payment plans, and credit monitoring alerts.

Relevant: Directly addresses one of the strongest predictors identified through the model.

Time-bound: Launch pilot intervention program within 3 months.

Justification and Business Rationale:
Proactive intervention for high utilization customers offers the opportunity to reduce future delinquencies, strengthen customer financial stability, and optimize Geldium's collections outcomes.

3. Ethical and Responsible AI Considerations

- Fairness Concern 1: Unemployment status may unfairly impact customers who are temporarily unemployed.
  Mitigation: Incorporate multiple financial stability indicators beyond employment alone.

- Fairness Concern 2: Geographic bias may emerge due to differences across customer locations.
  Mitigation: Conduct location-based fairness analysis and adjust model thresholds as needed.

- Explainability: Model predictions will be communicated in plain language highlighting key contributing factors (e.g., credit utilization, missed payments).

- Responsible AI: This framework ensures transparency, fairness, compliance with financial regulations, and ethical use of customer data.