Under the Hood: How This AI Workflow Works (Reference)

> This page explains the background concepts used in the demo.It’s optional — you don’t need to understand everything here to follow the session.Makes Documentation - Router - Help Center

1) Trigger

What it is The trigger decides *when* the workflow runs.

In this demo

- Manual trigger (Run once)
- Can easily be replaced with:
    - Schedule (every 15 minutes)
    - Webhook
    - Form submission

Key idea

> No trigger = no agent.An agent only acts when something wakes it up.

2) Prompt (Stored as a Variable)

What it is The prompt is the agent’s **job description**.

Why we store it as a variable

- Easy to update in one place
- Reusable across multiple agents
- Cleaner than hardcoding instructions everywhere

What a good prompt includes

- Role (who the agent is)
- Task (what it must do)
- Constraints (length, tone, format)
- Output expectations

3) Make AI Agent (LLM Step)

What it does

- Reads the prompt
- Generates text based on instructions
- Returns raw output

Important limitations

- It does NOT remember things unless you give it memory
- It does NOT guarantee structure unless you enforce it
- It outputs text — workflows decide what happens next

Key mindset

> The AI generates content.The workflow decides what’s usable.

4 Router (Decision Logic)

What it isA router sends the same input down **different paths** based on rules.

Common use cases

- Different outputs (email vs document)

- Different audiences
- Different formats (short vs long)

In this demo

- Same prompt
- Different processing paths
- Different final actions

Important note

> Routers don't make decisions — *rules do*.

5) Text vs JSON Outputs (Very Important)

Plain Text

☑ Best for:

- Emails
- Documents
- Messages

☑ Pros:

- Simple
- Reliable
- Hard to break

✕ Cons:

- Not easily split into fields

Structured JSON

☑ Best for:

- Multiple outputs (option_1, option_2, etc.)
- Iterators
- Data stores

✕ Cons:

- Fragile if prompt isn't strict
- One formatting mistake = broken workflow

Golden rule

> If you don't need structure, don't force JSON.

6) Aggregators

What they do

- Combine multiple items into one output

Common uses

- Multiple AI responses → one email
- Iterator results → one document
- Multiple rows → one summary

Very important

> If your aggregator is empty, your upstream data didn't match what you expected.

This is the #1 cause of "it ran but nothing happened".

7) Iterators (Why You Sometimes Get Multiple Emails)

What they do

- Loop over items one by one

Common mistake

- Sending an email inside an iterator→ Result: multiple emails

Fix

- Aggregate first
- Send once at the end

8) Outputs (Where Results Go)

An agent isn't useful until something happens with the output.

Examples

- Email sent

- Notion page created
- Document saved
- Webhook triggered

Key idea

> No final output = no visible value.

9) Common Failure Modes (Normal, Not You)

- Empty arrays → prompt/output mismatch
- Null values → schema not enforced
- Duplicate emails → iterator without aggregation
- “It ran but nothing happened” → no final output module

These are **workflow issues**, not AI issues.

10) The Mental Model to Remember

Every agent follows this loop:

Trigger → **Prompt** → **Process / Decide** → **Output**

Everything else is an enhancement.