

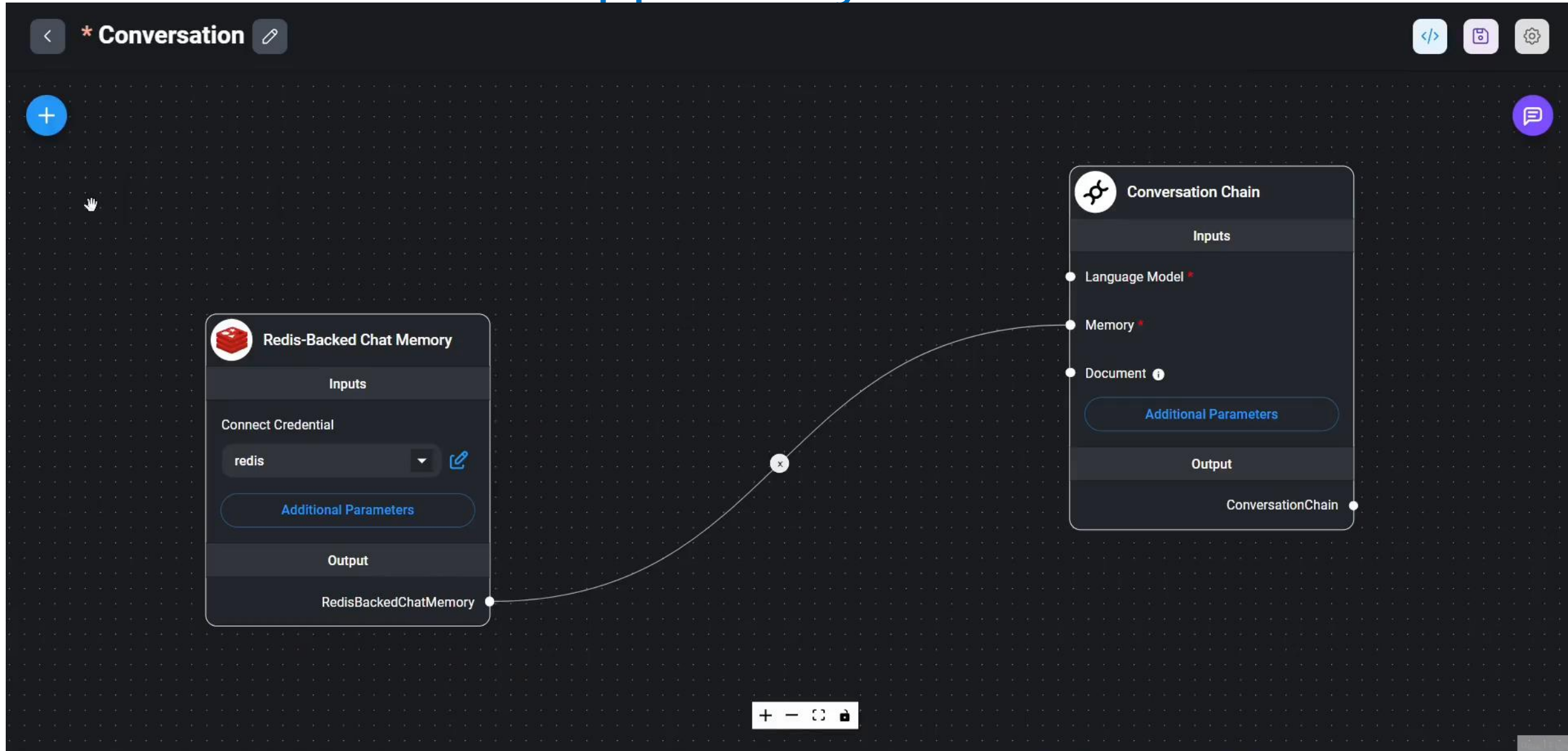
# 8. 노코딩 시애플 빌드

How to  
**Build an App**  
Without Coding

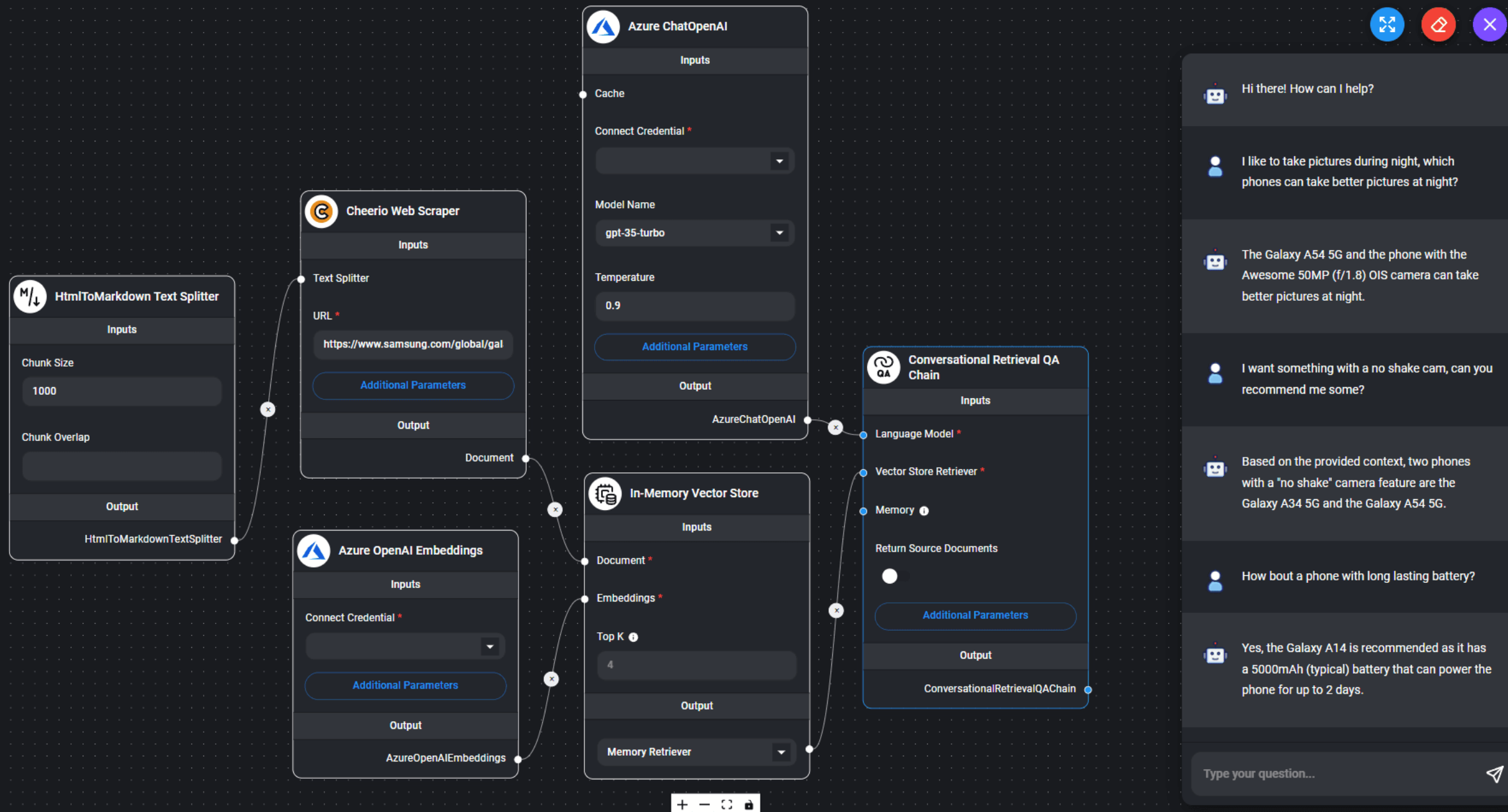
---




# Flowise – Build LLM Apps Easily



# 유스케이스- 제품과 관련된 모든 질문에 답변하는 제품 카탈로그 챗봇



# 유스케이스- 주어진 제품 사양에서 제품 설명 생성

 ChatOpenAI

Inputs

Cache

Connect Credential \*

Model Name

gpt-3.5-turbo


Temperature

0.9

Additional Parameters

Output

ChatOpenAI

 Prompt Template

Inputs

Langchain Hub

Template \*


You are a product description writer. Using the following specification, write a product description in 50 words.

Format Prompt Values

Format Prompt Values

Output

PromptTemplate

 LLM Chain

Inputs

Language Model \*

Prompt \*

Output Parser

Input Moderation ⓘ

Chain Name

Name Your Chain

Output

LLM Chain

Hi there! How can I help?

6.9" edge Quad HD+ Dynamic AMOLED 2X (3088x1440)

496 ppi

Infinity-O Display

Introducing our cutting-edge 6.9" edge Quad HD+ Dynamic AMOLED 2X display with an impressive 3088x1440 resolution. With a pixel density of 496 ppi, this Infinity-O display delivers stunning visuals and an immersive viewing experience. Experience the future of display technology with our top-of-the-line product.

- 12.0 MP + 12.0 MP Rear Camera Resolution (Multiple)
- F1.8 , F2.2 Rear Camera F Number (Multiple)
- Rear Camera Auto Focus
- Rear Camera OIS
- Digital Zoom up to 10x
- 10.0 MP Front Camera Resolution
- UHD 4K (3840 x 2160) @60fps Video Recording Resolution

Type your question...

# 유스케이스- 자연어를 사용하여 SQL 데이터베이스 쿼리하기



Hi there! How can I help?

