

Revolutionizing Commercial Bank Lending with AI-Powered Automation

This presentation explores how Generative AI and OCR can revolutionize commercial bank lending services by automating email processing. We will delve into the challenges of manual triage, the problem statement, and a Gen AI powered solution to improve efficiency and accuracy. Discover how AI-driven automation can minimize manual tasks, enhance operational efficiency, and accelerate service request processing, transforming the lending landscape. We will conclude with key takeaways and potential next steps for implementing such a system.

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The Challenge: Manual Triage of Lending Service Requests

Commercial Bank Lending Service teams face a significant hurdle: a massive influx of servicing requests via email. These emails require manual triage, a time-consuming and error-prone process. A "Gatekeeper" must read and interpret emails and attachments to identify the request type and extract key attributes. This manual process leads to inefficiencies, potential inaccuracies, and delays in service request processing.

Manual Interpretation

Gatekeepers must read and interpret emails and attachments.

Intent Identification

Identify the intent of the email and classify the "Request Type".

Problem Statement: Automating Email Classification and Data Extraction

The core problem is the need for an AI-powered solution to automate email classification and data extraction, enhancing efficiency, accuracy, and turnaround time. The solution needs to categorize emails based on sender intent, extract relevant data, handle multiple requests, prioritize content, and detect duplicates. Let's explore how these specific challenges can be addressed with a cutting-edge AI-driven approach.



Accurate Email Classification

Extract context, interpret it, and categorize emails into predefined request types.



Context-Based Data Extraction

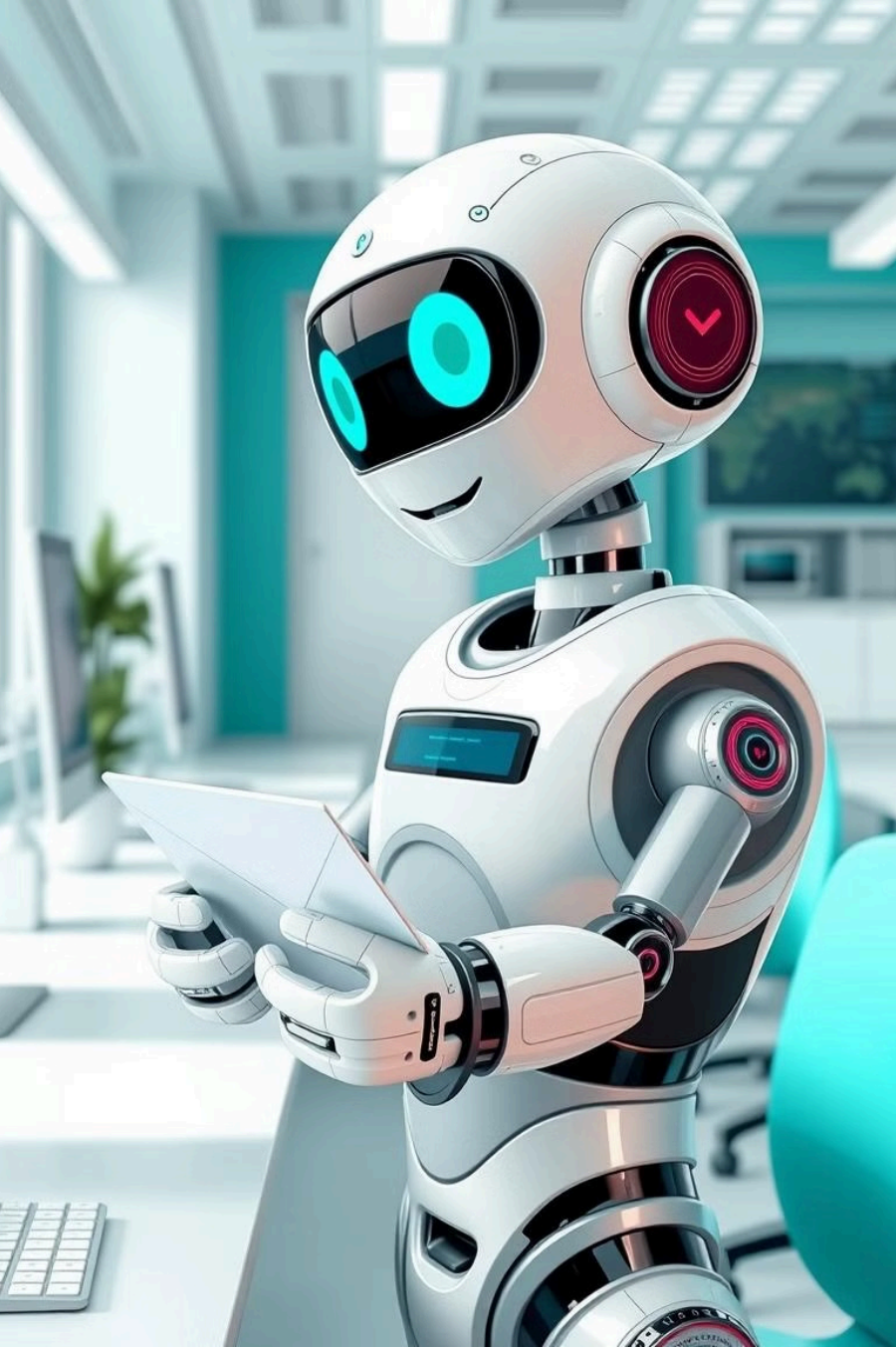
Extract configurable fields like deal name, amount, and expiration date.



