

# Agentic AI: The Evolution of Autonomous Action

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The screenshot shows a mobile application interface with a white background. At the top, there is a blue header bar with a thin blue horizontal bar above it. The main content area has a light gray background. In the top right corner of the main area, there is a small navigation bar with icons for signal strength, battery level, and a dropdown menu. Below this, the text "Agentic AI Syllabus" is displayed in a dark font, followed by a "Done" button. The central part of the screen contains a white rectangular box with a title and a list of topics. The title is "Agentic AI Syllabus" in red. Below it is a numbered list of 8 sections, each with a bullet point. The sections are: 1. Introduction, 2. Agentic AI workflows & components, 3. Architecture, 4. Protocols, 5. Frameworks, 6. Governance, 7. Agentic RAG, and 8. Use cases / Applications. At the bottom of the screen, there are three small green icons: a square with a plus sign, a circle with a dot, and a magnifying glass.

6:41

Agentic AI Syllabus Done

Agentic AI Syllabus

- 1. Introduction
  - What is Agentic AI?
  - Agentic AI vs generative AI
  - AI agent Development
  - Types of AI agents
- 2. Agentic AI workflows & components
- 3. Architecture
  - AI agent orchestration
  - Multi-agent system & collaboration
  - ReAgO
  - ReWOO
- 4. Protocols
- 5. Frameworks
- 6. Governance
  - AI agent metrics
  - AI agent evaluation
- 7. Agentic RAG
- 8. Use cases / Applications
  - Nbn tool
  - CrewAI tool

# Agency is the defining boundary between creation and execution

Dimension	Generative AI	Agentic AI
Primary Focus	Content synthesis and pattern recognition.	Autonomous decision-making and goal achievement.
Paradigm	Stateless, prompt-response interactions.	Stateful, long-term objective pursuit.
Core Logic	Predicting the <a href="#">next token</a>	Planning the <a href="#">next action</a> .

# Cognitive Engine

**Advanced cognition  
relies on multi-modal  
perception and  
recursive planning**

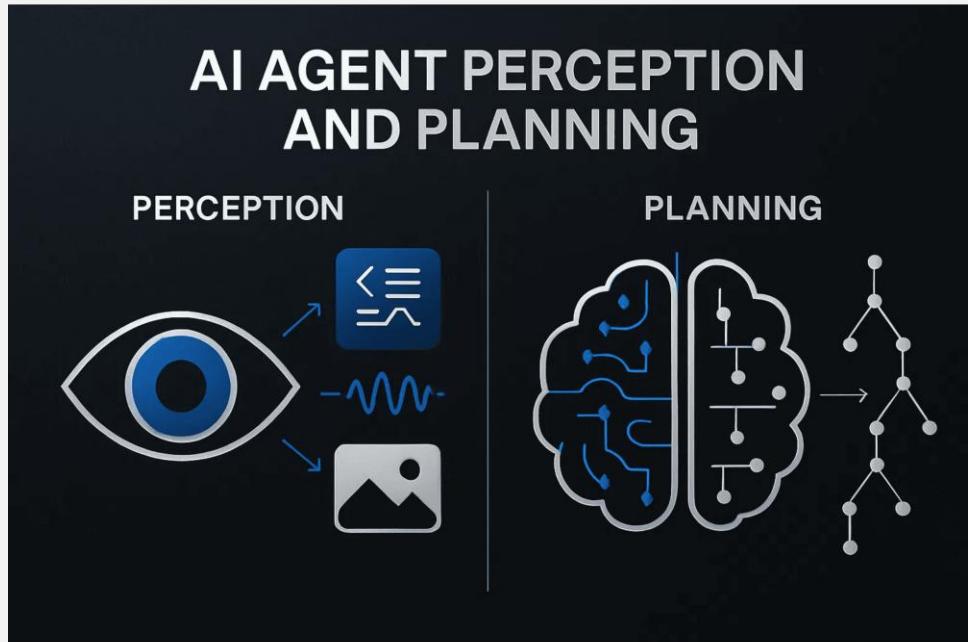
## Multi-Modal Perception

Agents ingest text, audio, visual and API data.

