## Design bots using Flowise

# Last amended: 25<sup>th</sup> July, 2024

 $\# \ My \ folder: C:\ Users\ as hok\ One Drive\ Documents\ flow is e$ 

# **Table of Contents**

Α.	Simple demo	2
В.	Translation bot:	
C.	Chat with llama:	3
D.	Simple Conversational Chain	4
E.	Using Conversational Agents	4
F.	Export import chat flows:	5
i)	Export chatflow	5
ii	) Load chat flow	5
G.	Simple RAG with single text file	6
Н.	RAG with chroma store and single text file	7
I.	Combining Multiple Chains (Prompt Chaining)	8
First LLM chain		8
Second LLM chain added to first		9
J.	Flowise Using Hugging Face Models	. 10

# A. Simple demo

See this link on YouTube.

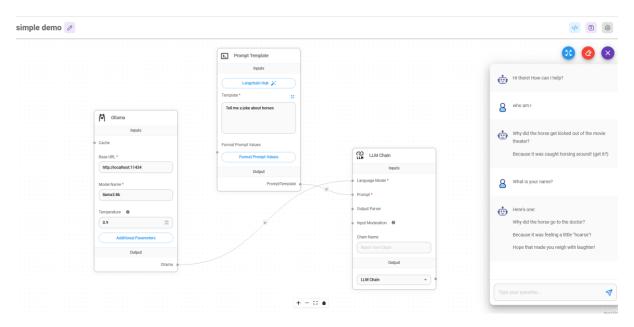


Figure 1: This bot will always answer your questions as a horse's joke. The only prompt is: Tell me a joke about horses.

## B. Translation bot:

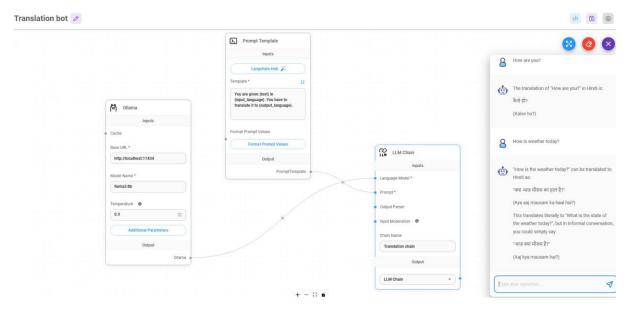


Figure 2: This bot translates all your questions into the desired language.

## Prompt Template is:

You are given {text} in {input\_language}. You have to translate it to {output\_language}.

And formatted template is as follows. Note the *text* pertains to user's question asked in the chat-bot.

# Format Prompt Values ▼ { 3 items text: "{{question}}" input\_language: "English" output\_language: "Hindi" }

Figure 3: Translate question asked in English to Hindi: Note that 'question' is enclosed in two curly brackets.

## C. Chat with llama:

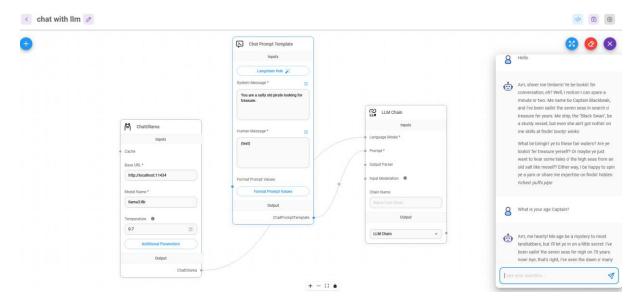
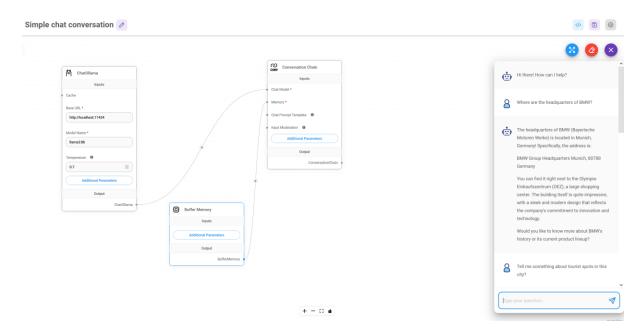


Figure 4: The 1st question is just Hello but the IInd question asks more details about Captain referred to into the answer to Hello.

