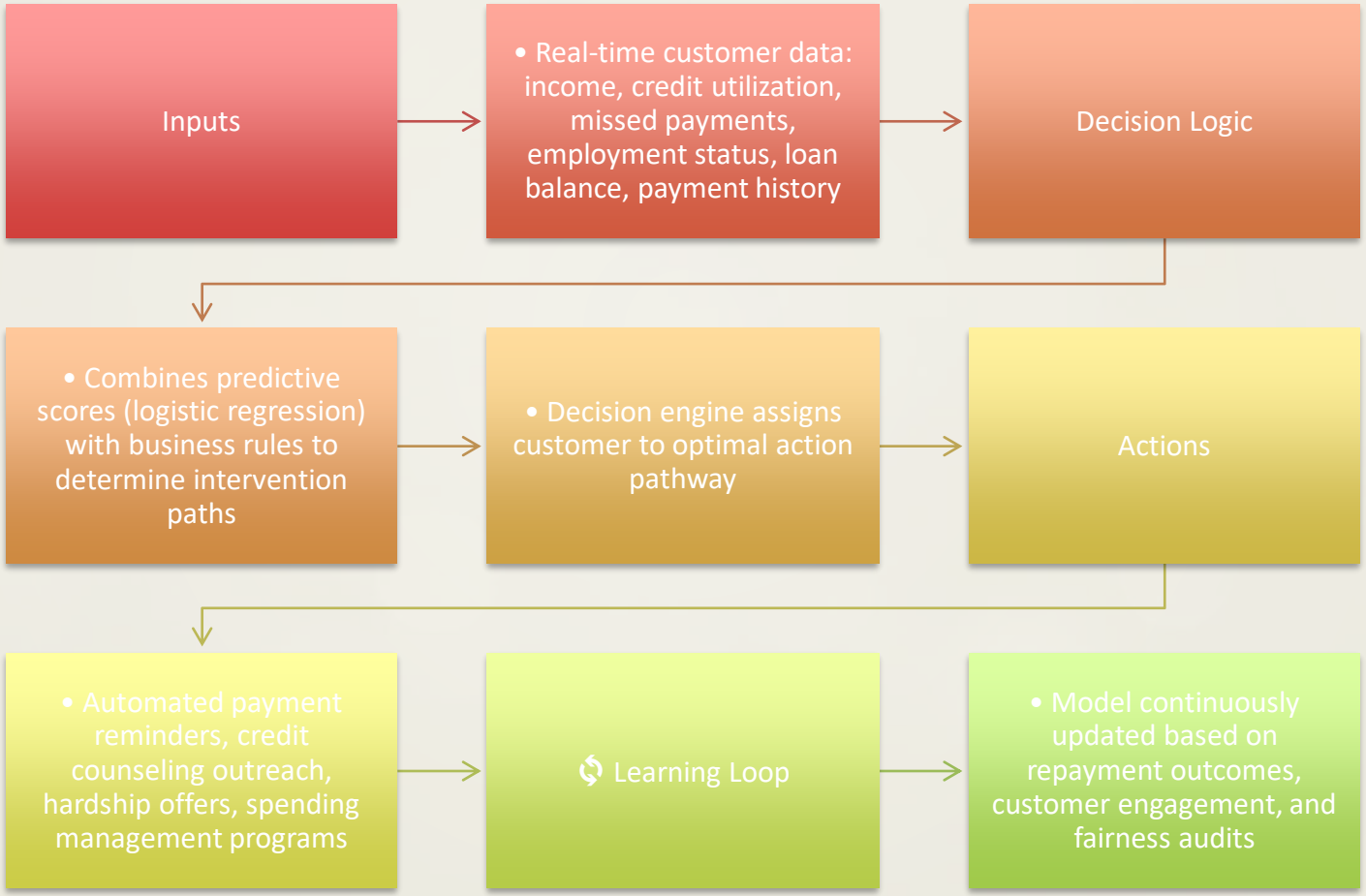
AI-Powered Collections Strategy

Leveraging Agentic AI for Scalable, Fair, and Effective Debt Management at Geldium

How the System Works



System Components and Workflow

- Data Pipeline
- • Ingests financial behavior data (e.g. income, credit utilization, missed payments)

- ⚙ Decision Engine
- • Applies ML risk model + business rules
- • Considers payment history, utilization, employment, loan balance

- Action Layer
- • Automated SMS, email, credit counseling, hardship plan offers

- Learning Loop
- • Model retraining, fairness audits, and periodic human review based on performance outcomes

Role of Agentic AI

- Autonomous:
- • Risk scoring
- • Utilization monitoring
- • Payment reminders
- • Routine outreach

- Human 👥 Oversight:
- • Hardship program approvals
- • Escalation of complex customer cases
- • 📝 Compliance checks
- • ⚖️ Fairness audits

Responsible AI Guardrails

- ⚖️ Fairness
- • Subgroup bias audits by location, employment, and product type

- 🔎 Transparency
- • Explainable outputs with clear drivers behind risk scores

- 📝 Compliance
- • Adherence to GDPR, ECOA, FCRA, and local regulations

- 👥 Oversight
- • Human review for sensitive decisions such as hardship denials or escalations

Expected Business Impact

- 💼 Business Outcomes
- • 10% reduction in delinquency
- • Higher repayment rates
- • Lower collection costs
- • Automate ~60% of outreach

- 🤝 Customer Outcomes
- • Improved customer trust & financial wellness
- • More empathetic outreach
- • Personalized assistance

- 🚀 Operational Efficiency
- • Free up staff for complex cases
- • Scalable automated collections system

Impact on Geldium's Collections Strategy

- 📈 Enhanced Scalability
- • Agentic AI supports broad outreach while personalizing customer experience

- 💰 Cost Efficiency
- • Reduces manual outreach workload, lowering operational costs

- ⍰ Improved Risk Management
- • Targeted interventions for high-risk accounts improve overall collections performance

- ☺ Better Customer Experience
- • Transparent, fair and respectful collections journey boosts customer trust & retention