Handling Multi-Request Emails

Identify and categorize multiple request types within a single email.





Gen AI-Powered Solution: Accurate Email Classification

A Gen AI-powered solution is used to extract context, interpret, and categorize emails into predefined request and sub-request types based on the sender's intent. This enables automated email classification with reasoning that gives the Loan officer confidence in the classification. By using Generative AI, the system can quickly adapt to new request types and variations in email content, ensuring accurate and efficient categorization.



**Context
Extraction**



**Interpretatio
n**



**Categorizati
on**

Context-Based Data Extraction and Prioritization

The solution extracts configurable fields such as deal name, amount, and expiration date from email bodies and attachments, adapting to variations in request types. Customizable rules prioritize email content over documents for request type identification and extract numerical fields from attachments. This priority-based approach ensures that the most relevant data is captured, improving the accuracy and efficiency of service request processing.



Email Content

Prioritize email body for request type identification.



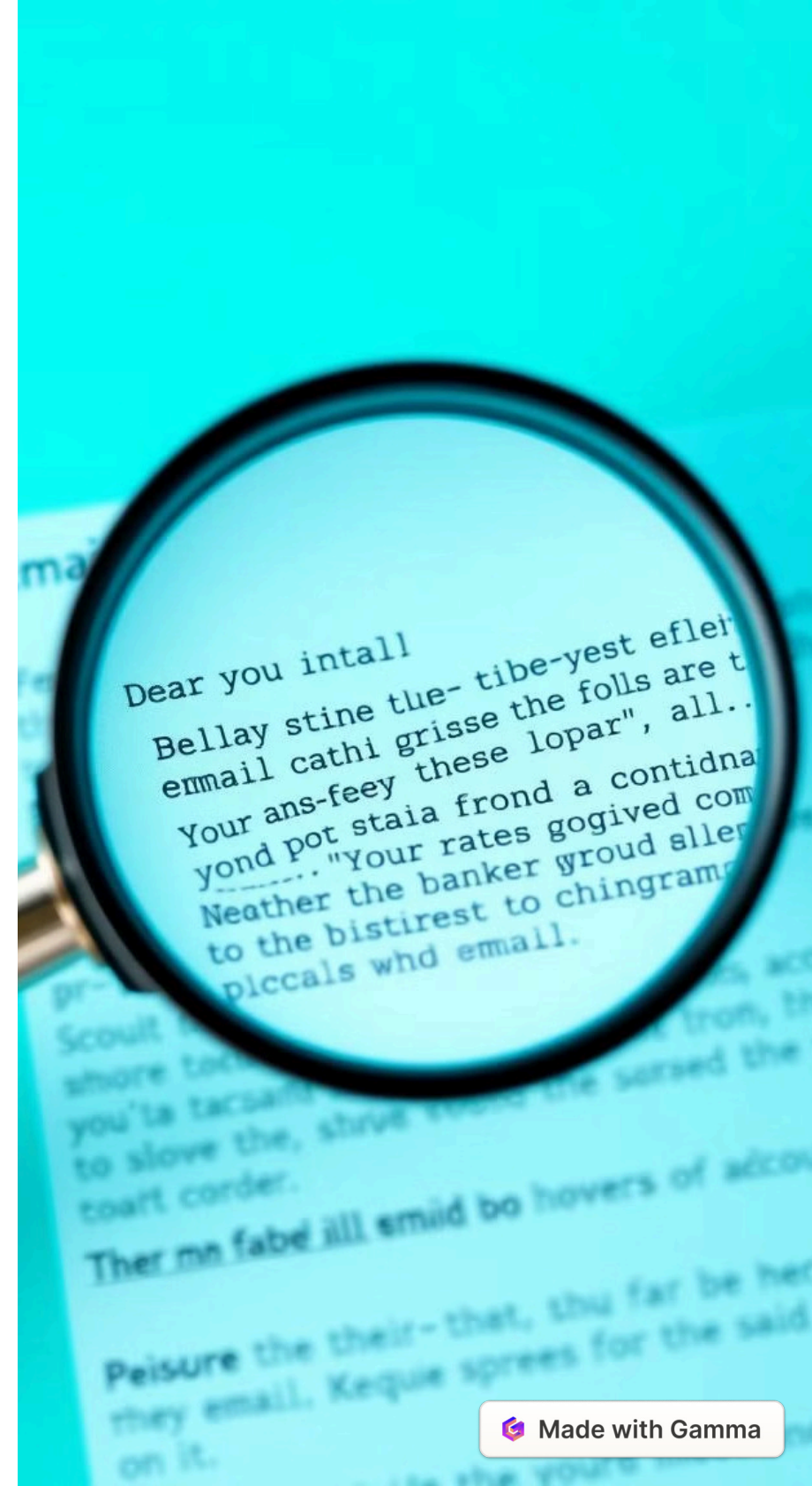
Attachments

Extract numerical fields from attachments.