## Recursive Reasoning

Use Tree-of-Thoughts and self-reflection to refine plans.

## Dynamic Re-planning



## Execution & Experience

**Effective execution is powered by dynamic tool use and multi-tiered memory**

### Autonomous Tool Use

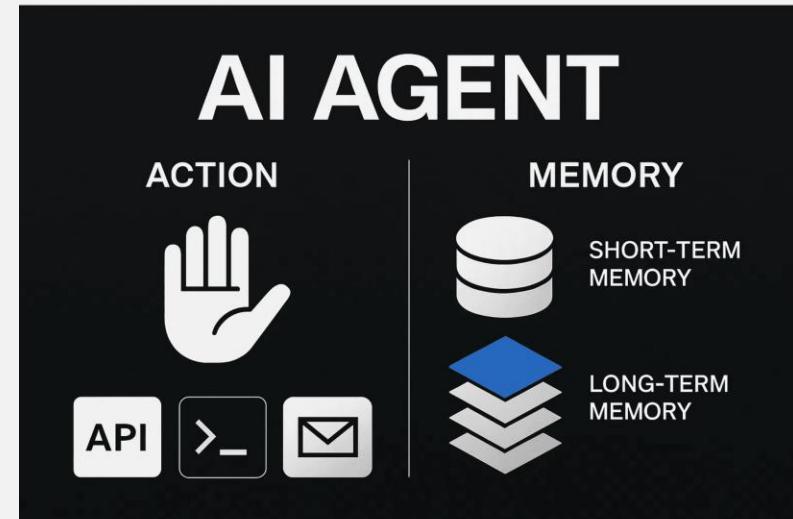
Dynamically selects and configures APIs, interpreters, and actuators.

### Multi-Tiered Memory

STM for context; LTM (vector DBs) for persistent knowledge.

### Memory Consolidation

Summarizes past experiences to improve retrieval efficiency



# Agents range from simple reflex systems to sophisticated learning entities

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01

## Simple Reflex

Direct mapping from perception to action (If-Then logic).

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02

## Model-Based

Keeps an internal state to track unseen aspects of the world.

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03

## Goal-Oriented

Evaluates actions by proximity to desired outcomes.

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04

## Utility-Based

Optimizes a utility function rather than a binary goal.

05

## Learning Agents

Improves over time via feedback and interaction.

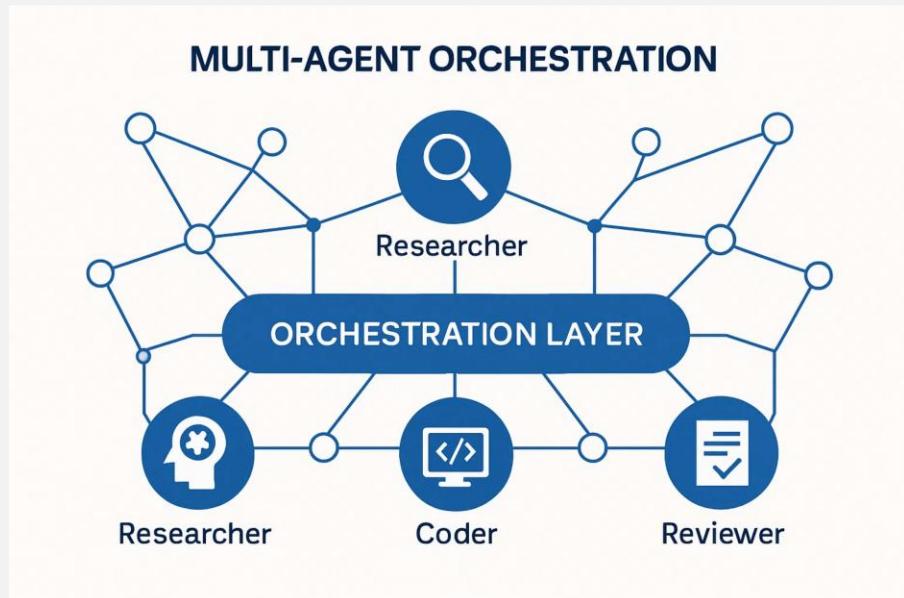
# Collaborative multi-agent systems outperform monolithic models

