

Revolutionizing Commercial Bank Lending with AI-Powered Automation

In today's dynamic financial landscape, Commercial Bank Lending Service teams grapple with a surge of servicing requests flooding in through emails. This presentation unveils a transformative journey towards automating email classification and data extraction using Generative AI, enhancing efficiency, accuracy, and turnaround time. Join us as we explore the challenges, innovative solutions, and remarkable results of this groundbreaking initiative.



The "Gatekeeper" Bottleneck: A Manual Triage Challenge

Traditionally, incoming service requests via email necessitate a manual triage process, managed by a "Gatekeeper." This individual painstakingly reads and interprets email content and attachments, identifies the intent, classifies request types, extracts key attributes, and assigns requests to the appropriate team or individual based on roles and skills.

Inefficiency

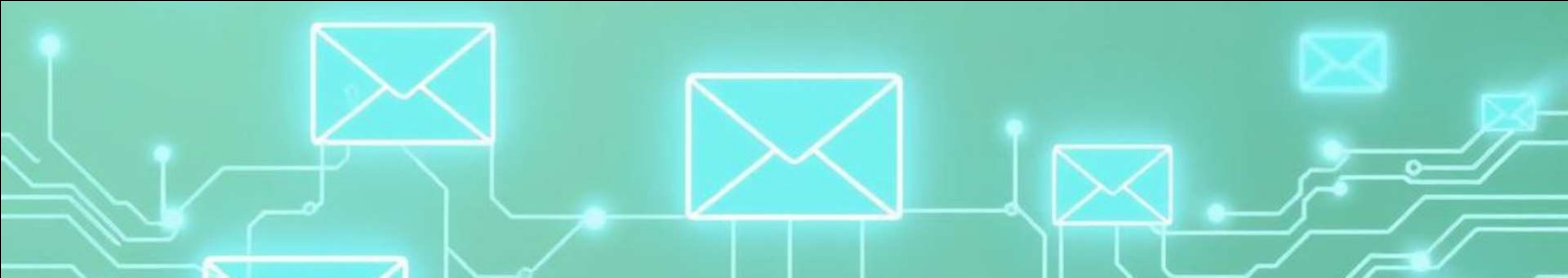
Time-consuming manual process

Error-Prone

Prone to errors, especially with large volumes

Gatekeeper Dependency

Relies heavily on "Gatekeeper" expertise



Generative AI to the Rescue: Automating Email Classification

The core challenge lies in automating email classification and data extraction using Generative AI (LLMs). By leveraging freely available tools, we aim to develop a solution that can accurately classify emails, extract relevant information, and auto-route service requests to the correct processors based on skill-based routing. The goal is to minimize, if not eliminate, the need for manual gatekeeping activities.



Email Classification

Automatically classify email intent and request type.



Data Extraction

Extract key attributes from emails and attachments.



Auto-Routing

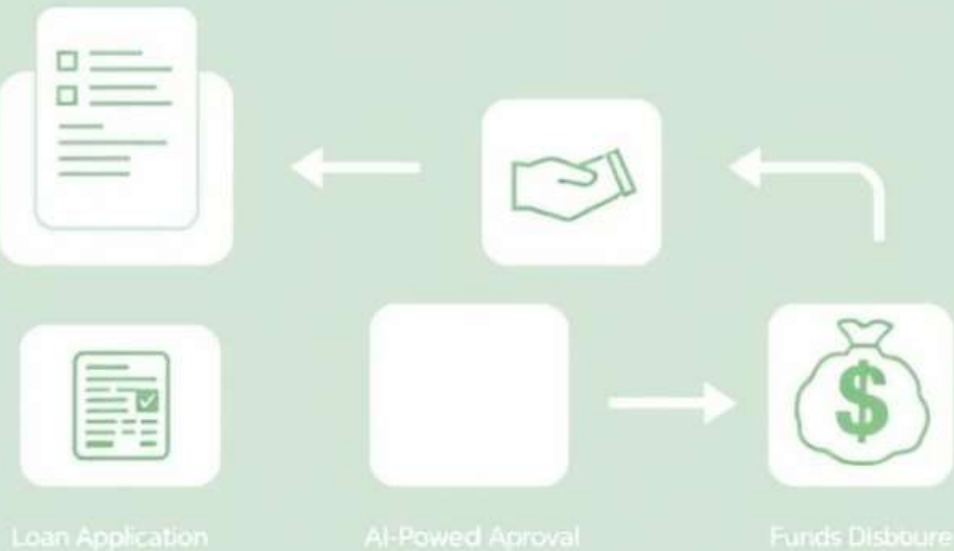
Route service requests based on skills.

Our Strategic Approach: A Multi-Faceted Solution

Our strategic approach involves leveraging the power of Generative AI models to understand the nuances of email content. The AI model will read and interpret emails, including attachments, to determine the intent and classify the "Request Type" and "Sub Request Type." Key attributes are then extracted, and service requests are automatically populated.

