AI Agent Challenge Documentation

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Tools or Libraries Used

- **Platform:** n8n (No-code automation tool)

- **AI Model:** Google Gemini (via Gemini Node)

- **Trigger:** Manual Trigger Node

- **Data Processing:** Merge Node and Gemini Node

- **Output Options:** Google Docs / Notion Integration

Step-by-Step Workflow

1. **Manual Trigger Node:** The workflow begins with a manual trigger that initiates the process manually inside n8n.

2. **Content Extraction:** Add an **HTTP Request** or **Google Docs Read** node to extract content from a blog, article, or video transcript.

3. **Text Merge (Optional):** Use the **Merge Node** to combine or clean text before processing.

4. **Google Gemini Node:** The Gemini node takes the extracted content as input and applies a structured prompt:

   > "You are an expert content repurposing AI. Take the following content and rewrite it as a short, engaging LinkedIn post with a friendly but professional tone."

   Gemini processes the text and generates a repurposed version such as a LinkedIn post, tweet thread, or summary.

5. **Output Delivery:** The final content can be sent automatically to Google Docs, Notion, or stored in n8n using integration nodes.

How the AI Agent Processes and Transforms Content

- The agent extracts raw text from a chosen source (blog, YouTube transcript, etc.).

- It identifies key ideas and rephrases them using the Gemini language model.

- The model reformats the content according to the user's chosen format — summary, social media post, or script.

- The result is concise, engaging, and ready for publication.

Challenges Faced

- Limited customization options for Gemini node fields inside n8n.

- Handling long input text sometimes exceeded Gemini's context limit.

- Formatting consistency across outputs (e.g., hashtags or bullet points) required prompt tuning.

Improvements Possible

- Automate content extraction from multiple sources simultaneously.

- Add scheduling with Cron node for daily automated repurposing.

- Integrate additional output channels such as Twitter or LinkedIn API for direct posting.