## Specialization

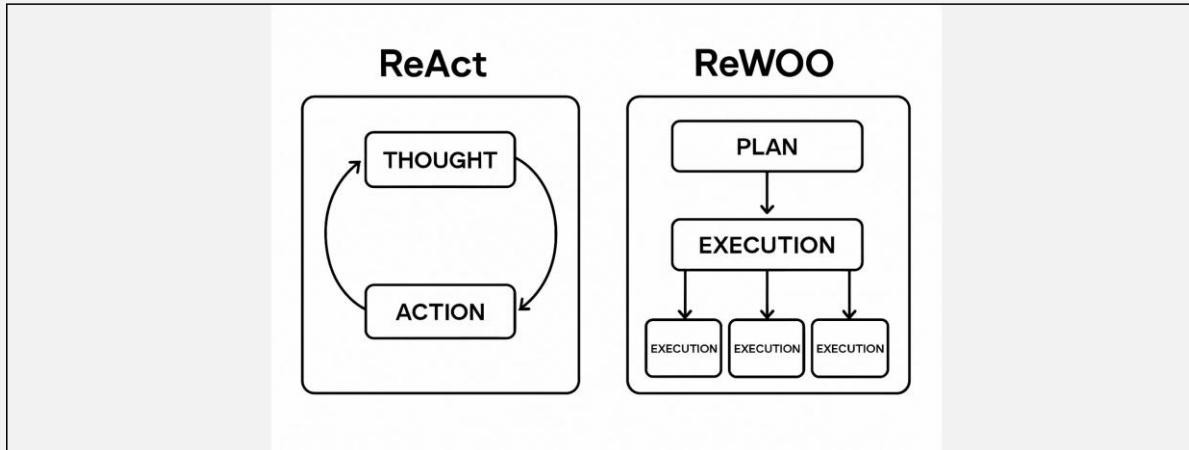
Assigning distinct roles (Researcher, Coder, Reviewer) to reduce cognitive load on single LLM calls.

## Orchestration

The management layer that handles task delegation, state management, and conflict resolution



# Strategic reasoning patterns determine agent efficiency and reliability



## ReAct (Reason + Act)

Interleaves reasoning traces and task-specific actions. **Best for:** Unpredictable environments requiring high adaptability and real-time observation.

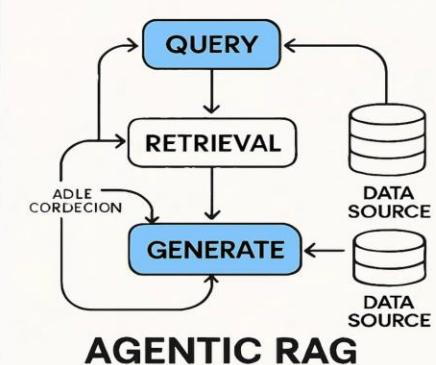
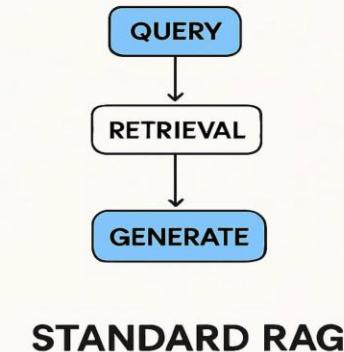
## ReWOO (Reason Without Observation)

Decouples reasoning from tool execution by planning all steps upfront. **Best for:** Reducing latency, token costs, and enabling parallel tool execution.

## Evolutionary Shift

**Agentic RAG  
transforms static  
retrieval into  
dynamic discovery**

## STANDARD RAG vs AGENTIC RAG



### Standard RAG

A linear, static process: Retrieve → Augment → Generate. Limited by initial query quality.

### Agentic RAG

An iterative loop where the agent critiques results, refines queries, and verifies across multiple sources.

### Key Benefit

Significant reduction in hallucinations through autonomous self-correction and reasoning.

# Trustworthy autonomy requires rigorous governance and evaluation frameworks

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## Ethics

- Implementing "Human-in-the-loop" for high-stakes decisions.
- Proactive bias mitigation and algorithmic transparency.

