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This project demonstrates how to automate data collection from **RSS feeds** and store it in **Google Sheets** using **n8n** (a workflow automation tool).

I chose this topic because:

- RSS feeds are a **rich, real-time data source** (news, blogs, updates).
- Google Sheets is a **familiar, easy-to-use platform** for storing and analyzing data.
- Automation reduces manual effort and provides a **scalable solution** for continuous updates.

Tools & Technologies

- **n8n** → Open-source workflow automation tool (running in Docker).
- **Google Sheets API** → To connect and write data into Sheets.
- **RSS Feed** → Source of structured news data (used: [Hacker News RSS](#)).
- **Docker Desktop** → For containerized n8n setup.
- **GitHub** → To document and share the project.

Workflow Design

The workflow consists of 3 main nodes:

1. Trigger Node

- Node: When clicking 'Execute workflow'
- Purpose: Manual execution of the workflow for testing.

2. RSS Read Node

- Node: RSS Read
- Input: RSS feed URL (<https://hnrss.org/frontpage>).
- Output: List of news articles with fields like title, link, pubDate.

3. Google Sheets Node

- Node: Append Row in Sheet

- Operation: Append new rows to the sheet.
- Mapping:
 - **Title** → `{{ $json["title"] }}`
 - **URL** → `{{ $json["link"] }}`
 - **Date** → `{{ $json["pubDate"] }}`

Workflow Execution

- When executed, the workflow fetches **20 items** from Hacker News RSS.
- Each item is appended as a row in **Google Sheets**, with the article's title, URL, and published date.

Workflow Screenshot:

The screenshot shows the n8n workflow editor with a workflow named 'My workflow'. The workflow consists of three steps: 'When clicking "Execute workflow"', 'RSS Read', and 'Append row in sheet'. The 'RSS Read' step is connected to the 'Append row in sheet' step. The 'Append row in sheet' step is configured to append data to a Google Sheet. The workflow is currently inactive.

The 'Append row in sheet' step is selected, and the 'Logs' panel shows the execution details. The 'INPUT' section displays the data fetched from the RSS feed, and the 'OUTPUT' section shows the data being appended to the Google Sheet.

creator	title	link	pubDate	dc:creator	comments
ibobev	Is Zig's New Writer Unsafe?	https://www.openmymind.net/Is-Zigs-New-to-Unsafe/	Sat, 20 Sep 2025 14:12:30 +0000	ibobev	https://news.ycombinator.com/item?id=45313597

The 'OUTPUT' section shows the data being appended to the Google Sheet, with columns for Title, URL, and Date.

Title	URL	Date
{{ \$json["title"] }}	{{ \$json["link"] }}	{{ \$json["pubDate"] }}
{{ \$json["title"] }}	{{ \$json["link"] }}	{{ \$json["pubDate"] }}
{{ \$json["title"] }}	{{ \$json["link"] }}	{{ \$json["pubDate"] }}
{{ \$json["title"] }}	{{ \$json["link"] }}	{{ \$json["pubDate"] }}
{{ \$json["title"] }}	{{ \$json["link"] }}	{{ \$json["pubDate"] }}

Results

- Google Sheet automatically gets filled with fresh news headlines.
- No need for manual copy-pasting of articles.
- Can be extended to:
 - Filter only the latest article.

- Schedule hourly/daily updates.
- Push data into databases or dashboards.

Future Enhancements

- Use **RSS Feed Trigger** to auto-run when a new item is published.
- Add **deduplication logic** to avoid duplicates in Sheets.
- Integrate with **Slack/Email** for real-time alerts.

Conclusion

This project shows how **automation bridges multiple services**. By combining RSS with Google Sheets in n8n, we:

- Automated real-time data collection.
- Eliminated repetitive manual work.
- Built a workflow that's easy to extend and customize.