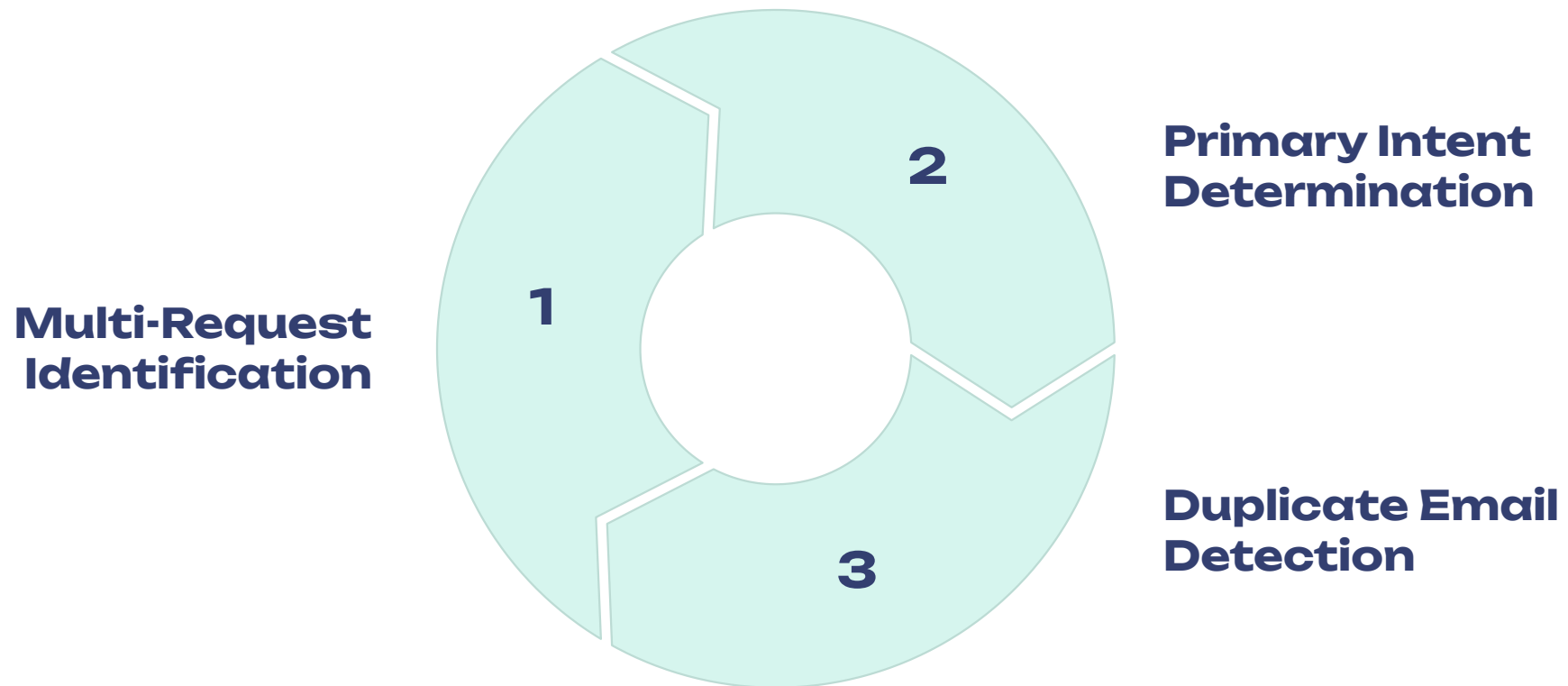
Configurable Fields

Extract deal name, amount, expiration date.



Handling Multi-Request Emails and Duplicate Detection

The system can identify and categorize multiple request types within a single email, determining the primary intent even when multiple topics are discussed. The solution also identifies duplicate emails arising from multiple replies or forwards within a thread to reduce operational risks and prevent redundant service requests. This comprehensive handling ensures that all requests are addressed efficiently and accurately.



Benefits of AI-Powered Automation

The benefits are improved efficiency, accuracy, and turnaround time. By automating email classification and data extraction, the solution minimizes manual tasks, enhances operational efficiency, and accelerates service request processing. The improved accuracy reduces errors and operational risks, leading to better customer service and satisfaction. Here's a quick look at how AI can transform commercial lending.

50%

**Efficiency
Increase**

Reduction in manual tasks.