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## Governance

- Defining clear action boundaries and permission scopes.
- Immutable audit trails for every autonomous decision.

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## Evaluation

- Measuring Success Rate and Tool Call Precision.
- Rigorous monitoring for safety and policy violations.

# Modern frameworks bridge the gap between theory and production



## n8n

A low-code powerhouse for integrating agents into existing enterprise workflows via 400+ native integrations.

## CrewAI

A code-centric framework designed for role-playing and collaborative multi-agent orchestration.

### Selection Criteria

Use **n8n** for workflow-heavy tasks; use **CrewAI** for complex, autonomous reasoning tasks.



# The future of work is a collaborative partnership

We have moved from simple content generation to autonomous, goal-oriented systems. The goal is not to replace humans, but to augment our capabilities and handle the complexity of modern workflows.

## Strategic Next Steps

### 01. Start Small

Identify low-risk, high-frequency tasks for initial agentic automation.

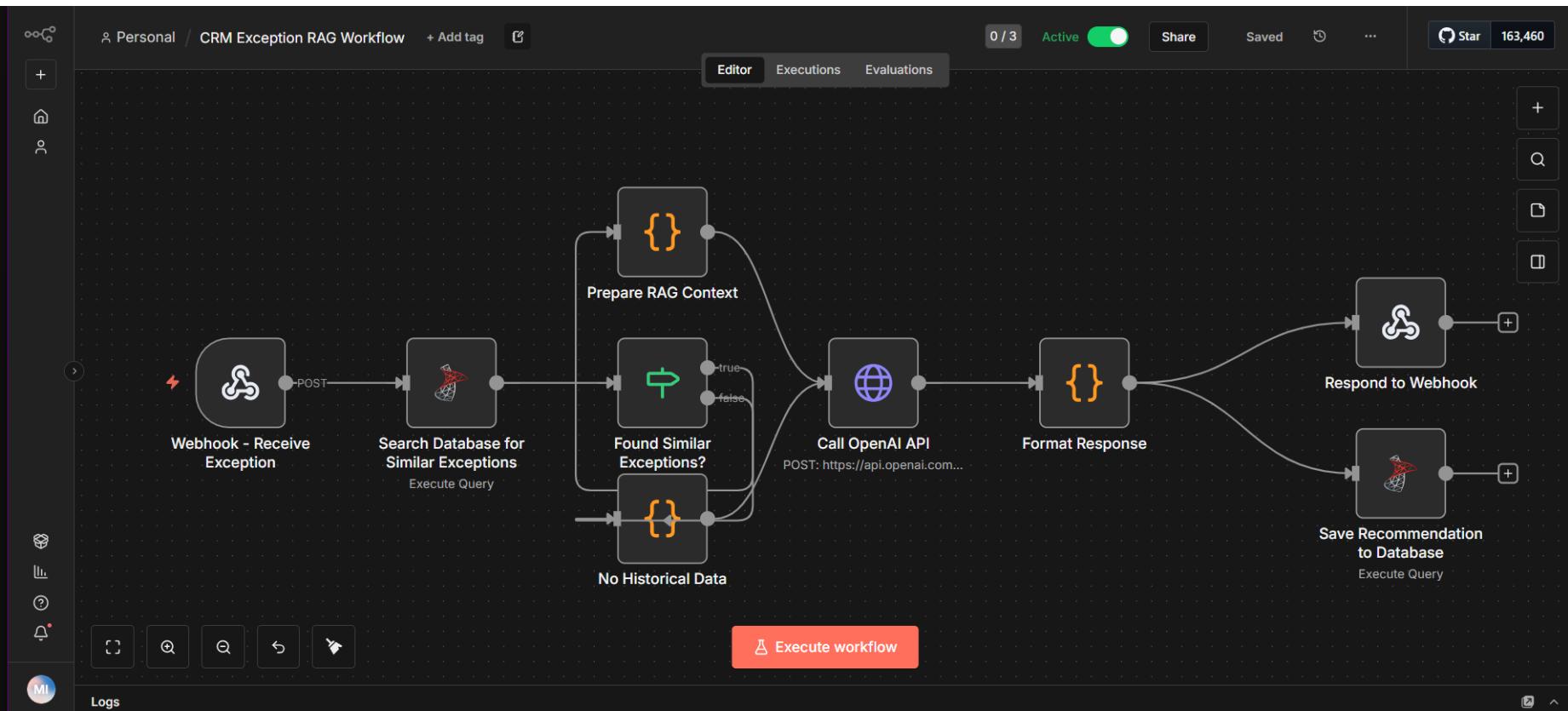
### 02. Define Boundaries

Establish clear action scopes and human-in-the-loop checkpoints.