how many rows are there

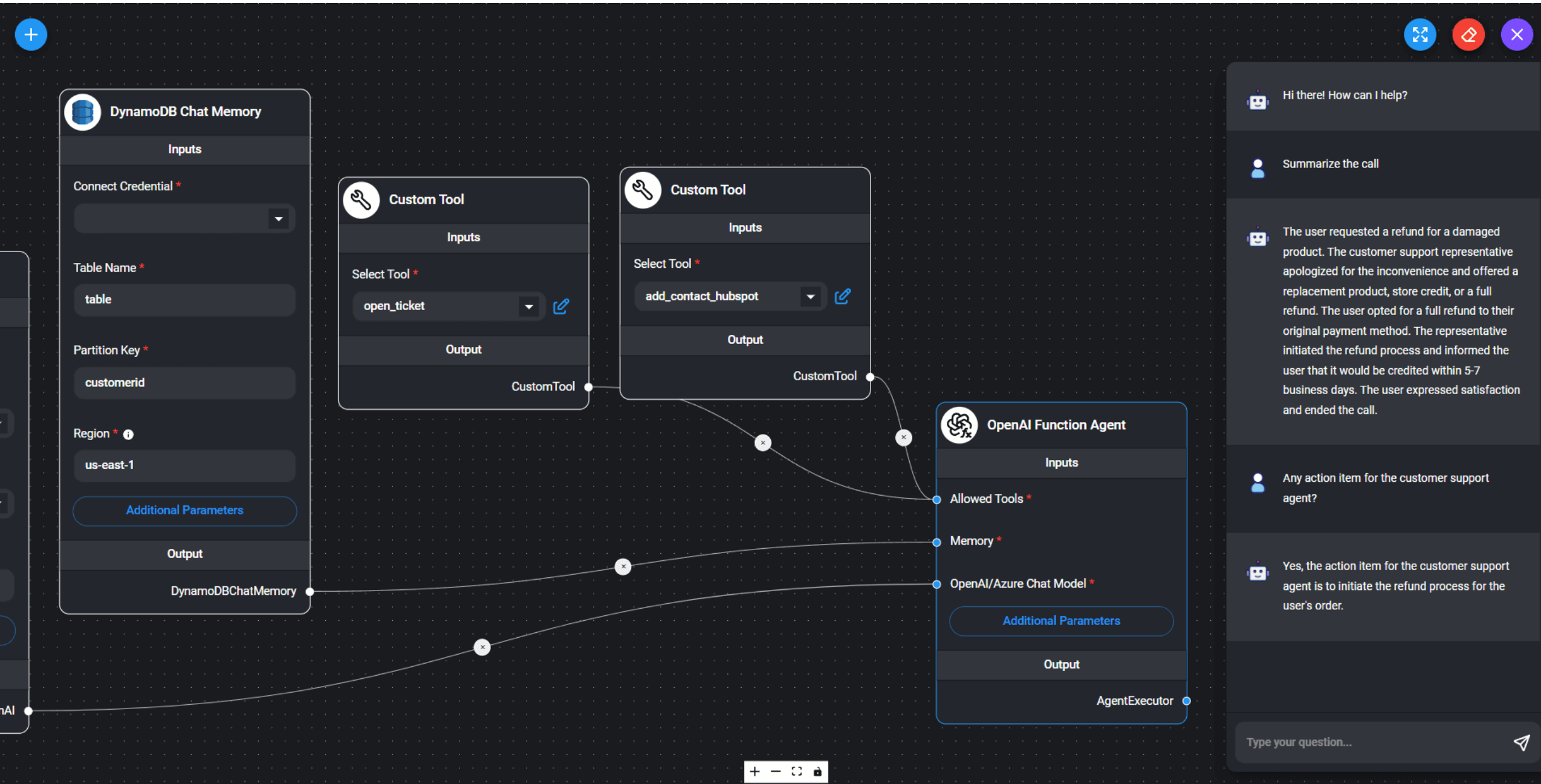
There are a total of 5 rows.

what is the address of steven

Steven's address is 2, 120 Jefferson St.

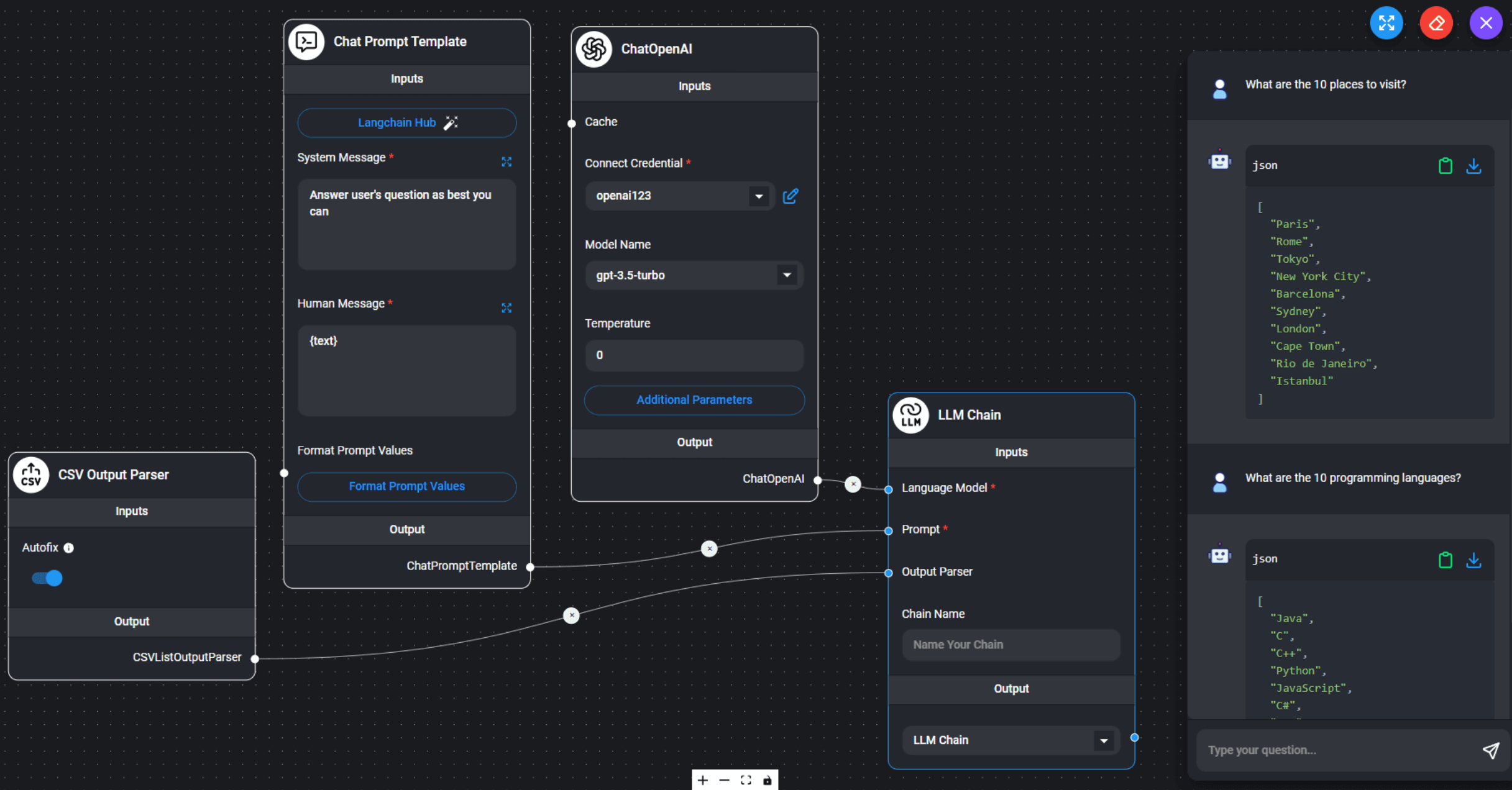
Type your question...

