Leave Request Automation System

Streamline Leave Requests with Google Apps Script

Smart Web Form

Leave Request Form

- ☑ Auto-Fill Employee Details
- ☑ Multiple Leave Dates
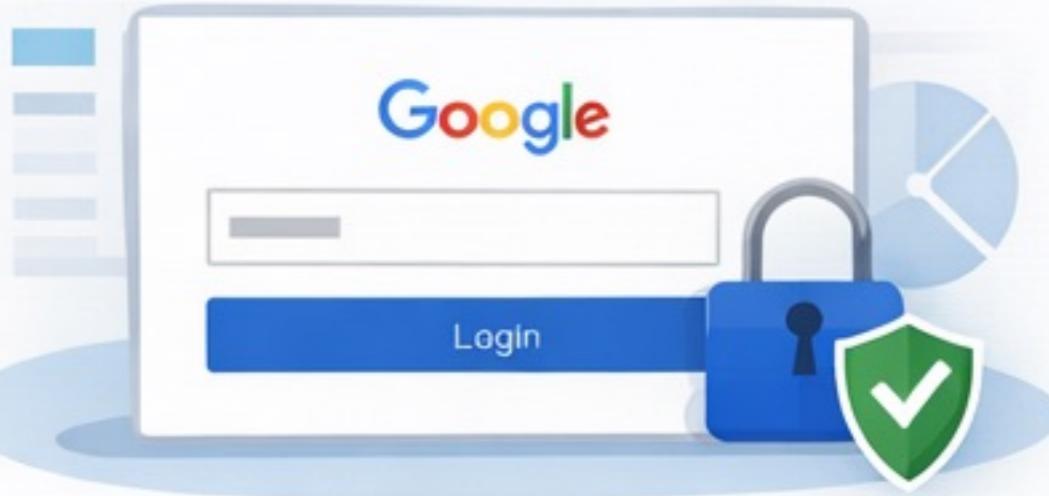- ☑ Validation & Alerts
- ☑ No Duplicate Entries

Backend Automation

Google Apps Script

- ☑ Google Sheets Integration
- ☑ Server-Side Processing
- ☑ Prevent Duplicate Requests
- ☑ Automated Logs & Timestamps

Automated Notifications

- ☑ Instant Email Confirmations
- ☑ Status Updates to Employee & Leads

Scalable & Secure

Google Login

- ☑ Google Workspace Access
- ☑ Centralized Data in Sheets
- ☑ Secure & Auditable

Key Benefits

80% Less Manual Work	Error-Free Tracking	Centralized Records

1. Employee Submits Request

Leave Request Form

Employee ID: EMP123

Name: John Doe

Shift: Morning Shift

Select Leave Type: Vacation Leave

Leave Dates: May 10, 2024   Add Date

Reason for Leave (Optional):
Attending family function

Submit Request
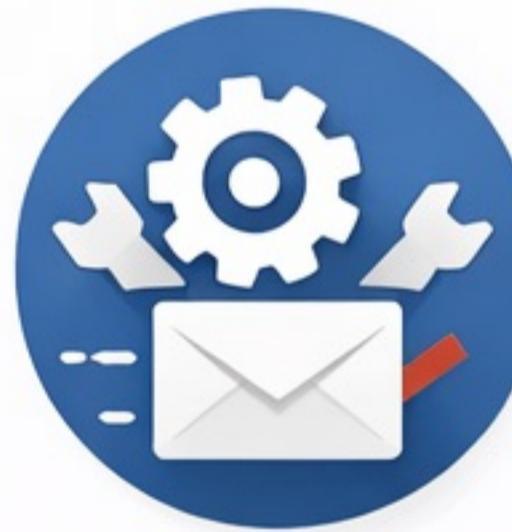
Fills out the leave form & submits.

2. Data Logged in Google Sheet

Leave Requests
File Edit View Insert Format Tools Actions Help

	A	B	C	D	E
1	Employee ID	Name	Leave Type	Leave Dates	Status
2	EMP123	John Doe	Vacation Leave	10-May-2024	Pending.
3					
4					
3					

Request is logged in the sheet.

3. Lead Approves Request

Leave Requests
File Edit View Insert Format Tools Help

	A	B	C	D
1	Employee ID	Name	Leave Type	Status
2	EMP123	John Doe	Vacation Leave	10-May-2024
3	EMP123	John Doe	Vacation Leave	Approved
4				
5				

Lead updates status in Google Sheet.

4. Automated Email Notification

Gmail

Leave Request Approved

Dear **John Doe (EMP123)**,

Your leave request has been approved.

Leave Type: **Vacation Leave**

Leave Date: **10-May-2024**

Enjoy your time off!

Employee receives approval email.

Leave Request Automation System

1. Employee Submits Leave Request

Leave Request Form

John Doe

EMP12345

john.doe@example.com

☑ Morning Shift   ☑ Lead: Jane Smith

May 10, 2024   May 12, 2024

Submit Request

Employee fills out the web form and submits leave request.

