

YouTube Script Generator

1. Use Case Title

- YouTube Script Generator & Approval Workflow

2. Use Case Description

This workflow automates the creation, review, and logging of YouTube video scripts. When a user submits a video idea and target duration via a web form, the workflow uses AI to generate a detailed video script. The script is sent to a manager for approval via email. Upon approval, key script details are logged to Google Sheets. Robust error handling is in place for every critical step. This automation saves time for content teams, ensures quality through human review, and provides an auditable log for future reference.

3. Workflow File (.json)

- Attached file named 'YT Script Generator.json'

4. Workflow Documentation

Workflow explanations as follow:

a. Node Breakdown

Node Name	Node Type	Purpose	Key Settings/Expressions Used
On form submission	Form Trigger	Collects video idea and duration from user.	`formTitle`, `formFields`, `webhookId`
Merge	Merge	Combines form submission and other input data.	`combineByPosition`, `includeUnpaired`
Agent: Create YT Script/Rewrite YT Script	AI Agent (Groq)	Generates or refines YouTube video script using AI.	Dynamic prompt based on form input
Groq Chat Model	Language Model	Provides LLM service for the AI Agent node.	Credentials, model selection
Send a mail to Content Team	Gmail (Send & Wait)	Sends script to content team manager for approval, collects response	Custom form (Respond dropdown, Notes field)

If	IF	Checks for manager's approval/disapproval.	`\$json.data.Respond`
Code	Code	Extracts structured fields from AI-generated script.	JS code normalizing headings, error handling
Append row in sheet	Google Sheets (Append)	Logs approved script to Google Sheets.	Maps fields: Video Title, Description, Tags, etc.
If1, If2, If4	IF	Additional data validation and branching.	Various checks for data existence and approval
Stop and Error nodes	Stop and Error	Terminates flow and logs error at critical points.	Custom error messages

b. Flow Explanation**Step-by-Step Logic****1. Start:**

Triggered by form submission (`On form submission` node).

2. Merge:

Combines form data for script generation.

3. Script Generation:

AI Agent node creates/refines a YouTube video script.

4. Review:

- Script sent via Gmail node to manager for approval.
- Manager responds (Approve/Decline, Notes).

5. Approval Branching:

- IF node checks for manager response.
- If declined, workflow logs error and stops.
- If approved, continues to next step.

6. Script Extraction:

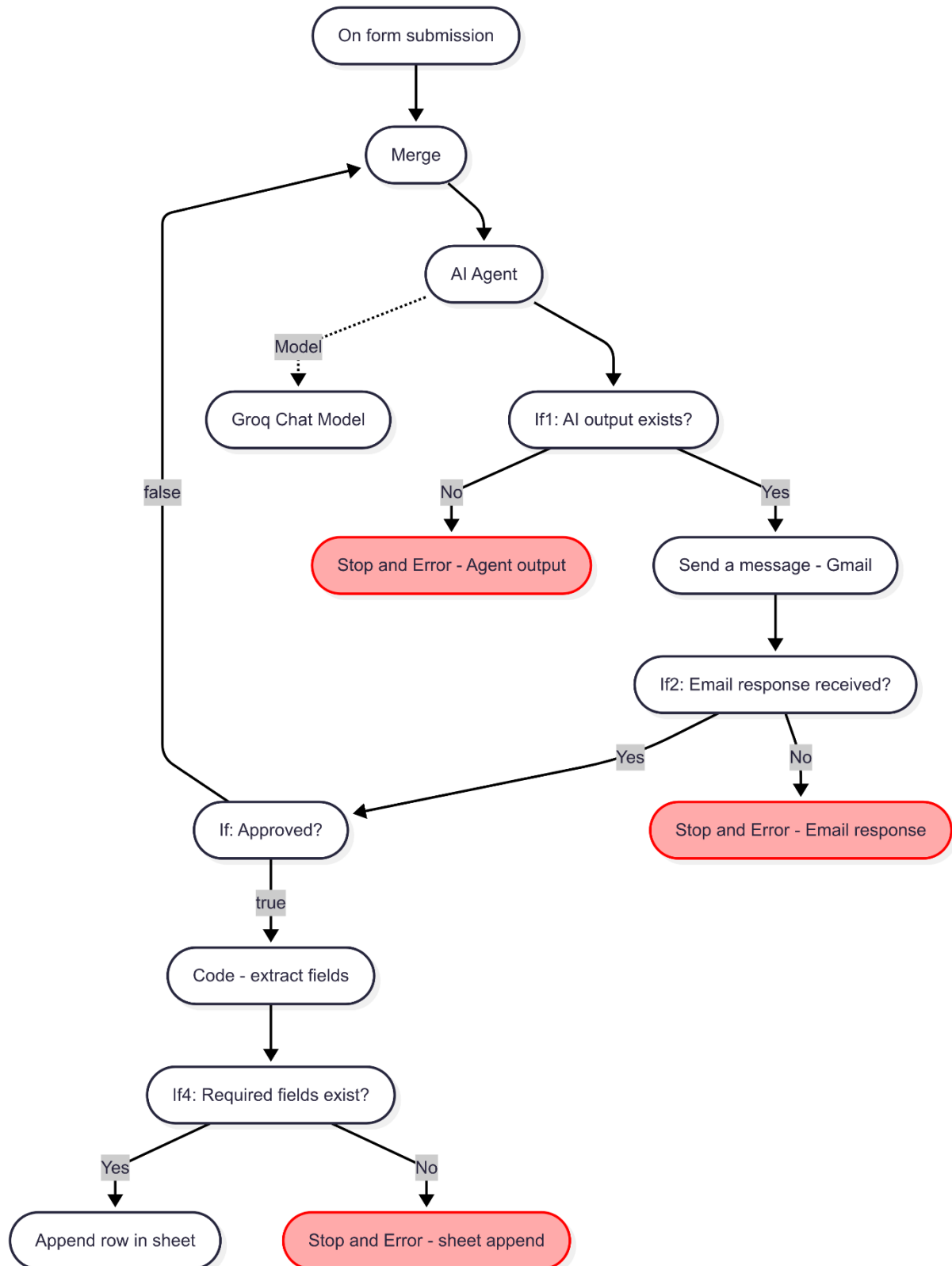
Code node parses AI output to extract fields (Title, Description, etc.), with error handling for missing fields.