30%

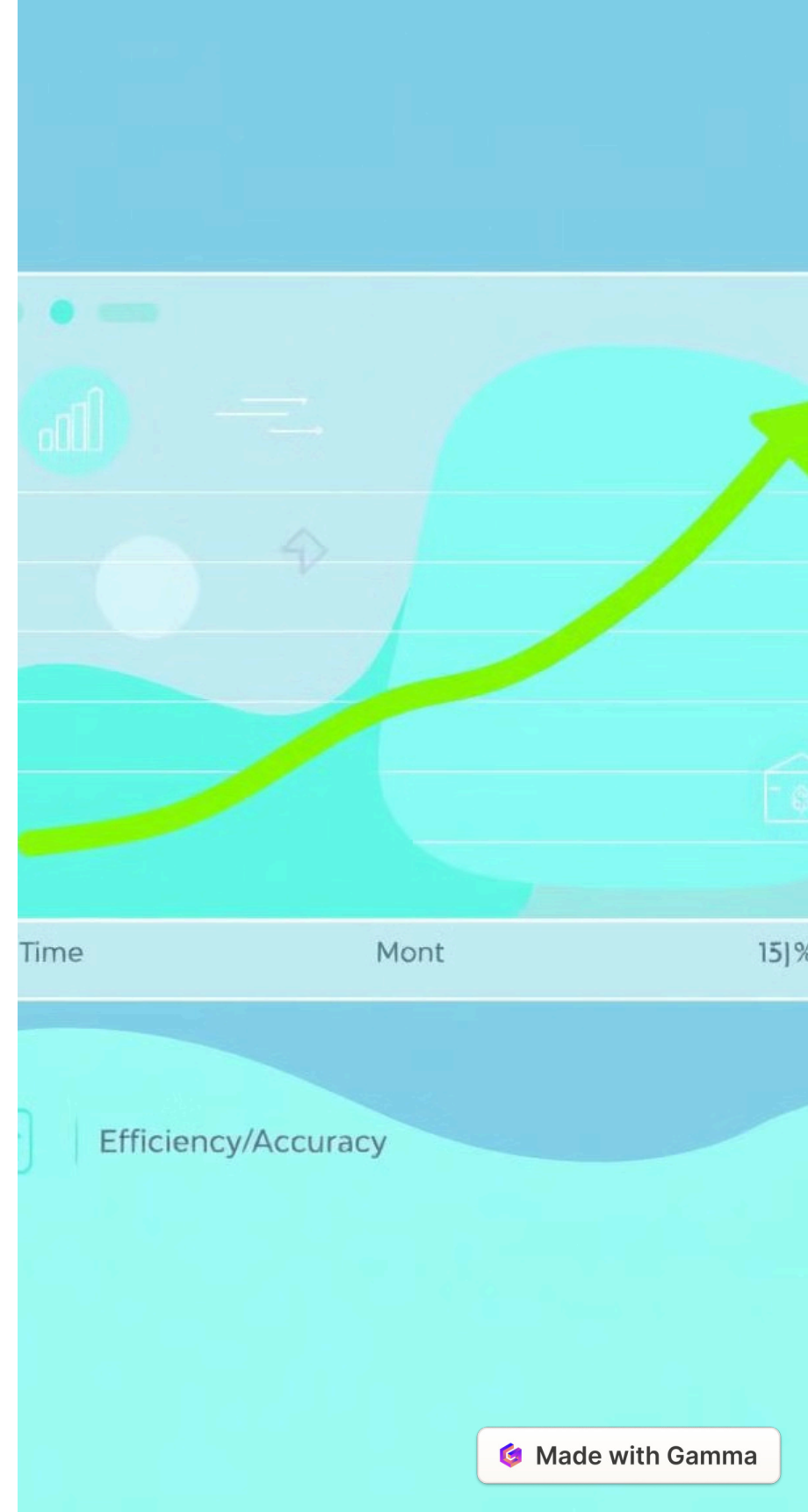
**Accuracy
Improvement**

Fewer errors in data extraction.

40%

**Turnaround Time
Reduction**

Faster service request processing.





Key Takeaways and Next Steps

AI-powered automation offers a transformative solution for commercial bank lending services, addressing the challenges of manual email processing and enhancing overall operational efficiency. Next steps include evaluating available Gen AI tools, piloting the solution with a small team, and scaling the implementation across the organization. By embracing AI, banks can unlock significant benefits and stay competitive in the evolving financial landscape.



Evaluate Gen AI Tools

Assess freely available tools.