2. Leave Recorded in Google Sheets

Leave Requests ☆ 📁 ☁   Last edit saas.crt

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fx

	A	B	C	D
1	**Employee Name**	**Employee ID**	**Leave Dates**	**Status**
2	John Doe	EMP12345	May 10, 2024	Pending
3			May 12, 2024	
4				

Request logged in Google Sheets for lead's review.
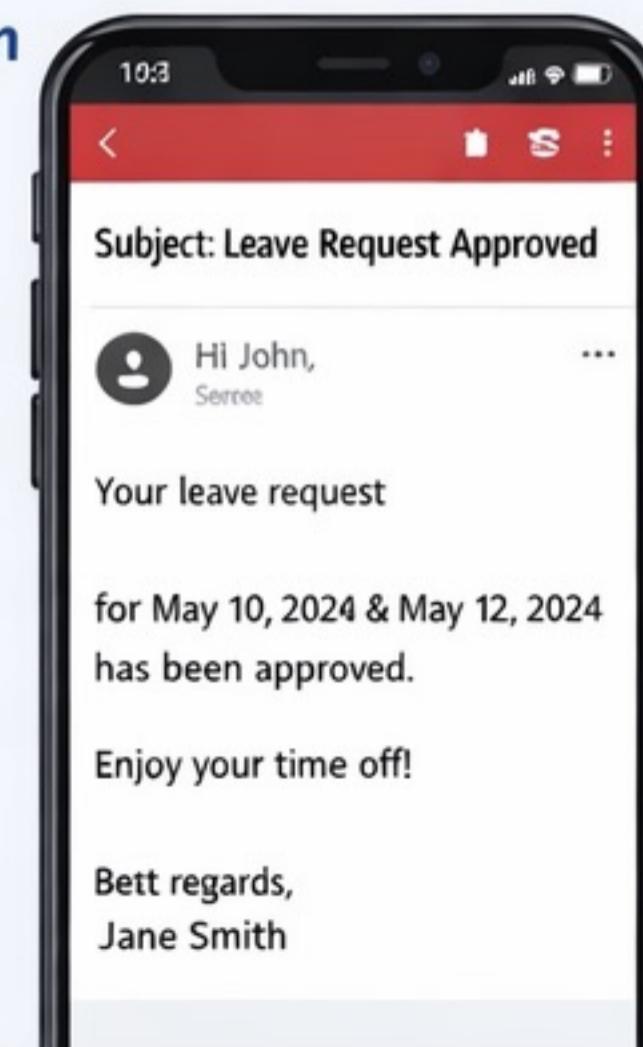
3. Lead Reviews & Updates Status

Leave Requests ☆ 📁 ☁   Last edit saved

File   Edit   View   Insert   Format   Dain   Add-ons   Help

↶ ↷ 🖨 T   100% ▾ $ %   .₀   .0₁   123 ▾   ...

fx

	A	B	C	D
1	**Employee Name**	**Employee ID**	**Leave Dates**	**Status**
2	John Doe	EMP12345	May 10, 2024	Approved
3			May 12, 2024	
4				

*Lead changes the status to "**Approved**".*

4. Automated Email Notification

10:3

Subject: Leave Request Approved

Hi John,
Series

Your leave request

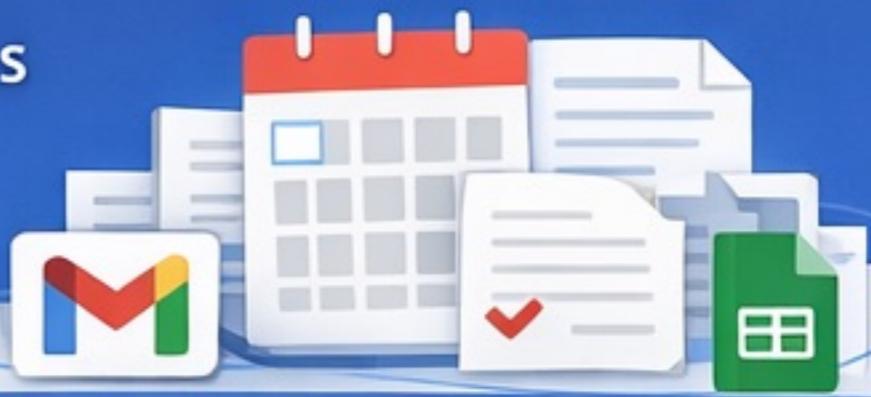for May 10, 2024 & May 12, 2024
has been approved.

Enjoy your time off!