7. Logging:

Google Sheets node logs all relevant script details for future reference.

8. Error Handling

Stop and Error nodes halt the workflow and log errors if form data, email response, or sheet append fail

Flow Chart**5. Error Handling Strategy**

- **Error Trigger Workflow:**
 - Configured in workflow settings (Global Error Handler) to catch uncaught errors globally.
- **Stop and Error Nodes:**
 - Used after form validation, email response, and sheet append to halt

workflow and log error.

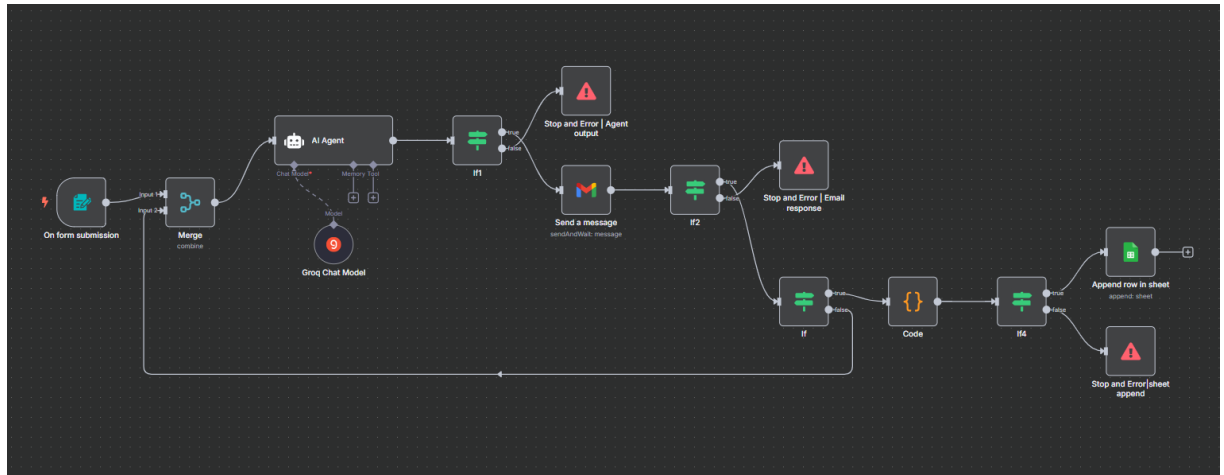
- **IF Nodes for Data Validation:**
 - Used throughout to check for required fields and correct states.
- **Manual Review:**
 - Manager can decline/rewrite scripts, improving quality.

