**AI\_ Ask questions about any data source**

(using the n8n workflow retriever)

Overview

1. **Manual Trigger**:  
   The workflow starts when you manually trigger it by clicking “Execute Workflow.” This is handled by the **When clicking "Execute Workflow"** node.
2. **Example Prompt**:  
   A preset prompt is defined using a **Set** node. This prompt represents a question—here, it asks:

“What notes can you find for Jay Gatsby and what is his email address?”  
This prompt can be adjusted to query different information.

1. **Retrieval QA Chain**:  
   The workflow uses a **Retrieval QA Chain** node. This node is designed to perform a retrieval-based Q&A, where it queries data from another workflow (a subworkflow) using the **Workflow Retriever** node. The retrieved data is then processed by a Q&A chain to extract an answer based on the input prompt.
2. **Workflow Retriever**:  
   The **Workflow Retriever** node is configured with a specific subworkflow ID (replace this with your actual workflow ID). It fetches the results from that subworkflow, making them available for the QA chain. This allows you to modularize your workflows by offloading data retrieval to a separate, dedicated subworkflow.
3. **Language Model Integration**:  
   The **OpenAI Chat Model** node is used as the language model to process the prompt and the retrieved data. It leverages the context provided by the QA chain to generate a coherent answer.
4. **Contextual Q&A**:  
   With all the components connected, the workflow takes the preset question, retrieves relevant data from the subworkflow via the Workflow Retriever, processes this data through the Retrieval QA Chain, and finally, generates a text-based answer using the OpenAI Chat Model.
5. **Sticky Notes for Guidance**:  
   Several sticky notes are included in the workflow to provide guidance on setup:
   * One sticky note explains that this is a Q&A system working on data returned from a subworkflow.
   * Another sticky note reminds you to replace the "Workflow ID" in the configuration with the actual ID of your subworkflow.

How It Works

* **Trigger & Prompt Initialization**:  
  When you click “Execute Workflow,” the workflow initiates with the Example Prompt node, which sets the question input.
* **Data Retrieval**:  
  The Workflow Retriever node then calls the specified subworkflow, and its output is used by the Retrieval QA Chain node.
* **Answer Generation**:  
  The OpenAI Chat Model processes the prompt along with the retrieved data, generating an answer based on the context provided.
* **Modularity & Reusability**:  
  The design is modular. The subworkflow can be updated or replaced without changing the main workflow, making the system flexible and reusable.

Usage

* **Customization**:  
  Modify the Example Prompt to ask different questions or adjust the question details.  
  Update the Workflow Retriever with the actual subworkflow ID that returns the data relevant to your query.
* **Scalability**:  
  This pattern allows you to scale your data retrieval logic separately from your language model processing, facilitating more complex and modular designs.
* **Application**:  
  Use this setup for any scenario where you need to answer questions based on data stored in a subworkflow. It’s particularly useful for dynamically retrieving and processing data using a retrieval-based approach.