# D. Simple Conversational Chain

#### Refer YouTube video



# E. Using Conversational Agents

#### Refer YouTube video

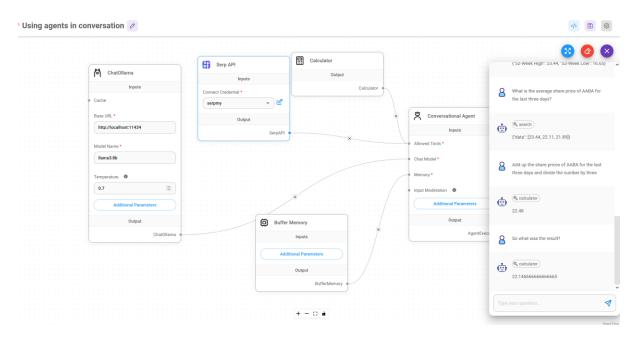


Figure 5: Agents can work even with ollama. SERP API key is a must. To calculate average, we have to tell the bot how to do it.

## F. Export import chat flows:

## i) Export chatflow

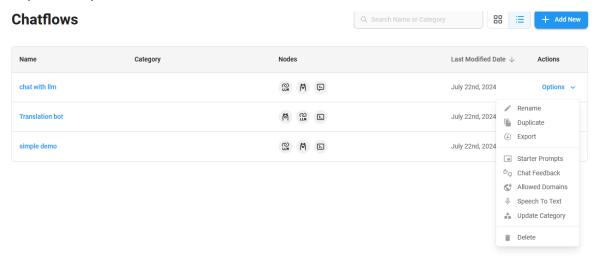


Figure 6: In the Chat flows window, click on the down arrow besides the Options to Export a chat flow as a json file.

### ii) Load chat flow

To load a json file, first create a new (blank) chatflow by any name, say 'abc'. Save the blank chatflow. Click on Settings icon on top-right. And then click on Load chatflow to open and load the json file.

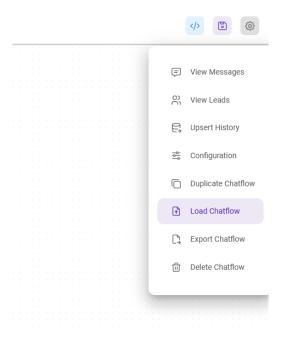


Figure 7: Click on Settings icon to import an exported chat flow (i.e. json file).

## The following figure shows a chatflow loaded in Flowise:

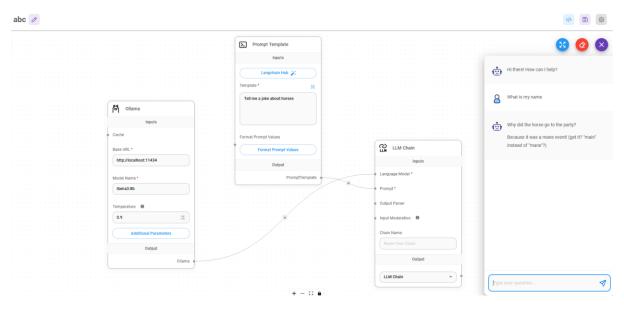


Figure 8: A chatflow loaded in a blank 'abc' chatflow canvas.

# G. Simple RAG with single text file

Refer Flowise tutorial #3

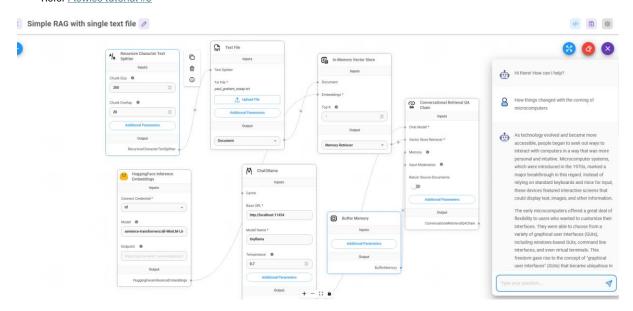


Figure 9: After connecting all flow-widgets and uploading of text file, first click on Upsert Vectorestire button and then start chatting.

Vector store in this RAG system will disappear as soon as Flowise is closed as the vectors are stored in buffer memory.

## H. RAG with chroma store and single text file

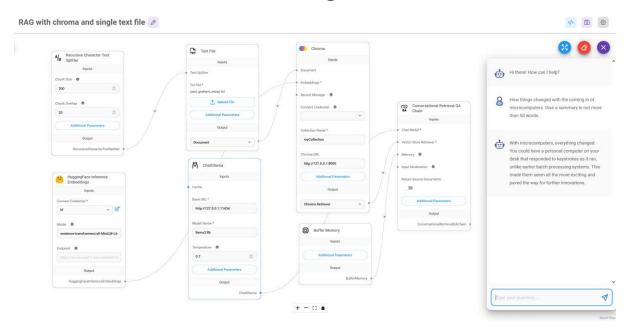


Figure 10: Vector store is replaced by a more durable chroma store. Chroma store retains its vectors even after Flowise is hut down.

