

Invoice & Ticket Reconciliation Agent

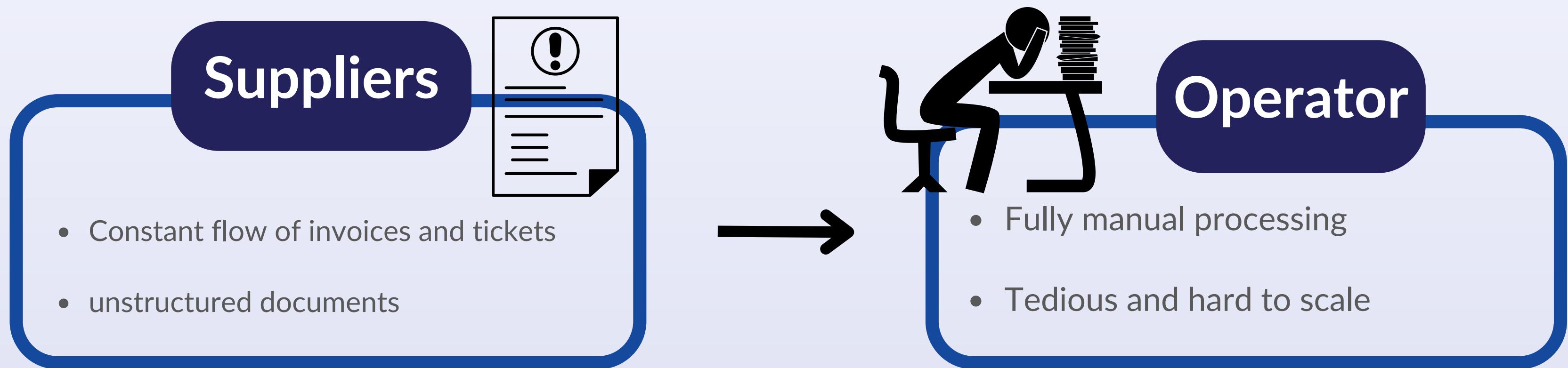
26/11/2025

Table des matières

-
- 03** The Problem
 - 04** Data
 - 05** Agent Solution
 - 06** Workflow
 - 07** Demonstration
 - 08** Value
 - 09** Difficulties / Possible Improvements



Problem



Data

- Invoices, tickets

GOTHAM OFFICE SUPPLIES INC. 350 5th Avenue, Suite 2100 New York, NY 10118 USA EIN: 12-3456789 Email: billing@gotham-office.com	INVOICE Invoice #: INV-2025-003 Invoice Date: January 10, 2025 Due Date: February 04, 2025 Currency: USD																									
Bill To: ACME ANALYTICS LLC 123 Madison Avenue, 9th Floor New York, NY 10010 USA ATTN: Accounts Payable																										
Invoice Discrepancy Ticket																										
<hr/>																										
<table><tr><td>Ticket ID</td><td>TCK-2025-001</td></tr><tr><td>Created Date</td><td>January 20, 2025</td></tr><tr><td>Created By</td><td>JANE SMITH (Accounts Payable Analyst)</td></tr><tr><td>Department</td><td>ACME ANALYTICS LLC – Finance</td></tr><tr><td>Status</td><td>Open</td></tr><tr><td>Priority</td><td>High</td></tr><tr><td>Issue Type</td><td>Amount mismatch</td></tr></table>		Ticket ID	TCK-2025-001	Created Date	January 20, 2025	Created By	JANE SMITH (Accounts Payable Analyst)	Department	ACME ANALYTICS LLC – Finance	Status	Open	Priority	High	Issue Type	Amount mismatch											
Ticket ID	TCK-2025-001																									
Created Date	January 20, 2025																									
Created By	JANE SMITH (Accounts Payable Analyst)																									
Department	ACME ANALYTICS LLC – Finance																									
Status	Open																									
Priority	High																									
Issue Type	Amount mismatch																									
<hr/>																										
<table><thead><tr><th>Item</th><th>Description</th><th>Qty</th><th>Unit Price</th><th>Line Total</th></tr></thead><tbody><tr><td>1</td><td>Premium support (hours)</td><td>1</td><td>100.00</td><td>100.00</td></tr><tr><td></td><td></td><td></td><td>Subtotal</td><td>100.00</td></tr><tr><td></td><td></td><td></td><td>Sales Tax (NYC 8.875%)</td><td>8.875</td></tr><tr><td></td><td></td><td></td><td>Total Amount Due</td><td>108.875</td></tr></tbody></table>		Item	Description	Qty	Unit Price	Line Total	1	Premium support (hours)	1	100.00	100.00				Subtotal	100.00				Sales Tax (NYC 8.875%)	8.875				Total Amount Due	108.875
Item	Description	Qty	Unit Price	Line Total																						
1	Premium support (hours)	1	100.00	100.00																						
			Subtotal	100.00																						
			Sales Tax (NYC 8.875%)	8.875																						
			Total Amount Due	108.875																						
<hr/>																										
<table><tr><td>Payment Information</td></tr><tr><td>Bank: Bank of Metropolis</td></tr><tr><td>Routing Number: 021000021</td></tr><tr><td>Account Number: 987654321</td></tr><tr><td>Payment terms: Net 30 days from invoice date.</td></tr></table>		Payment Information	Bank: Bank of Metropolis	Routing Number: 021000021	Account Number: 987654321	Payment terms: Net 30 days from invoice date.																				
Payment Information																										
Bank: Bank of Metropolis																										
Routing Number: 021000021																										
Account Number: 987654321																										
Payment terms: Net 30 days from invoice date.																										