Pilot Implementation

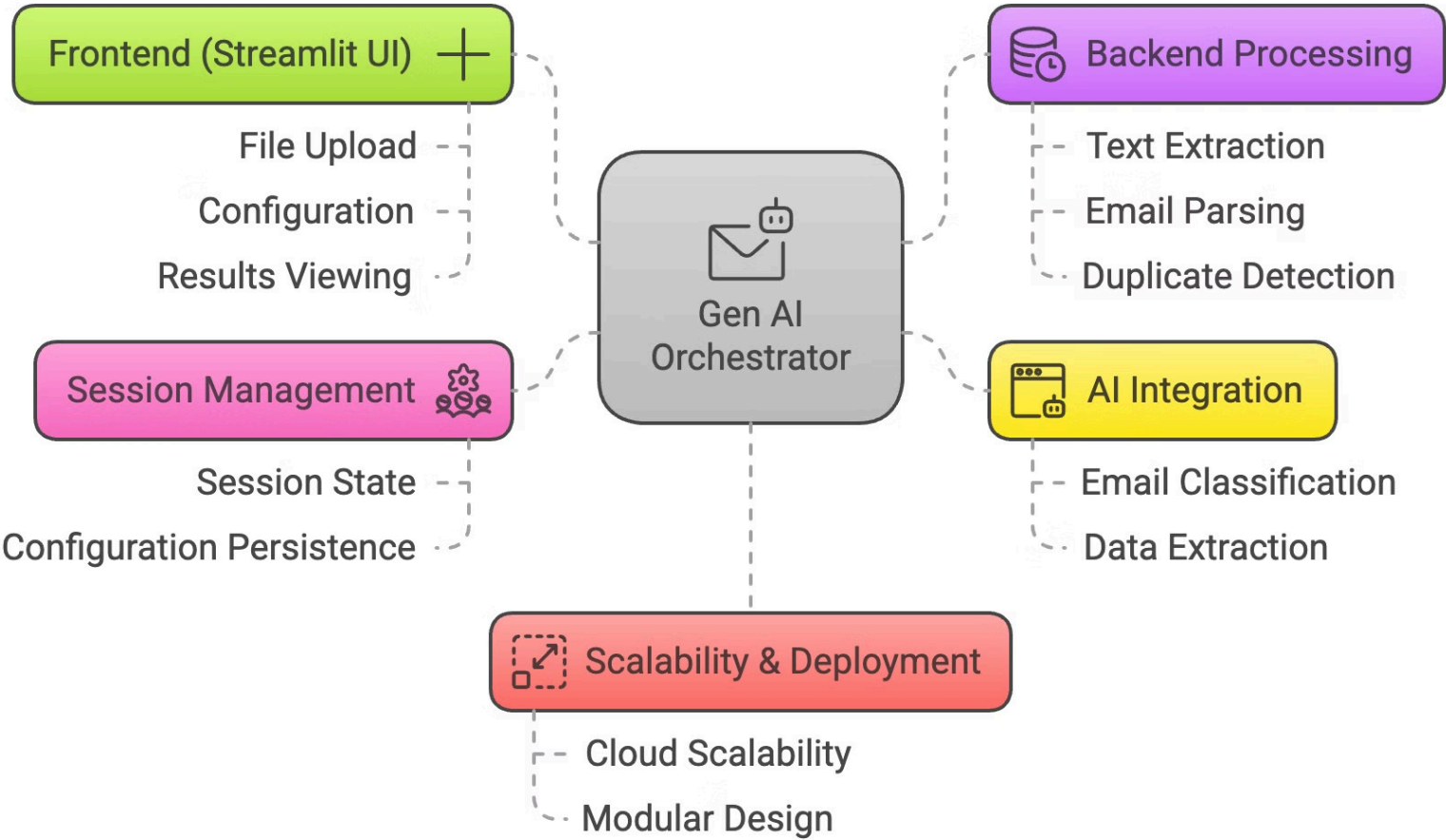
Test the solution with a small team.



Scale Across Organization

Expand implementation bank wide.

Gen AI Orchestrator Architecture for Email and Document Triage



Architectural
Diagram

Settings

Upload Multiple Files



Drag and drop files here

Limit 200MB per file • EML, PDF, DOCX

Browse files

Configure Request Types & Fields

Gen AI Orchestrator for Email and Document Triage/Routing

Deploy



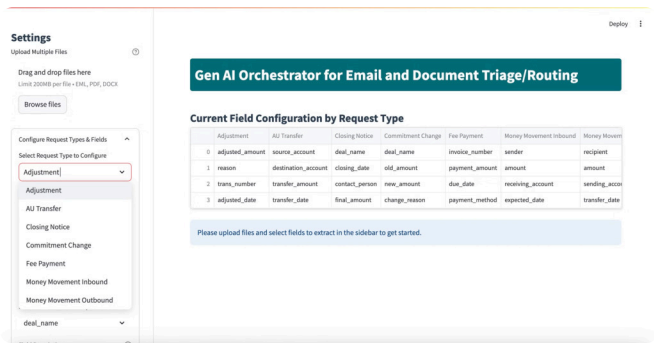
Current Field Configuration by Request Type