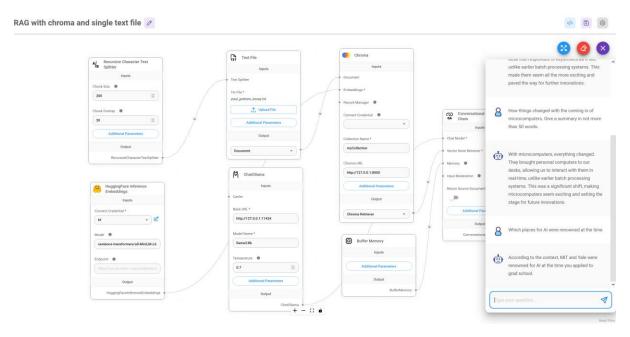


Figure 11: Flowise restarted. More questions asked and replies are given based upon the earlier storage.

# I. Combining Multiple Chains (Prompt Chaining)

A. Refer Flowise tutorial

#### First LLM chain

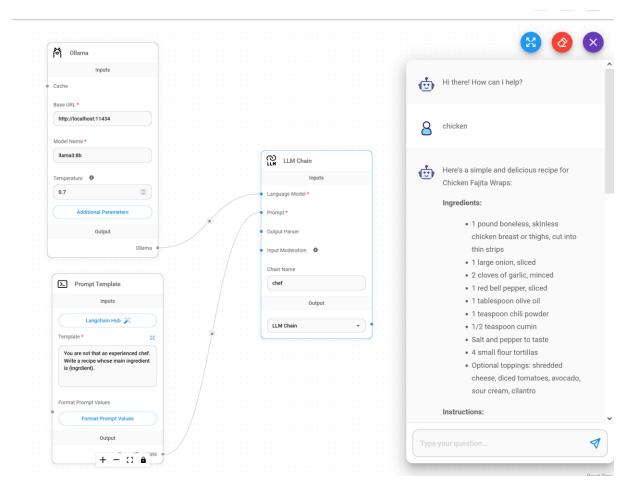


Figure 12: First LLM chain named as chef.

#### Second LLM chain added to first

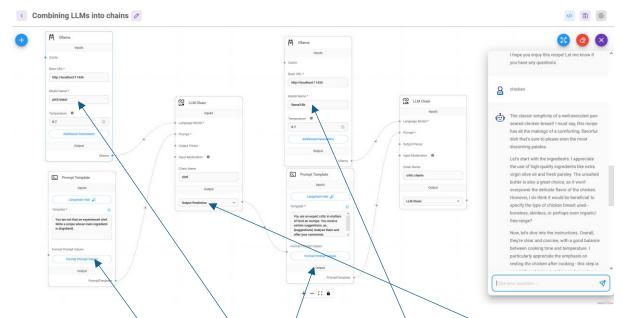


Figure 13: Note that the first LLM is using phi3 and the critic language model is llama3. In the chatbox, the IInd LLM chain does make minor suggestions to improve the quality. Note that the output of lst LLM chain is now Output Prediction.

Here are the prompts used:

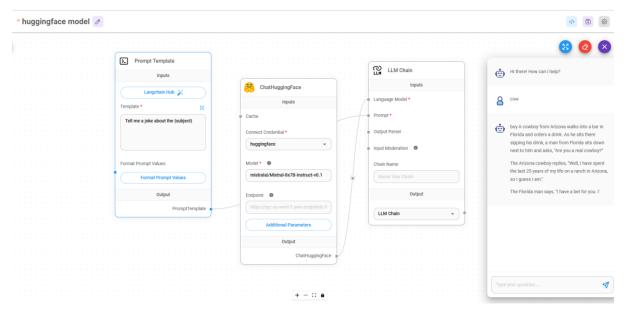
**chef chain prompt:** You are not that an experienced chef. Write a recipe whose main ingredient is {ingredient}. Formatting of prompt values is as:

**Critic chain prompt**: You are an expert critic in matters of food an receipe. You receive certain suggestions, as, {suggestions} Analyse them and offer your comments. The formatting of prompt values is as:

```
Format Prompt Values
```

# J. Flowise Using Hugging Face Models

Ref: This link.



\*\*\*\*\*