6. Assumptions and Requirements

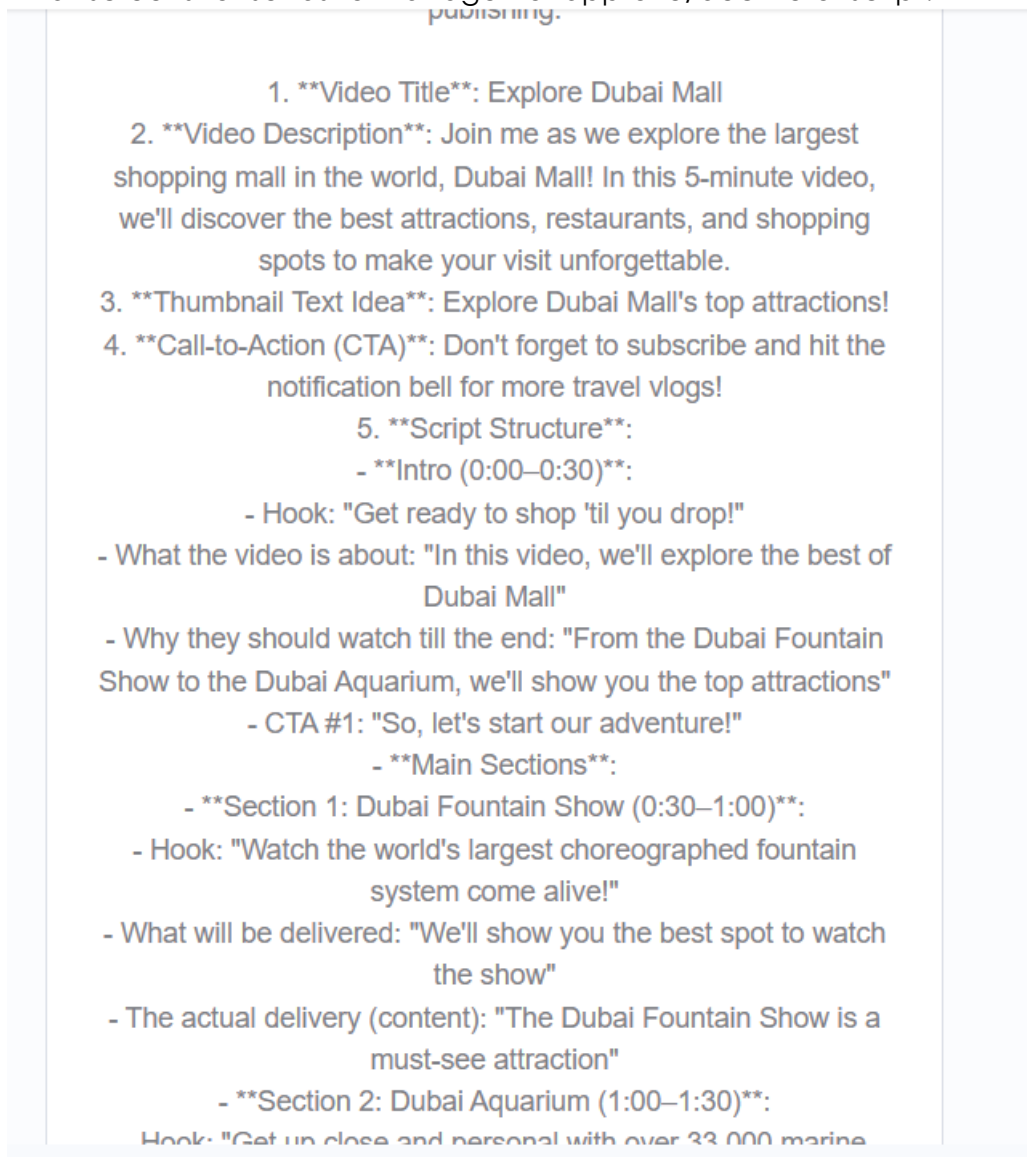
- **APIs & Credentials:**
 - Google Sheets (OAuth2)
 - Gmail (OAuth2)
 - Groq AI (API Key)
- **Environment Setup:**
 - n8n running on localhost
- **Test Data:**
 - Google Sheet with columns: Video Title, Description, Tags, Hashtags, etc.
- **Manager Email:**
 - Valid email address for approval process

Screenshots

- Screenshot of the workflow:



- Email screenshot sends to manager for approve/decline of script:



- Global error handler:

