**Query n8n Credentials with AI SQL Agent.txt**

**Workflow Overview: OpenAI Assistant Workflow: Upload File, Create an Assistant, Chat with it!**

This workflow streamlines the process of uploading a file from Google Drive, creating an AI assistant with that file as its knowledge source, and then interacting with the assistant via a chat interface. The assistant leverages OpenAI's API to answer user queries using the content from the uploaded file.

**Key Workflow Components**

1. **File Upload and Assistant Creation**
   * **Get File (Google Drive):** Downloads a file from Google Drive using a specified file ID. In this example, the file is a music festival document.
   * **Upload File to OpenAI:** The downloaded file is uploaded to OpenAI using their file upload API endpoint. This step registers the file with OpenAI for use in creating an assistant.
   * **Create New Assistant:** An OpenAI Assistant is created using the uploaded file as its source of knowledge. The assistant is configured with a name, description, system instructions, and a set of tools for knowledge retrieval.
2. **User Interaction**
   * **Chat Trigger:** A chat interface is provided via an n8n chat trigger. Users can interact with the assistant by sending chat messages.
   * **OpenAI Assistant (Chat):** Users' chat messages are processed by the assistant, allowing it to generate responses based on the uploaded file and the provided configuration.
3. **Workflow Coordination and Data Mapping**
   * **Map Workflows & Credentials:** A mapping node extracts and consolidates workflow and credential information, which is stored in a local SQLite database for reference.
   * **Execute Workflow Trigger:** This node is used to start a subworkflow when needed.
   * **Sticky Notes:** Multiple sticky note nodes provide internal documentation and setup instructions for users, ensuring that the workflow is correctly configured (e.g., setting up Google Drive and OpenAI credentials).

**Data Flow Summary**

1. **File Acquisition and Upload:**
   * The file is fetched from Google Drive.
   * The file is uploaded to OpenAI, and the returned file identifier is used to create a new assistant.
2. **Assistant Creation:**
   * The "Create new Assistant" node registers a new assistant in OpenAI using the uploaded file.
   * The assistant's configuration includes a name, description, and instructions tailored to the intended use-case (e.g., answering queries about a music festival).
3. **User Chat Interaction:**
   * The chat trigger node enables users to send messages.
   * The OpenAI Assistant node processes these messages and responds accordingly.
4. **Credential Mapping:**
   * The "Map Workflows & Credentials" node extracts credential information from the workflow's nodes.
   * This information is stored in a local SQLite database via the "Save to Database" node.
   * A separate agent node (Workflow Credentials Helper Agent) allows querying this database via an AI interface.
5. **Response and Chat Coordination:**
   * The assistant's responses and credential mappings ensure that users get accurate and context-aware answers based on the uploaded file.

**Customization and Setup**

* **Google Drive Configuration:**
  + Update the file ID and credentials in the "Get File" node to fetch the desired document.
* **OpenAI Credentials and Assistant Settings:**
  + Ensure that the OpenAI credentials are correctly set up.
  + Customize the assistant's name, description, and instructions to align with your intended application.
* **Workflow Credentials Mapping:**
  + The "Map Workflows & Credentials" and "Save to Database" nodes allow for dynamic storage and querying of workflow credentials.
  + This can be useful for scaling and managing multiple workflows.

**Conclusion**

This workflow simplifies the process of creating an AI assistant that uses file content from Google Drive. By automating file upload, assistant creation, and chat interaction, it provides a seamless experience for users who want to query documents through a conversational interface. The inclusion of workflow credential mapping further enhances the management and scalability of your AI-assisted processes.