

Loyalty Genie AI: Reinventing Mall Loyalty Operations

Business Problem



- Manual invoice verification delayed loyalty point crediting, impacting customer satisfaction and increasing support disputes
- Growing invoice volumes and seasonal spikes created operational bottlenecks and scalability challenges
- Fraudulent, duplicate, and near-duplicate submissions increased human review effort and risk of incorrect rewards
- Inconsistent invoice formats (JPG, PNG, PDF) and image quality complicated extraction and validation of critical transaction data
- Limited visibility into processing failures and exceptions constrained operational control and performance monitoring

Solution



- Built an AI-powered invoice processing pipeline for JPWhatsApp-based loyalty submissions across dilw formats
- Combined OCR + LLM reasoning with a confidence layer to auto-approve, flag, or reject invoices based on validation rules
- Added dedupe & fraud checks using deterministic + fuzzy matching to prevent double-crediting
- Integrated automated decisioning with downstream loyalty systems through audit-ready APIs, monitoring, and operational controls

Value Delivered



- ✓ **Speed:** cut time-to-credit from **hours/days** → **minutes**.
- ✓ **Scale:** automated processing for **~13,000 invoices/month** (handles peak-time spikes via scaling).
- ✓ **Accuracy:** targeted **~95%** extraction accuracy with **100%** invoice coverage through automated routing + exceptions.
- ✓ **Cost & effort:** reduced manual verification workload by majority of cases via auto-accept + dedupe.
- ✓ **Control:** Zero duplicate credits in downstream systems through deterministic + fuzzy dedupe.

 **~13,000**

Invoices Processed Per Month with Peak-Time Scalability

 **~95%+**

Extraction Accuracy with 100% Coverage via Routing & Exceptions

 **~75%**

Reduction in Invoice Processing Time from Hours/Days to Minutes