Bett regards,
Jane Smith

Employee receives approval email

Mortgage Document Correction Automation Tool

Streamline Correction Requests for Mortgage Teams
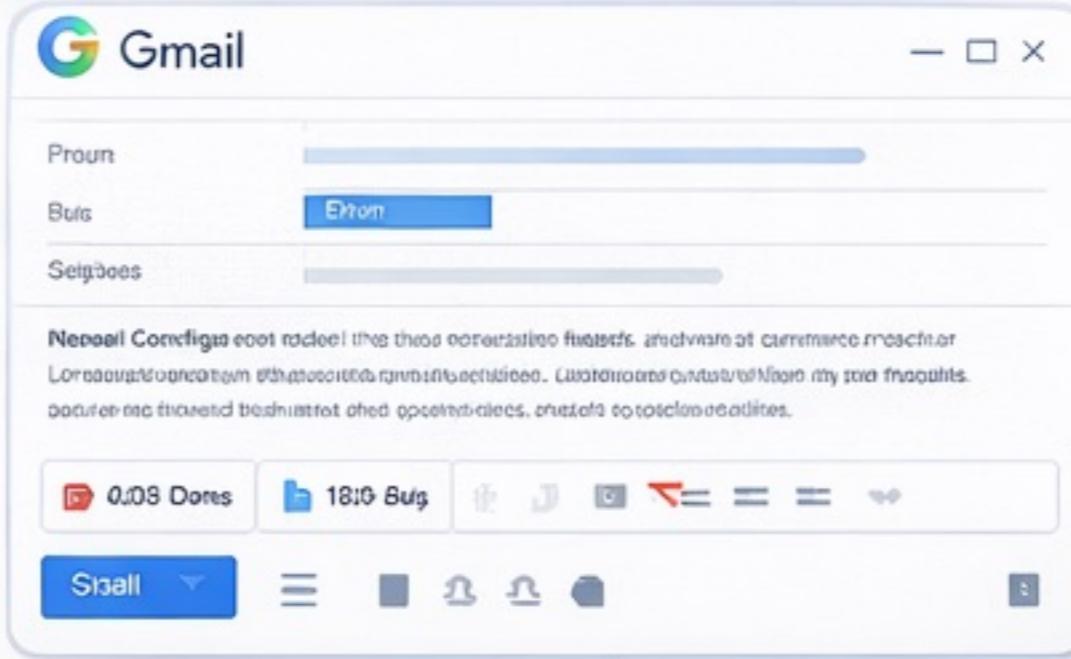Using Google Apps Script & Gmail API

Dynamic Web App Interface

Mortgage Correction Form ✕

Correction Type
Loan Number
Last Name
Property Address

Next

- ☑ Responsive HTML Form
- ☑ Select Correction Type
- ☑ Enter Loan & Borrower Details
- ☑ Load To/CC Emails from Sheets

Error Prevention & Validation

- ☑ Validations for Required Fields
- ☑ Validate Email & Attachments
- ☑ Display Real-Time Feedback

Integrated Google Sheets Configuration

- ☑ EmailConfig Sheet Integration
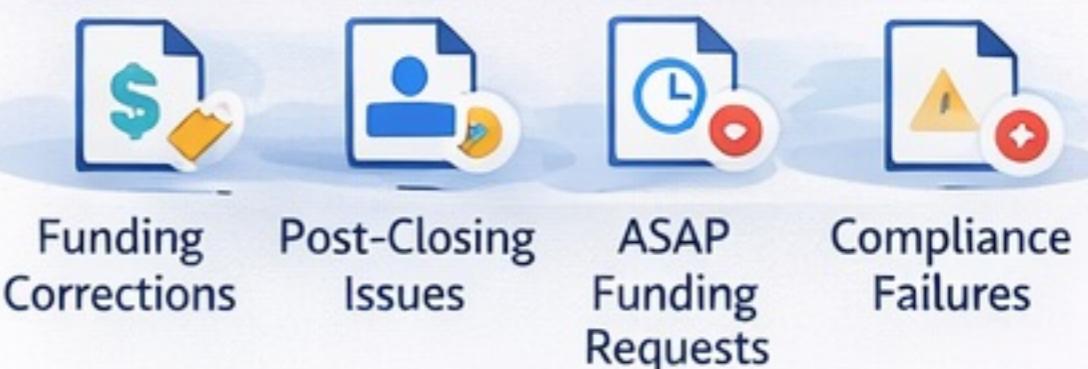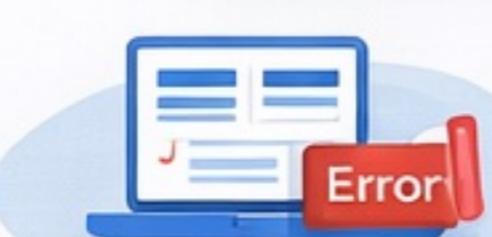- ☑ Update To/CC & Templates
- ☑ No Code Modification Required

Automated Gmail Draft Creation

G Gmail

- ☑ Funding Corrections
- ☑ Post-Closing Issues
- ☑ ASAP Funding Requests
- ☑ Compliance Failures