# 유스케이스- 고객 지원 티켓에서 후속 작업 요약 및 만들기



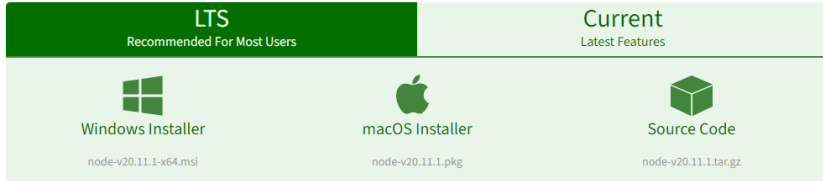


# 유스케이스- 다운스트림 작업에 사용할 구조화된 데이터 생성 또는 추출



# Flowise 설치

## NodeJS 설치



## ⚡ Quick Start

### 1. Flowise 설치

```
npm install -g flowise
```

### 2. Flowise 시작

```
npx flowise start
```

### 3. <http://localhost:3000> 접속

## Developers (선택사항)

### 1. Yarn 설치

```
npm i -g yarn
```

### 2. Repository 복제

```
git clone
```

```
https://github.com/FlowiseAI/Flowise.git
```

### 3. 모듈 설치

```
cd Flowise
```

```
yarn install
```

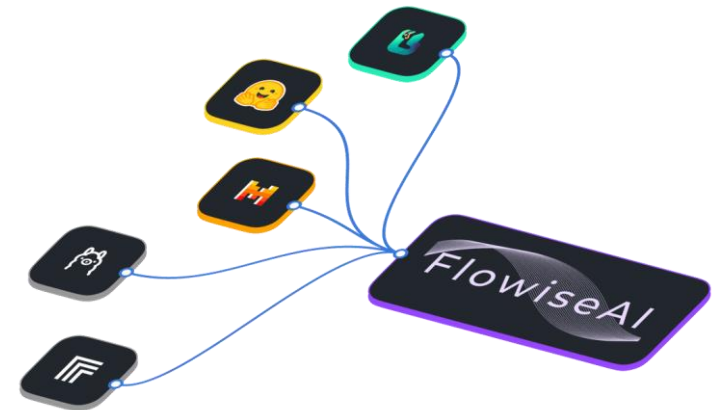
### 4. 빌드

```
yarn build
```

### 5. Flowise 시작

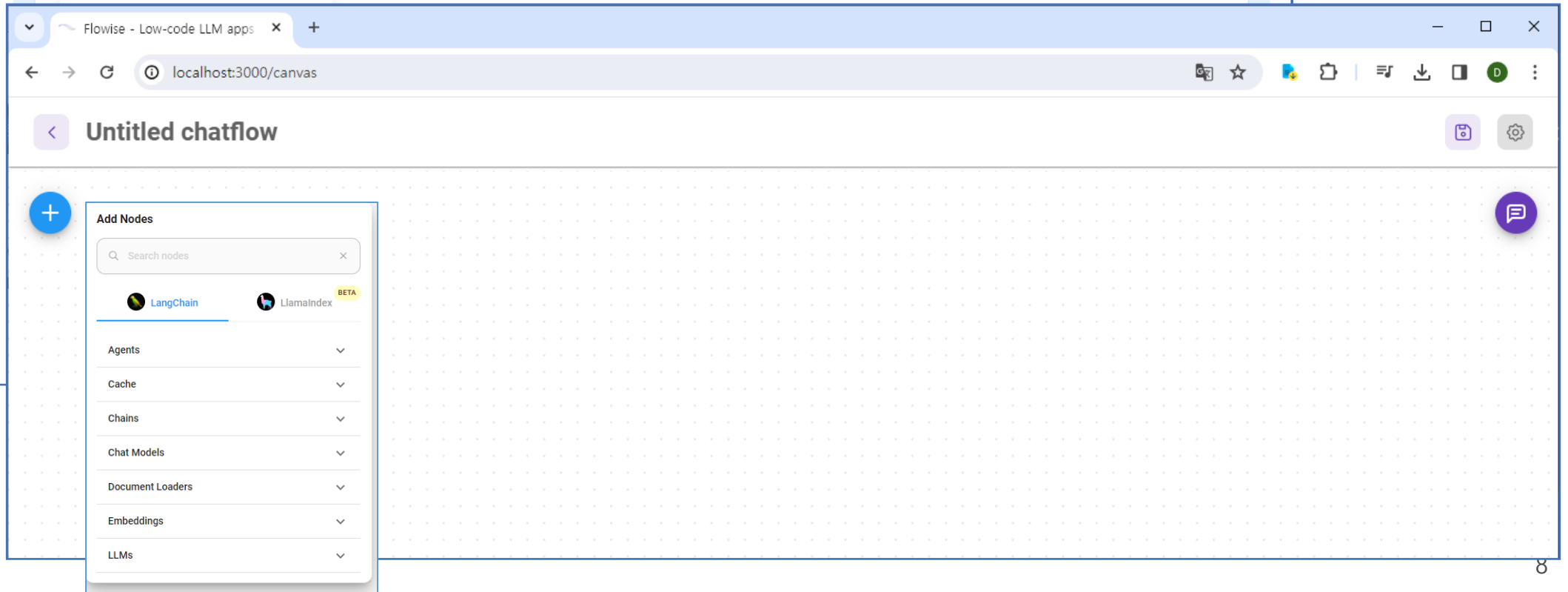
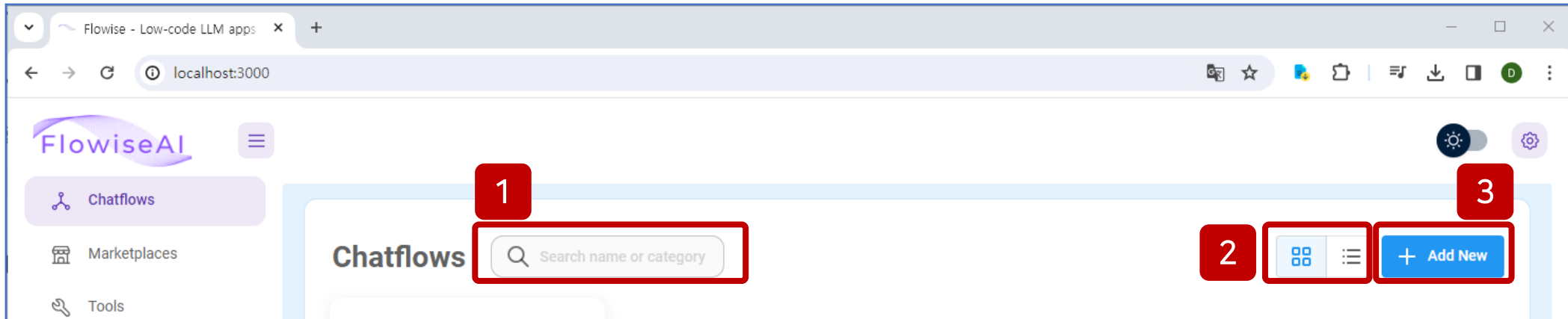
```
yarn start
```

### 6. <http://localhost:3000> 접속





# Chatflows



# Marketplace

The image displays two screenshots of the FlowiseAI interface, showing the 'Marketplace' and 'Chatflows' sections.