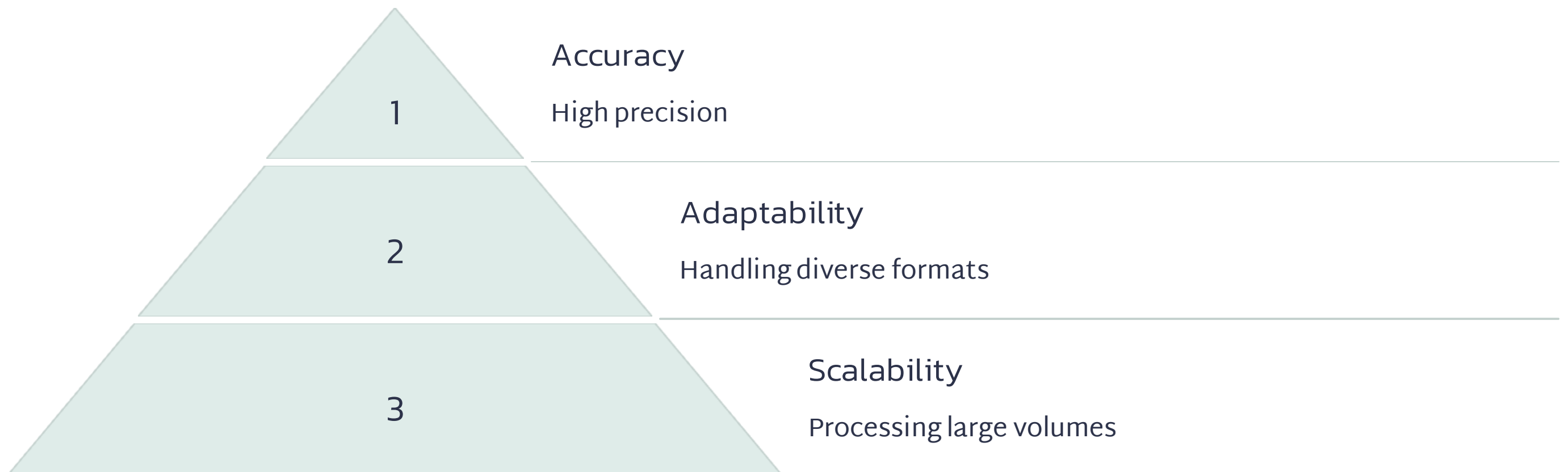


Commercial Bank service platting



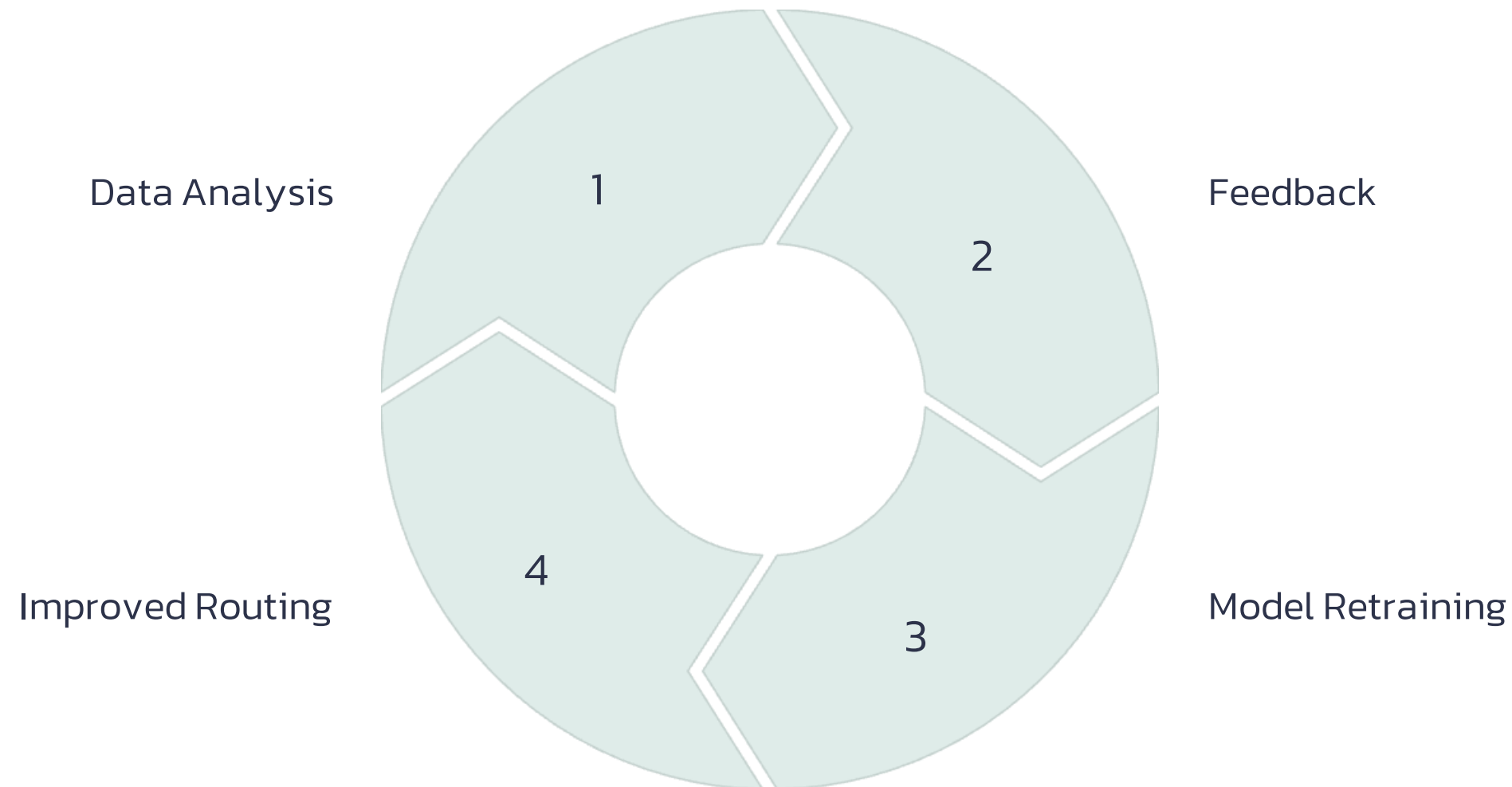
Overcoming the Challenges: Data Diversity and Model Training