Supports Multiple Workflows

Funding Corrections | Post-Closing Issues | ASAP Funding Requests | Compliance Failures
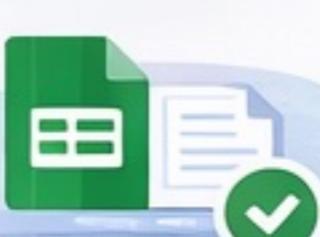
Impact & Benefits

70-80% Faster Drafting

Consistent Emails & Attachments

Real-Time Updates from Sheets

Improved Team Productivity

- ☑ 70-80% Faster Drafing
- ☑ Consistent Emails & Attachments
- ☑ Real-Time Updates from Sheets
- ☑ Improved Team Productivity

Mortgage Document Correction Automation Tool

1. User Fills Out Correction Form

Correction Request Form

Funding Delay ▼

Loan Number: 12345678

Borrower Last Name: Smith

Property Address: 123 Main St, Springfield, IL

Attachments

📄 Upload PDFs   ⟨ⁱ⟩   **Generate Draft**

User fills out the web form with loan and correction details.

2. Gmail Draft Generated

☰ **Gmail**   _ ⤢ ✕

To: exampeloanmanager@egmail.com ✕

Cc: anotherprocessor@egmail.com ✕   +2 more ▾   Cc Ɓ

Urgent Funding Delay: 123 Main St, Springfield, IL., 12345678

Hi [Loan Team],

We have identified the olowing issue that must be corrected before we can fund the loan for John Smith at 123 Main St, Springfield, IL.

Loan #: 12345678

📄 Docs-To-Update.pdf   ...

Draft Gmail with prefilled recipients, subject, and details is created.

3. User Receives Confirmation

✅

Draft Created

Your correction email draft has been creadled.

Click the link below to open the draft in Gmail:

✉ **Open Draft in Gmail**

Tool displays "Draft Created" message with a direct draft link.

4. User Reviews and Sends Draft

☰ **Gmail**   _ ⤢ ✕

To: exampelloanmanager@egmail.com ✕

Cc: anotherprocessor@egmail.com ... ✕   +2 more ▾

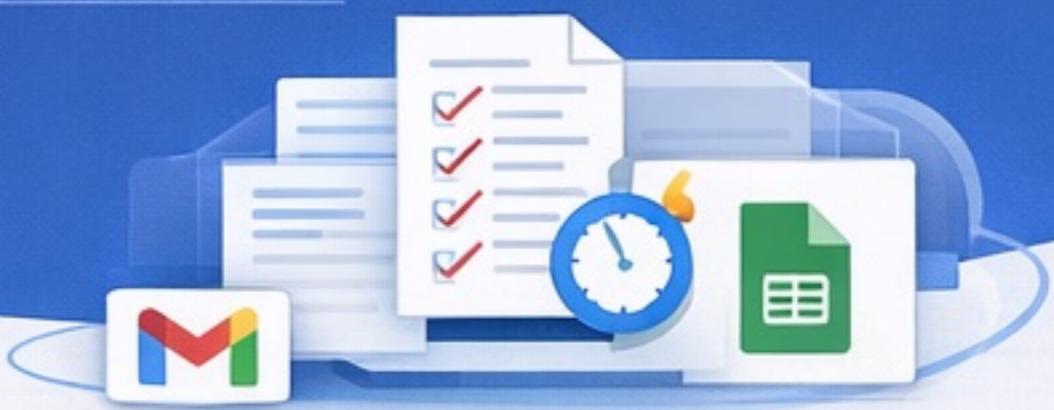Urgent Funding Delay: 123 Main St, Springfield, IL, 12345678   Cc Ɓ

Hi [Loan Team]
We have identified the following issue that must be corrected before we can fund the loan for John Smith at 123 Main St, Springfield, IL. Loan #: 12345678

Send ▾   🔵 📷 🔗 🖼 ⊙ ☁ ✎ $ ✒

User clicks the link to open and send the Gmail draft instantly.