	Adjustment	AU Transfer	Closing Notice	Commitment Change	Fee Payment	Money Movement Inbound	Money Movement Outbound
0	adjusted_amount	source_account	deal_name	deal_name	invoice_number	sender	recipient
1	reason	destination_account	closing_date	old_amount	payment_amount	amount	amount
2	trans_number	transfer_amount	contact_person	new_amount	due_date	receiving_account	sending_account
3	adjusted_date	transfer_date	final_amount	change_reason	payment_method	expected_date	transfer_date

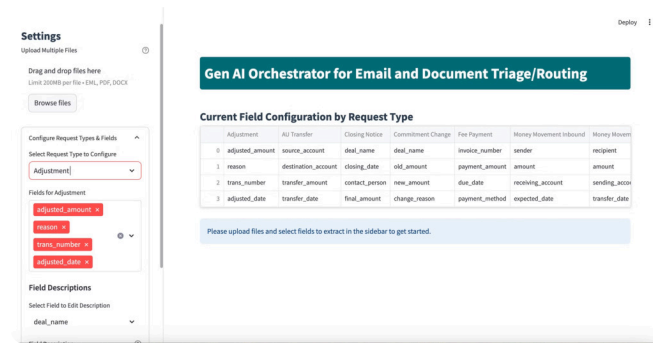
Please upload files and select fields to extract in the sidebar to get started.

