**Build a Tax Code Assistant with Qdrant, Mistral.**

ai and OpenAI

What does this do?

* **Manual Kickoff:**  
  You start the workflow by clicking “Test workflow,” which gets everything rolling.
* **Download the Tax Code Bundle:**  
  The workflow fetches a zip file containing Texas tax code PDFs directly from the government website.
* **Unzip and Read PDFs:**  
  It extracts the PDFs from the zip file and then reads their contents to pull out all the text.
* **Smart Text Extraction:**  
  Instead of taking the entire PDF as one big block, it uses some clever text processing (with regex magic) to split the document into clear chapters and sections. This helps in organizing the legal text so that each part is easy to find later.
* **Map Out the Sections:**  
  After splitting, the workflow maps each section into a neat list, tagging it with details like the chapter, section number, and title.
* **Chunking & Embedding:**  
  To prepare the text for AI processing, the workflow breaks it into smaller chunks (imagine slicing a big pizza into bite-size pieces) and then creates vector embeddings using Mistral Cloud. These embeddings turn text into numbers that capture its meaning.
* **Store in a Vector Database:**  
  The embeddings are stored in a Qdrant vector store (specifically in a collection called “texas\_tax\_codes”). This makes it super easy for later searches—like a digital filing system for legal text.
* **Build Your Tax Code Chatbot:**  
  An AI Agent is set up to act as a legal assistant. It’s programmed with a helpful system message so that when you ask a question about Texas tax codes, it not only gives you an answer but also tells you where in the tax code (chapter and section) the information was found.
* **User Interaction Tools:**  
  There are smart tools (named “Ask Tool” and “Search Tool”) that the AI uses. Depending on your query, the workflow either answers a general question about tax law or searches for a specific section. A switch node decides which tool to use.
* **Conversational Memory:**  
  Memory buffer nodes keep track of the conversation context, so the AI assistant can have a coherent chat with you—even if the discussion goes on for a while.