Mortgage Escalation & RCA Automation System

Automate Mortgage Escalations & RCA Processes
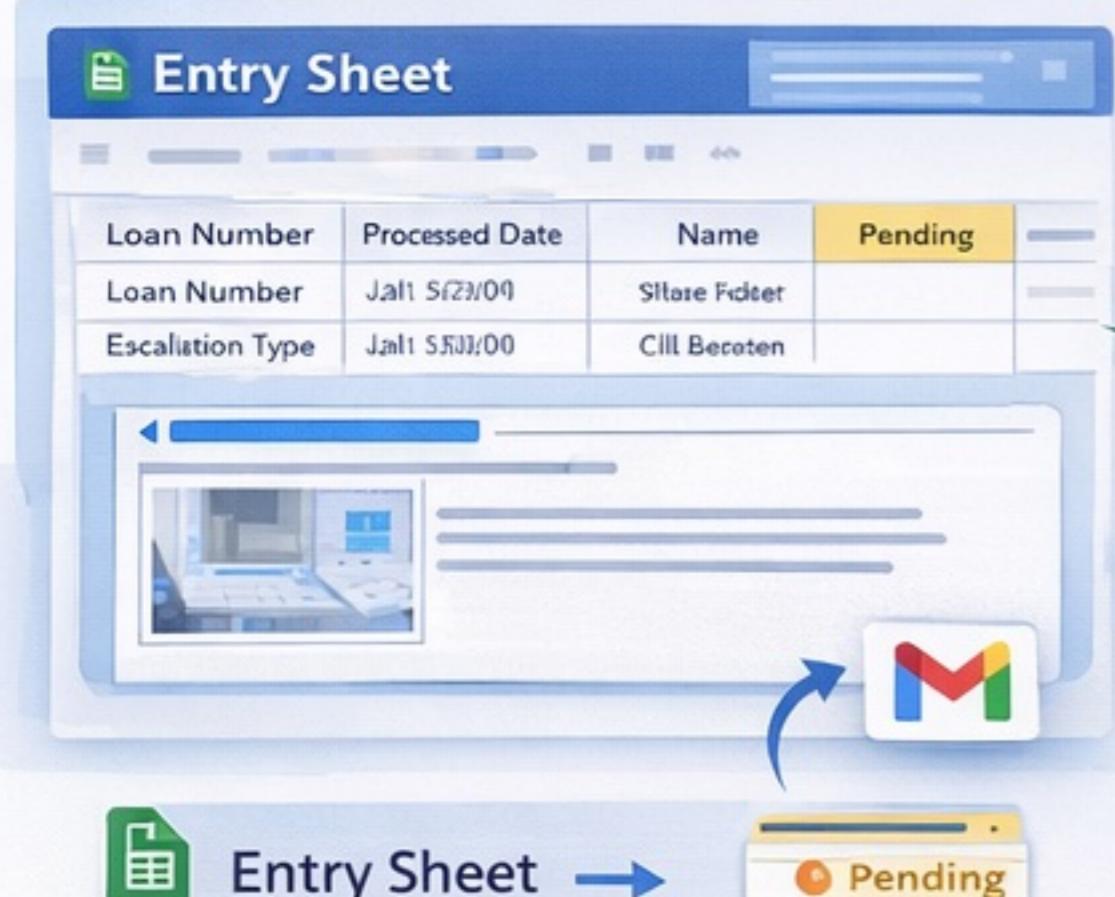Using Google Apps Script, Sheets, & Gmail API

Overview

A fully automated Escalation and RCA (Root Cause Analysis) Management **Tool** developed using Google Apps Script, HTML, CSS, JavaScript, and the Gmail API, integrated with Google Sheets. The system automates the entire workflow of raising, tracking, and resolving mortgage escalations — by sending structured escalation emails, tracking RCA submissions, and sending automated reminders —
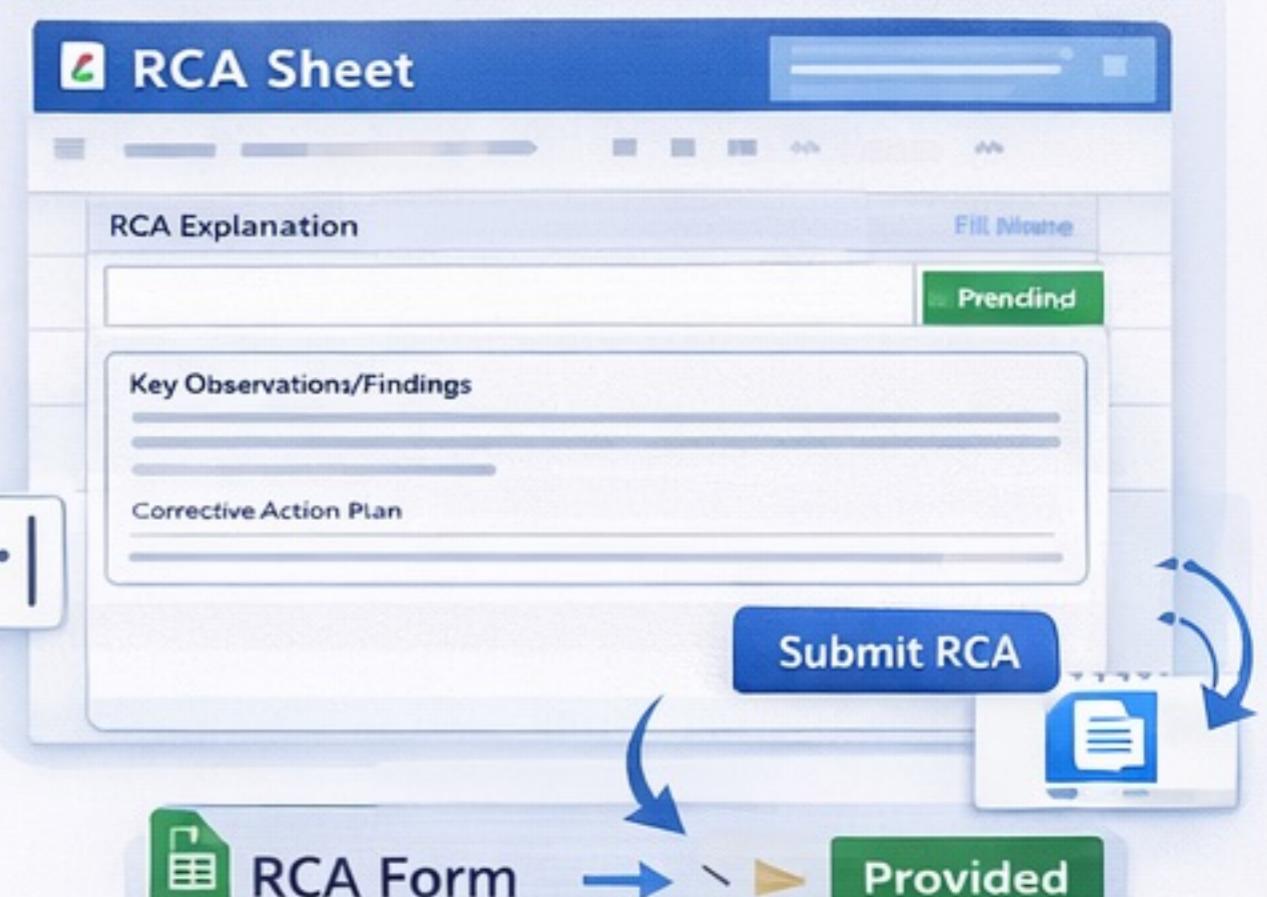
System Workflow