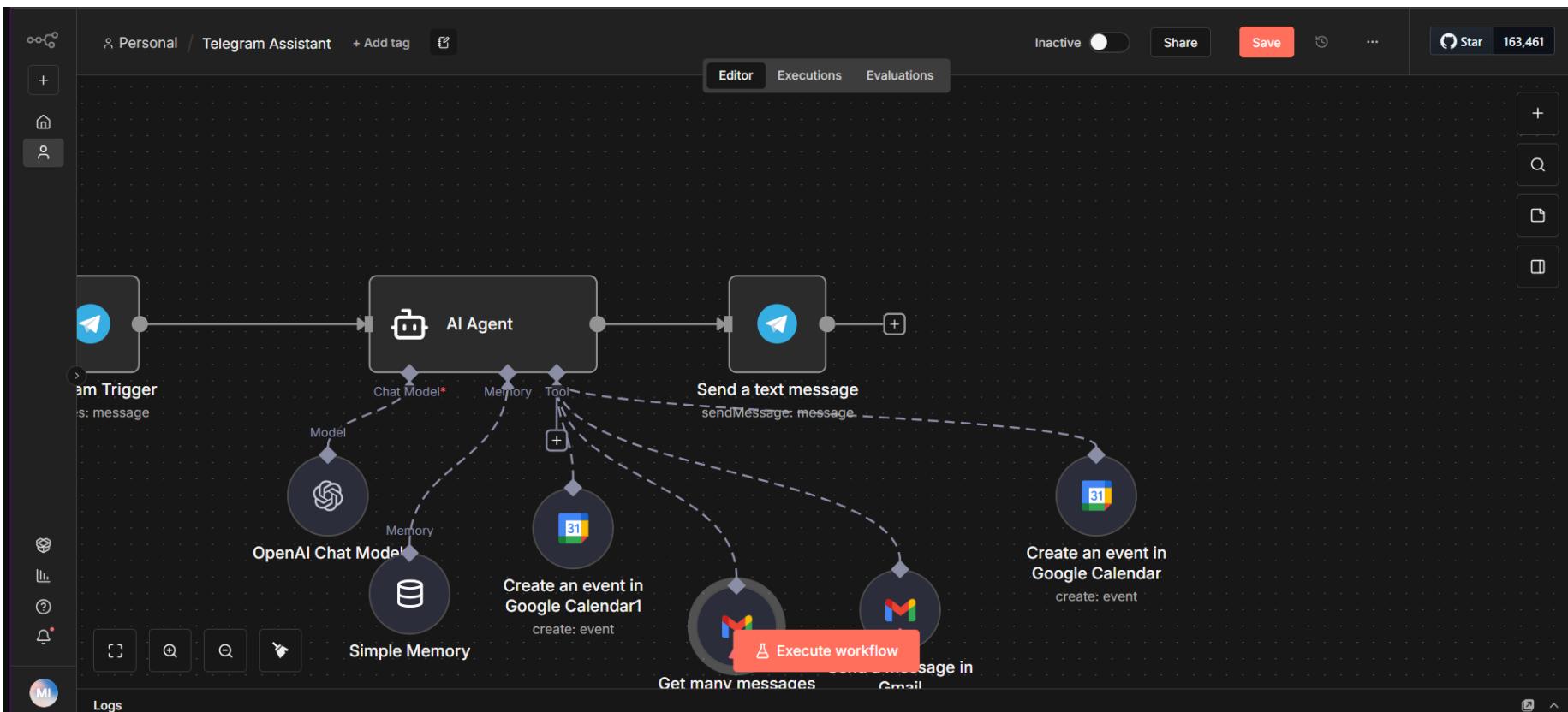
### 03. Focus on Value

Prioritize use cases that deliver measurable efficiency and reliability gains.