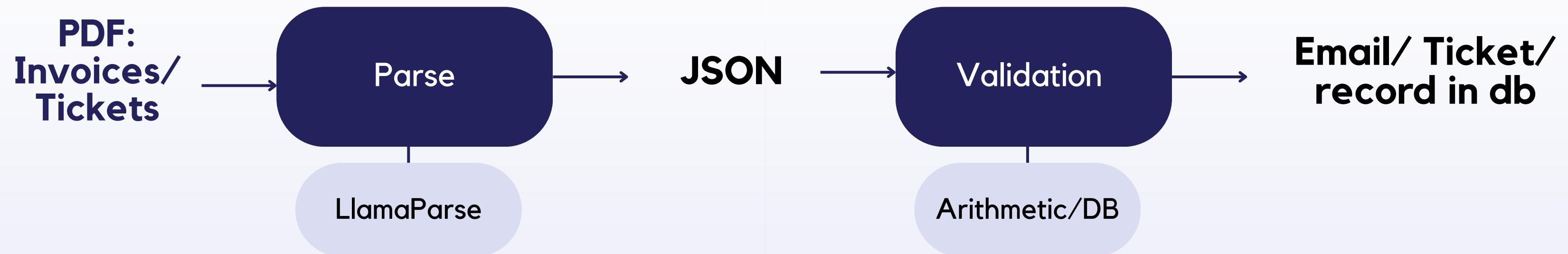
- DB records

data > finance.db						
Rows: 1	Filter 1 rows...					
TABLES		invoic...	supplier_name	customer_name	invoice_d...	due_date
> invoices		INV-2025-000	GOTHAM OFFICE SUPPLIES INC.	ACME ANALYTICS LLC	2025-01-10	2025-02-09
> tickets						
1						
2						



Agent Solution

- An AI agent that reads invoices, reconciles them with your data, and only escalates exceptions to humans if needed.



Workflow Invoice

- Agent reads & parses (Classify document type + Extract structured fields)
- Validation & Reconciliation (Check math + Compare with DB)
 - Math wrong : Draft and send email to supplier
 - math is correct : check for discrepancies against DB
 - if it is a new invoice : add to DB
 - If discrepancies found : create a ticket



Workflow Ticket

- Agent reads & parses (Classify document type + Extract structured fields)
- Create ticket in DB



Démonstration

Value

- 01** Efficiency & cost
- 02** Systematic math checks and DB reconciliation
- 03** Scalability & transparency



Difficulties / Possible Improvements

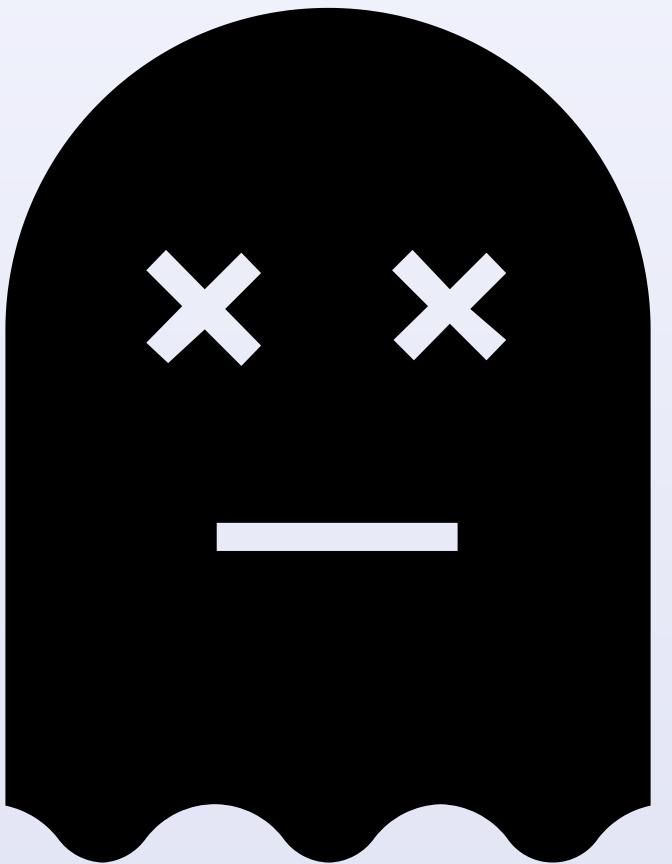
- 01** Dependent on PDF quality & LlamaParse
- 02** Reliable agent behavior
- 03** Limited robustness & monitoring
- 04** Security & access control basic



Difficulties / Possible Improvements

- 01** More document types & flows
- 02** Stronger observability & control (Langfuse)
- 03** Validation
- 04** Data control & Cost (MinerU, full Ollama)
- 05** Human in the loop Control
- 06** cleaning the code





**Thank you for
your attention!**

Questions?