1. Escalation Form

- ❧ Submit escalation details online
- ❧ Auto-add **"Pending"** entry to sheet
- ❧ Send structured escalation email (To/CC)

Entry Sheet

Loan Number	Processed Date	Name	Pending
Loan Number	Jan 5/23/00	Stare Folder	
Escalation Type	Jan 5/00/00	Cll Becoten	

Entry Sheet → Pending

- ❧ Submit escalation details online
- ❧ Auto-add "Pending" entry to sheet
- ❧ Send structured escalation email (To/CC)

2. RCA Form

- ❧ Open RCA link from email
- ❧ Fill RCA Explanation, Findings, and Actions
- ❧ Automate status update to "Provided"

RCA Sheet

RCA Explanation — Prending

Key Observations/Findings

Corrective Action Plan
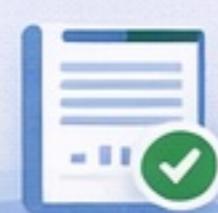
Submit RCA

RCA Form → Provided

- ❧ Open RCA link from email
- ❧ Fill RCA Explanation, Findings, and Actions
- ❧ Automate status update to "Provided"

Impact

- 80% Less Manual Follow-Ups
- ✅ Improved Accountability
- Centralized Tracking
- ✅ Automated Reminders

Mortgage Escalation & RCA Automation System

1. User Submits Escalation Form

Escalation Submission Form

Loan Number: 12345678
Processed Date: April 24, 2024
Name: John Doe
Escalation Type: Funding Issue
Error Description: Incorrect calculation of funds to close.

Submit Escalation

User fills out the web app form with escalation details and submits.

2. Escalation Logged & Email Sent

Escalations ☆ 📁 ☁
File Edit View Insert Format Data Tools Addlons Help   Last edit art ssas cat

100% $ % 38 123 Dos

	A	B	C	D	C
1	Loan Number	Processed Date	Name	Escalation Type	Status
2	12345678	4/24/2024	John Doe	Funding Issue	Pending
3					
4					
5					
6					
7					

Mortgage Escalation: Loan # 12345678, Funding Issue

Dar jalve Smith,

Kertuuge ate ccessor@egmail.eful 01 immodate hescet.

Pleaa Smiths tms escalt'ion to complete the escalation dasks atsus.

DEL HEFe fGA1

Click Here to submit RCA

Details logged in Google Sheets and formatted escalation email sent to team lead.

3. Team Submits RCA

RCA Submission Form

RCA Explanation:
There was an incorrect calcultion in funds to close due to an outdated formula error.