**Top Screenshot (Marketplace):**

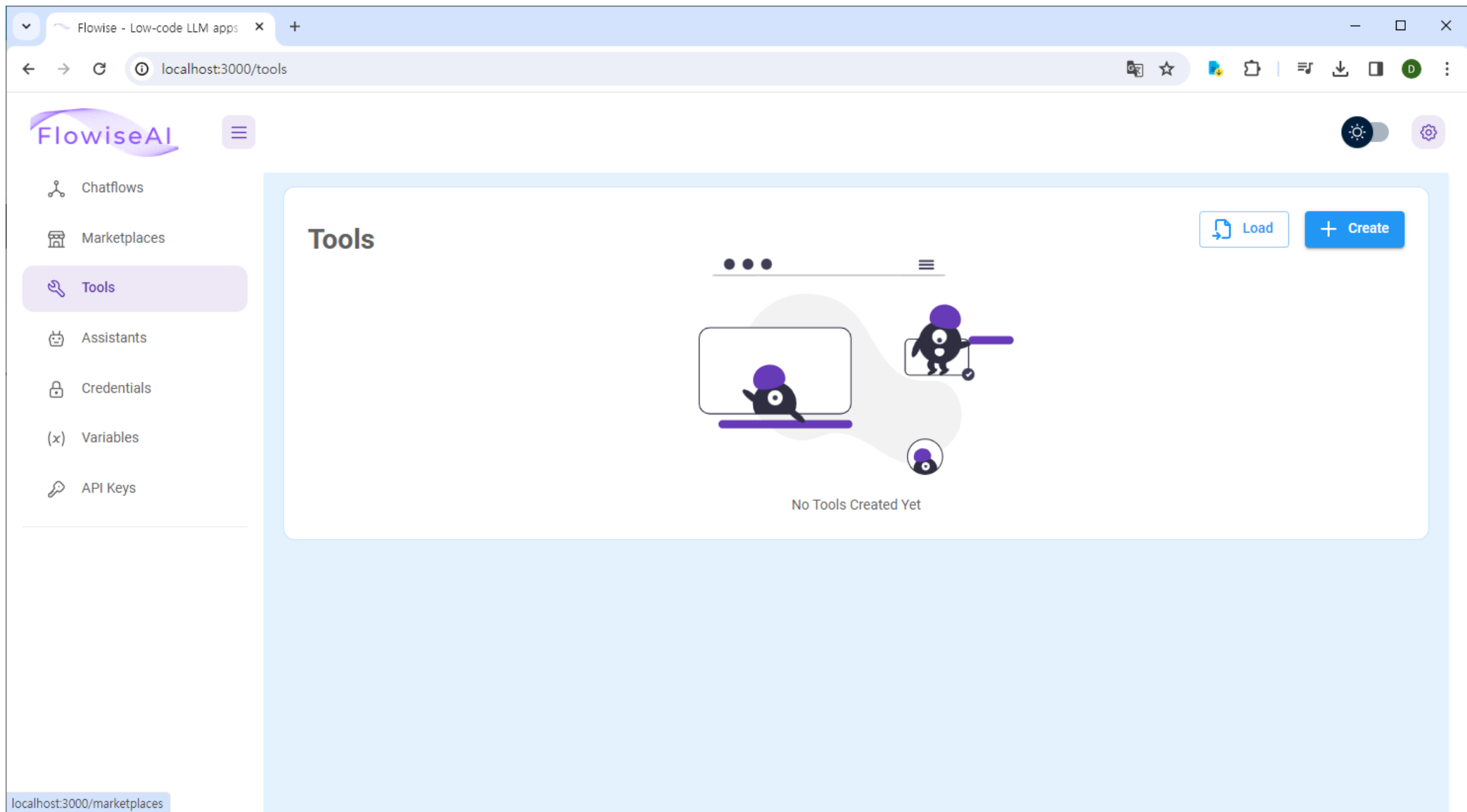
- Browser tab: Flowise - Low-code LLM apps
- URL: localhost:3000/marketplaces
- FlowiseAI logo and sidebar menu (Marketplaces is selected).
- Search bar: Search name or description or node name
- Buttons: Show Filters, Use Template
- Templates displayed:
  - Add Hubspot Contact**: Add new contact to Hubspot
  - Advanced Structured Output Parser** (NEW): Return response as a JSON structure as specified by a Zod