One of the significant challenges is the diversity of email content and attachments. To address this, we employ a robust data augmentation strategy, which involves creating synthetic data to supplement the real-world data. This ensures that the AI model is trained on a comprehensive dataset, enabling it to handle various email types and formats effectively.



Future Enhancements: Skill-Based Routing and Continuous Learning

Looking ahead, we plan to integrate skill-based routing, ensuring that service requests are automatically assigned to the most qualified team or individual. Additionally, we will implement a continuous learning mechanism, where the AI model learns from new data and feedback, further improving its performance over time. This iterative process will enable us to adapt to evolving business needs and maintain a high level of accuracy.





Key Takeaways and Next Steps

In summary, our AI-powered solution revolutionizes commercial bank lending by automating email classification and data extraction. By leveraging Generative AI and addressing the challenges of data diversity, we have achieved significant improvements in efficiency, accuracy, and turnaround time. The next steps involve integrating skill-based routing and continuous learning to further enhance the system's performance. We will begin pilot projects to measure value and iterate.

Efficiency

Reduced manual workload

Accuracy

Improved classification and extraction

Satisfaction

Faster turnaround times

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Configure Request Types & Fields



Gen AI Orchestrator for Email and Document Triage/Routing

Current Field Configuration by Request Type

	Adjustment	AI 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

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Configurable Fields By Request Type

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Configure Request Types & Fields

Select Request Type to Configure

Adjustment

Adjustment

AU Transfer

Closing Notice

Commitment Change

Fee Payment

Money Movement Inbound

Money Movement Outbound

deal_name

Deploy

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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
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3	adjusted_date	transfer_date	final_amount	change_reason	payment_method	expected_date	transfer_date

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Configure Request Types & Fields

Select Request Type to Configure

Adjustment

Fields for Adjustment

adjusted_amount

reason

trans_number

adjusted_date

Field Descriptions

Select Field to Edit Description

deal_name

Deploy

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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
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3	adjusted_date	transfer_date	final_amount	change_reason	payment_method	expected_date	transfer_date

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Configure Request Types & Fields 

Select Request Type to Configure

Adjustment 

Fields for Adjustment

trans_number x

adjusted_date x  

old_amount x |

Updated fields for Adjustment

Field Descriptions

Select Field to Edit Description

deal_name 

Field Description 

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 Outbound
0	trans_number	source_account	deal_name	deal_name	invoice_number	sender	recipient
1	adjusted_date	destination_account	closing_date	old_amount	payment_amount	amount	amount
2	old_amount	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

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Classification and Extraction of Data

 RUNNING... [Stop](#) [Deploy](#) 

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 Adjustment_Request_Po... 
1.5KB

[Configure Request Types & Fields](#) 

Gen AI Orchestrator for Email and Document Triage/Routing

Current Field Configuration by Request Type

	Adjustment	AI 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...

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Email_1_Adjustment_Re...
1.5KB

Configure Request Types & Fields



Deploy



Gen AI Orchestrator for Email and Document Triage/Routing

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	Adjustment	AU Transfer	Closing Notice	Commitment Change	Fee Payment	Money Movement Inbound	Money Movement Outbound
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!

Identifiying Duplicates

Settings

Upload Multiple Files ?

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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