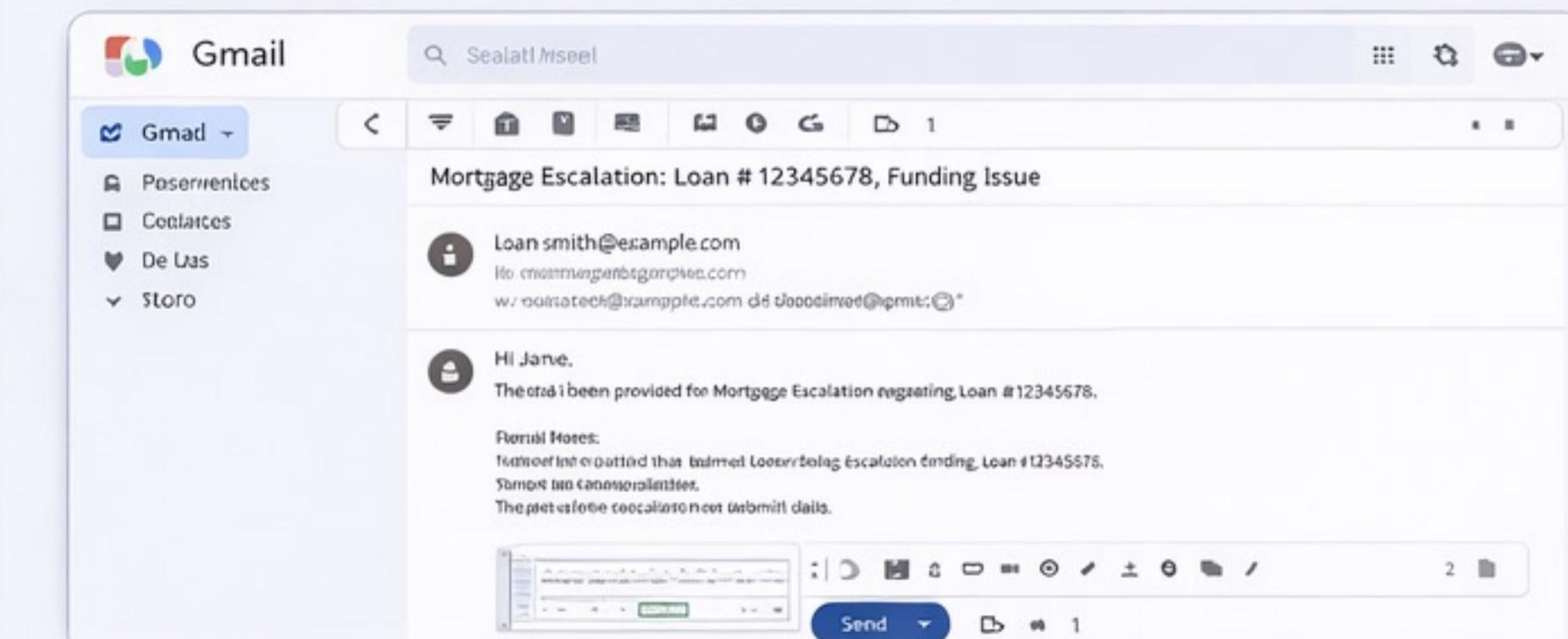Key Observations:
Identified outdated funds calculation formula.

Corrective Action Plan:
Implemented updated formula and retrained staff.

Submit RCA

Team lead clicks "Click Here" link, fills out RCA form, provides expal-

4. Status Updated & Email Sent

Gmail   Q Sealatl hseel

Gmail
Poserwnices
Contaces
De Uas
Storo

Mortgage Escalation: Loan # 12345678, Funding Issue

Loan smith@example.com

Hi Jane,
The sha i been provided for Mortgage Escalation regarding Loan #12345678.

Formil Howes:

Send

Escalation status updates and reply-all email confirms RCA resolution.

Mortgage Funding Delay Tracker

Automatically Log All Funding Delay Emails
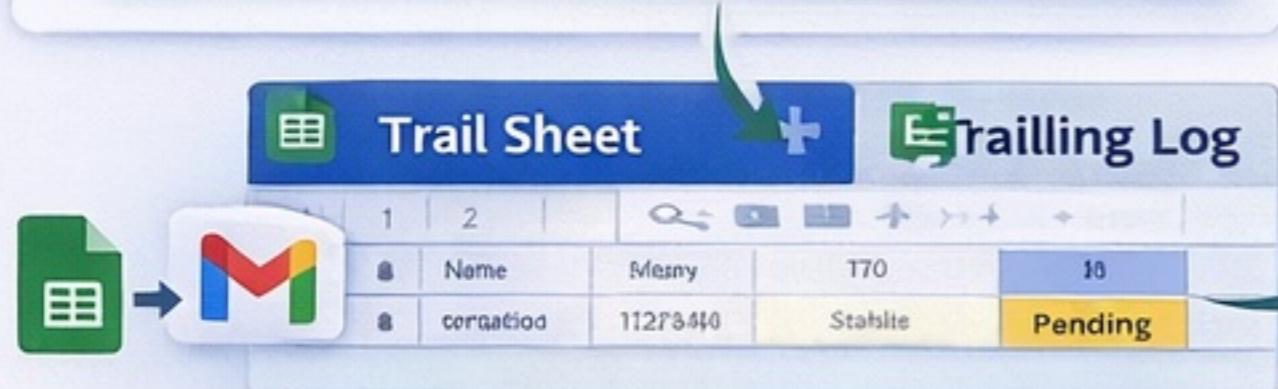for Easy Tracking & Auditing

Project Overview

An automation script built using Google Apps Script that integrates Gmail and Google Sheets to automatically log all funding delay email conversations for each loan number. The system reads loan data from the Trail sheet, copies it to a Trailing log, and fetches all related email threads from Gmail — saving hours of manual searching and ensuring that all communication history is easily traceable for audit or follow-up.