  - Antonym**: Output antonym of given user input using few-shot prompt template built with examples
  - API Agent**: Given API docs, agent automatically decides call, generating url request from conversation

**Bottom Screenshot (Chatflows):**

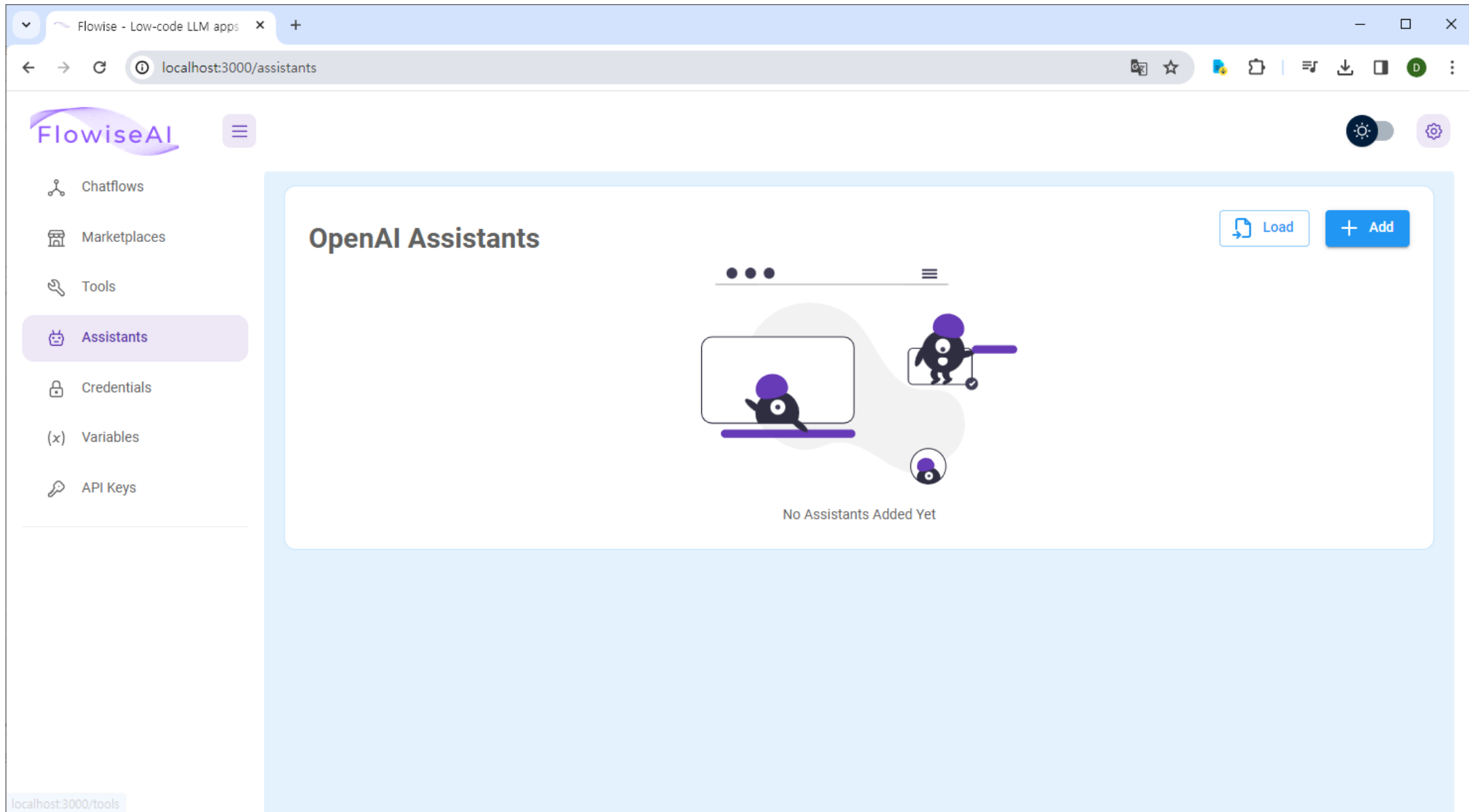
- Browser tab: Flowise - Low-code LLM apps
- URL: localhost:3000
- FlowiseAI logo and sidebar menu (Chatflows is selected).
- Search bar: Search name or category
- Buttons: Add New
- Table of Chatflows:

Name	Category	Nodes	Last Modified Date	Actions
Demo		M/L, , QA, , + 1 More	March 10th, 2024	Options

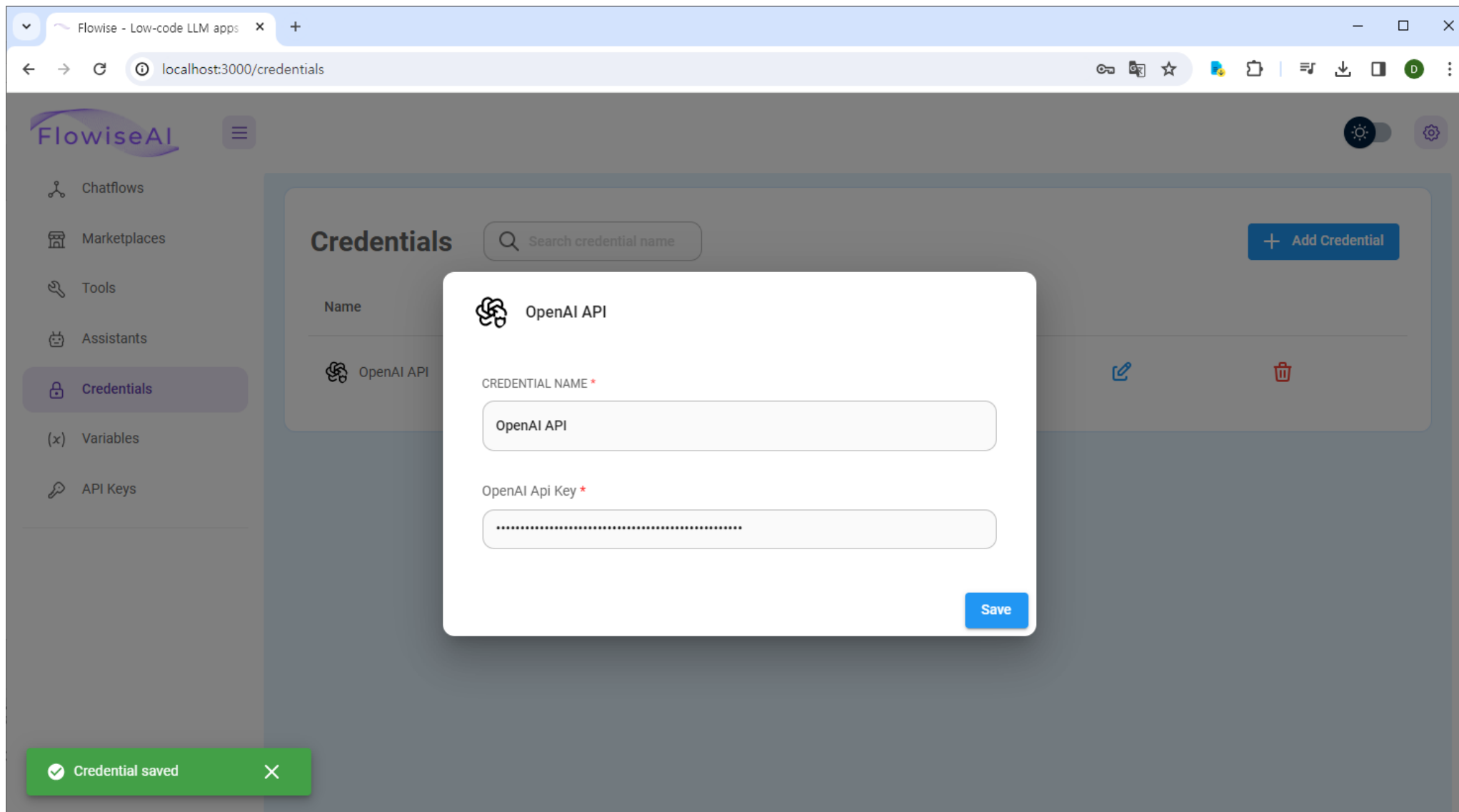
# Tools



# Assistants



# Credentials



# 실습 - Food Recipe App

<https://platform.openai.com/api-keys>

Flowise - Low-code LLM apps

localhost:3000/canvas/5a24d695-a2e1-4a4b-aba7-f149aa1bc0d9

## FoodRecipe

**3** Prompt Template  
Schema to represent a basic prompt for an LLM

**2** OpenAI  
Wrapper around OpenAI large language models

**1** LLM Chain  
Chain to series against

**OpenAI API**

CREDENTIAL NAME \*

OepnAI

OpenAI Api Key \*

Add

Inputs

Langchain Hub

Template \*

당신은 숙련된 요리사입니다.  
주 재료 {ingredient} 를 사용하여 맛있는 레시피를 만들어 주세요.