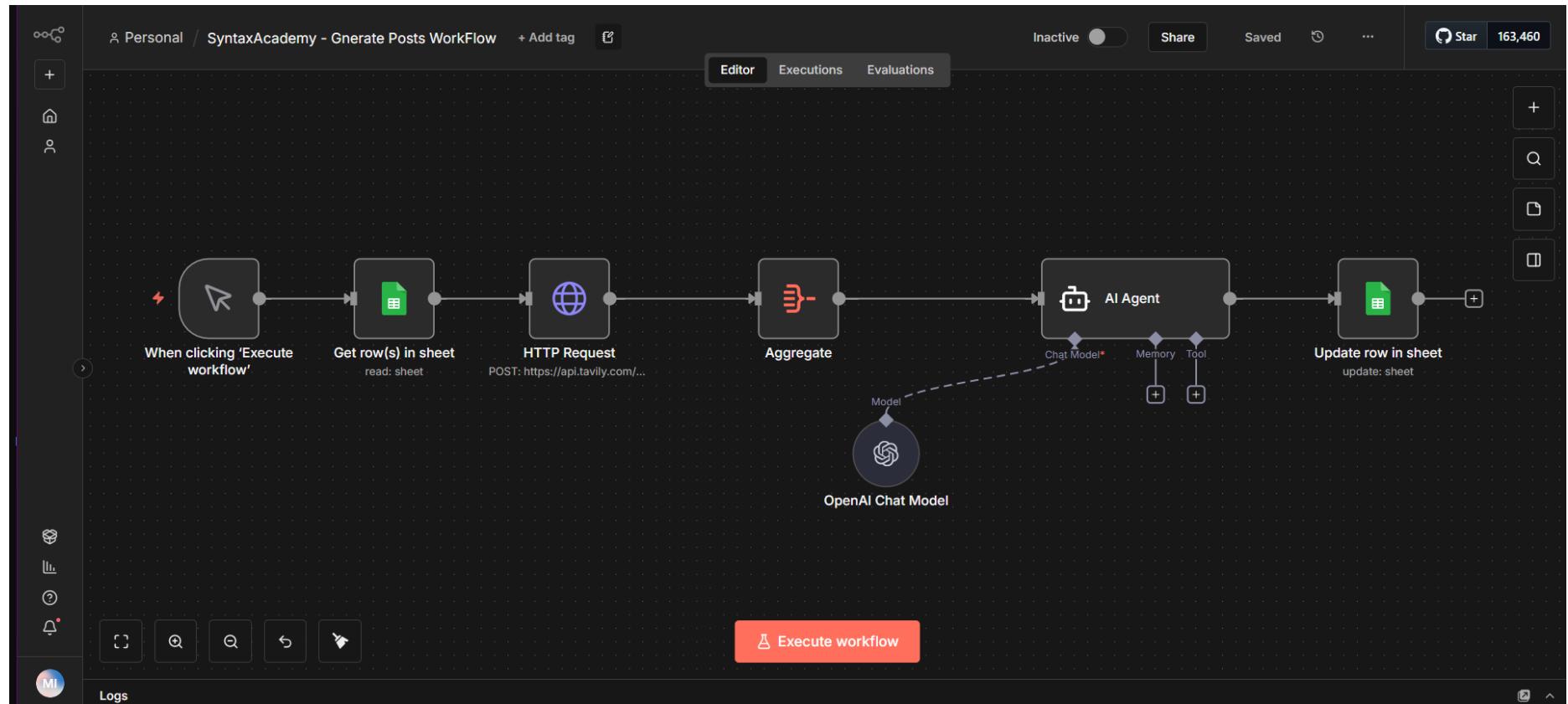
# CRM Exception RAG Workflow – n8n



# Telegram Assistant – n8n



# SyntaxAcademy - Generate Posts Workflow – n8n



# AI Agent Crew AI

Rankyx

## AI-Powered Procurement Workflow