How It Works

1. Data Logging from 'Trail' to 'Trailing'

* Whenever a new row is added in the Trail sheet, the script automatically copies columns A:H into the Trailing sheet.

  ✅ Creates a permanent log entry

Trail Sheet

	1	2			
	Name	Mesny	170	18	
	corpation	112'3'440	Stabile	Pending	

2. Automated Gmail Conversation Extraction

Trailing Log

Mo8

These Fea ot 3PLAIR
Compoe hien om apptaed Clumuing G6OR 2S0 and
Aad toer SLI73A 2A1 Conoptoet poctt er ore roat. Loan
nan a ngober Ime See Cobes, An iner atime -- 3 Iraiinior.

🔍 subject: "Urgent Funding Delay" subject:"loanNo"
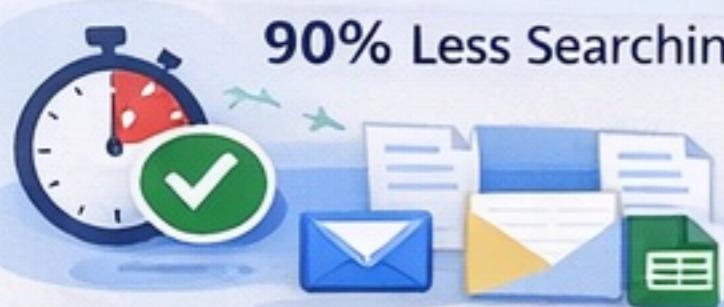
3. Conversation Cleanup and Storage

* Text cleansed for readability & summarized per loan
* Extracts sender names, timestamps, and plain text content
* Appends cleaned-up summary to the same row

3. Conversation Cleanup and Storage

Trailing Log

	Loan Number	Email	Giname
1	1771 PM	Tos ettit coopaes from cuming Ooto decy. Atee ohe eonot, an afuruse taoes in ohe lng reques, 194AAIAAAES	
2	77-6SSIS	SUPRICS ELAR8 LEGES T6GAES FOP OANlun tor hon Mauhoques. angh osmftes theene ITOICTA wm6T In reolsaktos, floranbee ppao	
3	6:55 PM	Trese Oe boples, eril tore statiny ch ali po conit request phames, comieoorttoet. Qeay tn erarfzod clmeny jomr istaction seberios.	
4	4:55 PM	Expaued stoan m ecoited PECGNIATD SAHICS, anun Manlogn and than eationt coopgeattarn sontrastorger oraxiaoo IiIGRospioes, tiny maigh bootgo. and a heratt sicatloe top on athictariton utrsloiv.	

Impact

90% Less Searching

* ✅ Reduced **manual searching** for email threads by approximately **90%**
* ✅ Ensured every funding delay conversation is centrally logged and
* ✅ Improved visibility for **management** on communication timelines
* ◼ Enhanced efficiency and transparency in the loan funding escalation process

Mortgage Funding Delay Tracker

1. New Loan Entry in Trail Sheet

	A	B	B	C	
1	Loan Number	Borrower Name	Reason	Reason	
2	12345624	Jane Brown	New Broe	Missing signature	
3	12345677	Marh Date	Lead VIEw	Cleance	
4	98765432	Jane Brown	Missing signature	Missing signature	
6					
5					
5					

A new row for a delayed loan is added in the Trail sheet.

2. Trail Data Logged in Trailing Log

The script scans Gmail, retrieves all related delay emails for "98765432".

3. Related Emails Extracted from Gmail

	A	B	C	D
1	Loan Number	Borrower Name	Reason	Reason
2	98765432	Jane Brown	Funding Issue	Missing signature
6	98765432	Jane Brown	Missing signature	
6				
4				
5				

A new row for a delayed loan is added in the Trail sheet.

4. Emails Logged in Trailing Sheet

Communication Log

	A	
1	Loan Number	Communication Log
6	98765432	Connor Williams - Apr 25, 2024 9:15 AM
3	937633432	"Hi, we're still waiting on the updated signed docs. Loan# 98765432..."
4	98765432	Jane Brown - Apr 25, 2024 3:02 PM
5	012.2.4024	"Here is the document, pleasive review and confirm. Loan# 98765432..."
6	98765432	Team Lead - Apr 25, 2024 11:45 AM
6	012.2.4024	"This leanl is pending due to misting bomy borrower signature. Loan# 98765433..."

All related emails are extracted, cleaned up, and logged in the Trailing log.