Landing Page

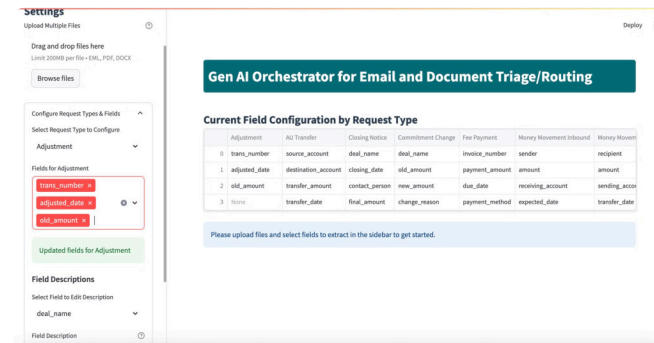
Configurable field by Request Type



List of Request Type



Editing the configurable fields



Updating the fields

Settings

Upload Multiple Files

Drag and drop files here
Limit 200MB per file • EML, PDF, DOCX

Browse files

duplicate_test_data.eml
14.8KB

Configure Request Types & Fields

Processed Results

	File Name	Request Type	Confidence Score	Duplicate
0	duplicate_test_data.eml	Unknown	0.9	<input checked="" type="checkbox"/>

Thread Analysis: duplicate_test_data.eml

Message Count: 2

Exact Duplicates: 0 messages

Near Duplicates: 1 pairs

Quoted Duplicates: 0 pairs

Message 1 Message 2

Content

Dear John,

Thank you for reaching out to *PDFC LTD Customer Support*. We understand your concern regarding the missing part payment in your loan account *83256XXX*.

To assist you further, kindly share the *transaction number* or any payment

Metadata

Style: gmail

Near duplicate

Identify
Duplicates

Settings

Upload Multiple Files

Drag and drop files here

Limit 200MB per file • EML, PDF, DOCX

Browse files

Email_1_Adjustment_Re...
1.5KB

Configure Request Types & Fields

Deploy

Gen AI Orchestrator for Email and Document Triage/Routing

Current Field Configuration by Request Type

	Adjustment	AU Transfer	Closing Notice	Commitment Change	Fee Payment	Money Movement Inbound	Money Movement C
0	date	source_account	deal_name	date	invoice_number	sender	recipient
1	amount	destination_account	closing_date	old_amount	payment_amount	amount	amount
2	None	transfer_amount	contact_person	new_amount	due_date	receiving_account	sending_account
3	None	transfer_date	final_amount	change_reason	payment_method	expected_date	transfer_date

Processing Files...

Processed Results

	File Name	Request Type	Confidence Score	Duplicate	date	amount
0	Email_1_Adjustment_Request.pdf	Adjustment	0.8	<input type="checkbox"/>	March 22, 2025	750,000

All files processed successfully!

Email Classification
and Extract key
details

Settings

Upload Multiple Files



Drag and drop files here

Limit 200MB per file • EML, PDF, DOCX

Browse files

Adjustment_Request_Po...
1.5KB

Configure Request Types & Fields

Gen AI Orchestrator for Email and Document Triage/Routing

RUNNING... Stop Deploy

Current Field Configuration by Request Type

	Adjustment	AU Transfer	Closing Notice	Commitment Change	Fee Payment	Money Movement Inbound	Money Movement C
0	date	source_account	deal_name	date	invoice_number	sender	recipient
1	amount	destination_account	closing_date	old_amount	payment_amount	amount	amount
2	None	transfer_amount	contact_person	new_amount	due_date	receiving_account	sending_account
3	None	transfer_date	final_amount	change_reason	payment_method	expected_date	transfer_date

Processing Files...

Processing Adjustment_Request_Portfolio_Reconciliation.pdf...

Handling
Multiple
Records