

Invoice & Ticket Reconciliation Agent

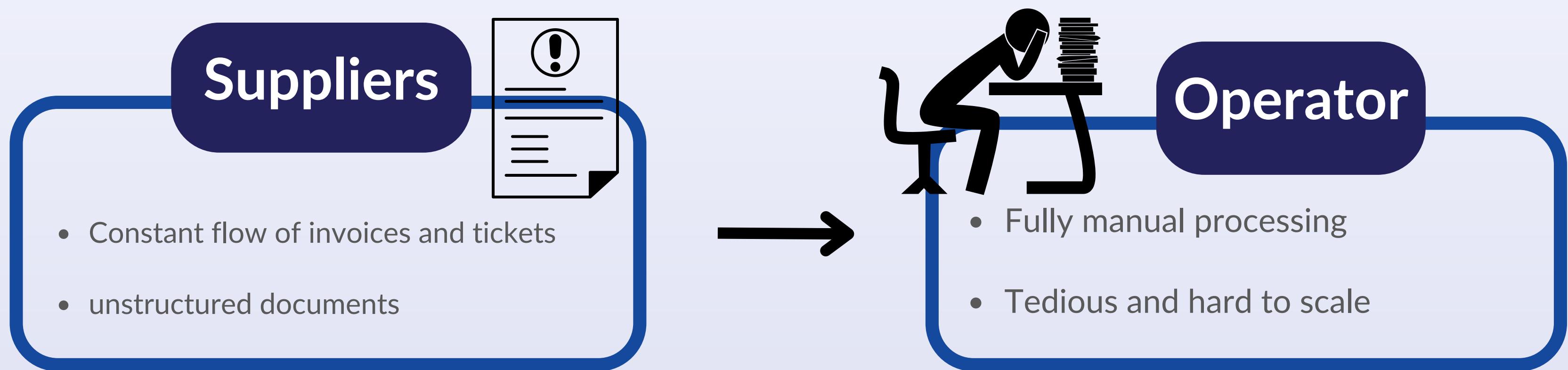
26/11/2025

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Problem



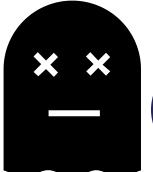
Data

- Invoices, tickets

GOTHAM OFFICE SUPPLIES INC.		INVOICE
350 5th Avenue, Suite 2100 New York, NY 10118 USA		Invoice #: INV-2025-003 Invoice Date: January 10, 2025 Due Date: February 04, 2025 Currency: USD
EIN: 12-3456789 Email: billing@gotham-office.com		
Bill To: ACME ANALYTICS LLC 123 Madison Avenue, 9th Floor New York, NY 10010 USA ATTN: Accounts Payable		
Invoice Discrepancy Ticket		
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	
Payment Information		
Bank: Bank of Metropolis Routing Number: 021000021 Account Number: 987654321 Payment terms: Net 30 days from invoice date.		
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

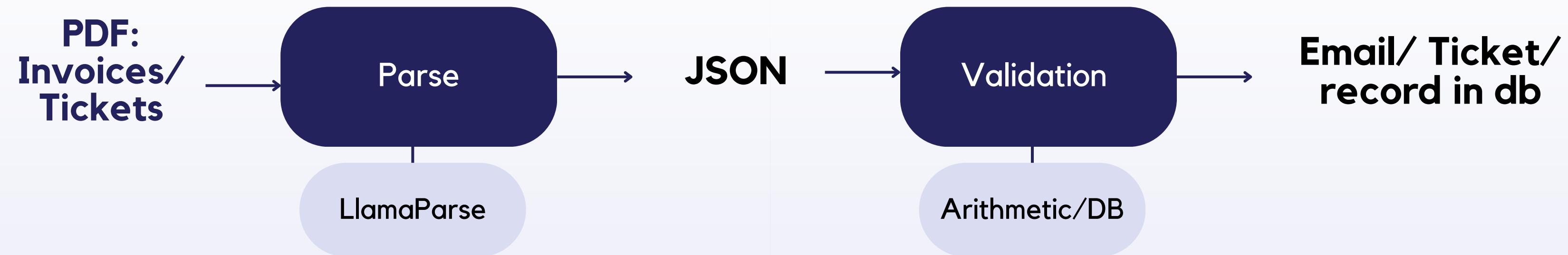
- DB records

data > finance.db						
Rows: 1	Filter 1 rows...					
TABLES	invoic...	supplier_name	customer_name	invoice_d...	due_date	total_am...
> invoices	1 INV-2025-000	GOTHAM OFFICE SUPPLIES INC.	ACME ANALYTICS LLC	2025-01-10	2025-02-09	4376.78
> tickets	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

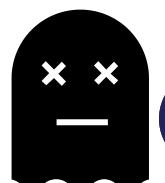
Value

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



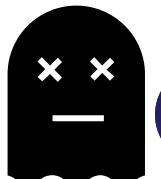
Difficulties / Possible Improvements

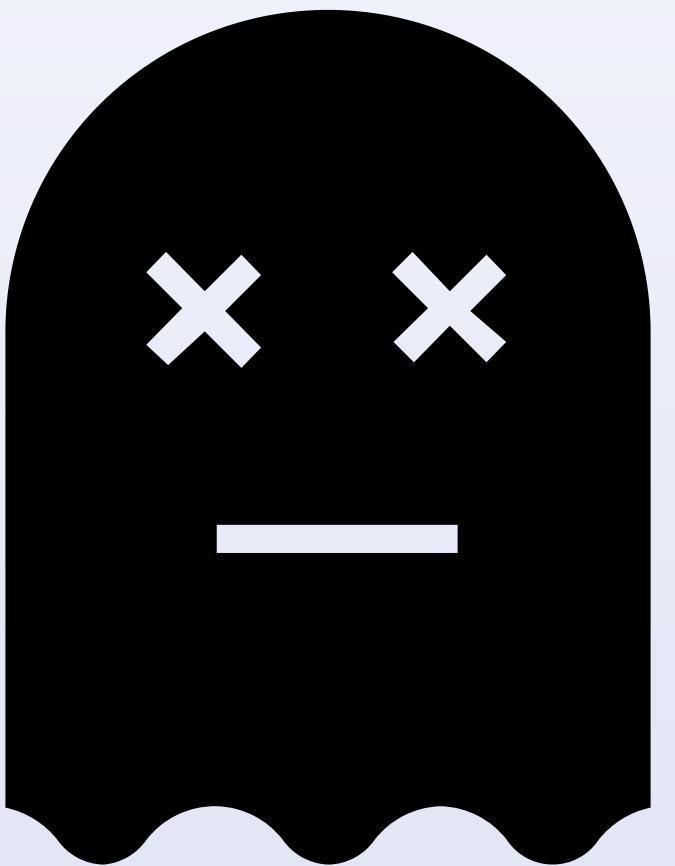
- 01** Dependent on PDF quality & LlamaParse
- 02** Reliable agent behavior
- 03** Limited robustness & monitoring
- 04** Security & access control basic



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?