Format Prompt Values

ingredient : {{question}}

Select Variable

question  
User's question from chatbox

chat\_history  
Past conversation history between user and AI

OpenAI

Cache

Connect Credential \*

OpenAI

Model Name

gpt-3.5-turbo-instruct

Temperature

0.7

Additional Parameters

Output

OpenAI

Language Model \*

Prompt \*

Output Parser

Input Moderation

Chain Name

chef

LLM Chain

감자

감자는 다양한 방식으로 요리할 수 있기 때문에 여러 가지 레시피를 소개해 드리겠습니다.

1. 감자조림

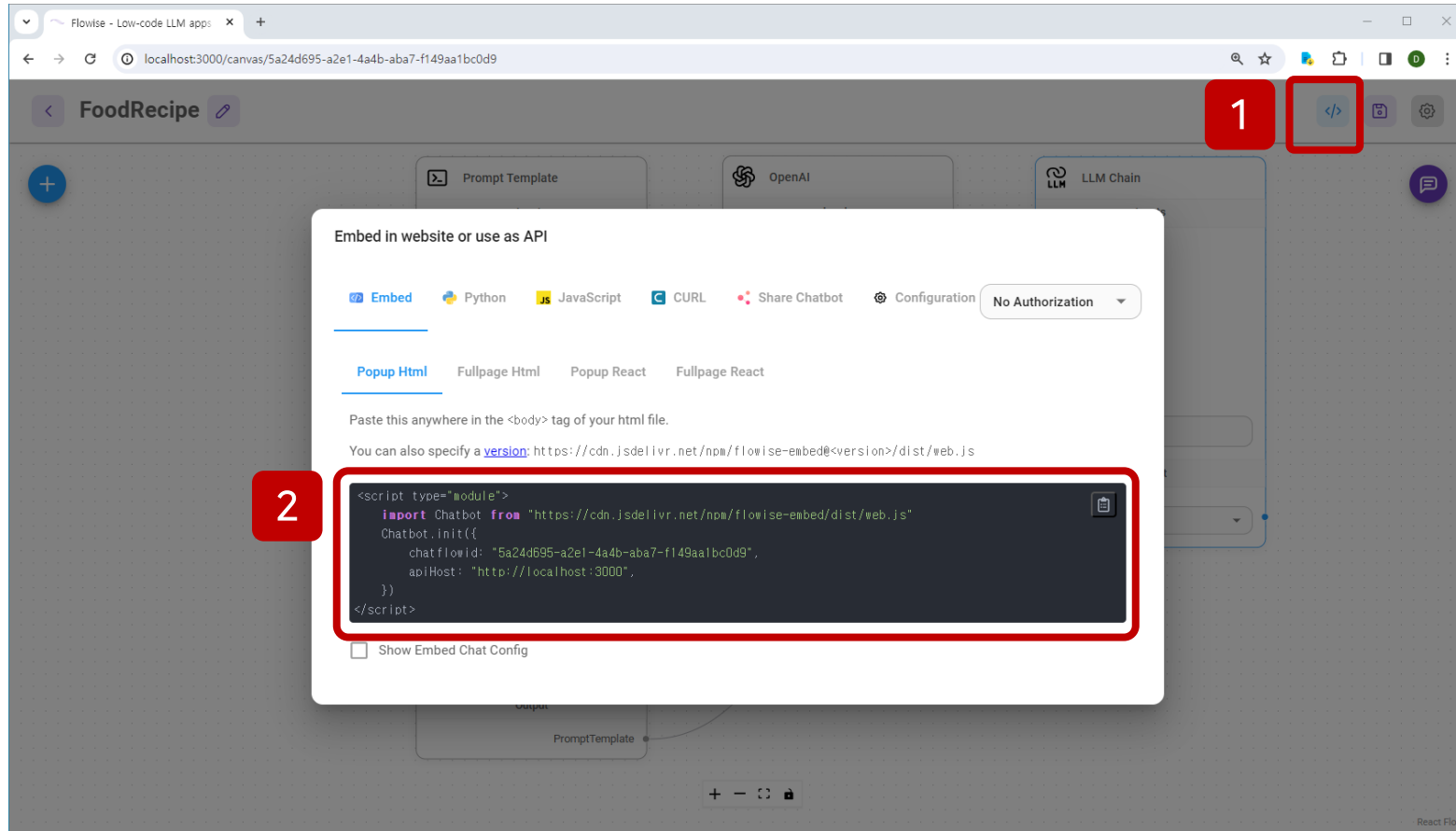
- 감자를 깨끗이 씻어 껍질을 벗긴 후 2cm 두께로 썬다.
- 양파 1/2개와 당근 1개는 비슷한 크기로 썰어 준다.
- 냄비에 참기름을 두르고 양파와 당근을 넣어 볶은 후 감자를 넣고 함께 볶는다.
- 물 1컵, 간장 2큰술, 설탕 1큰술을 넣어 감자가 잠길 정도로 물을 부어 뚜껑을 닫고 약한 불에서 10분 정도 끓인다

Type your question...

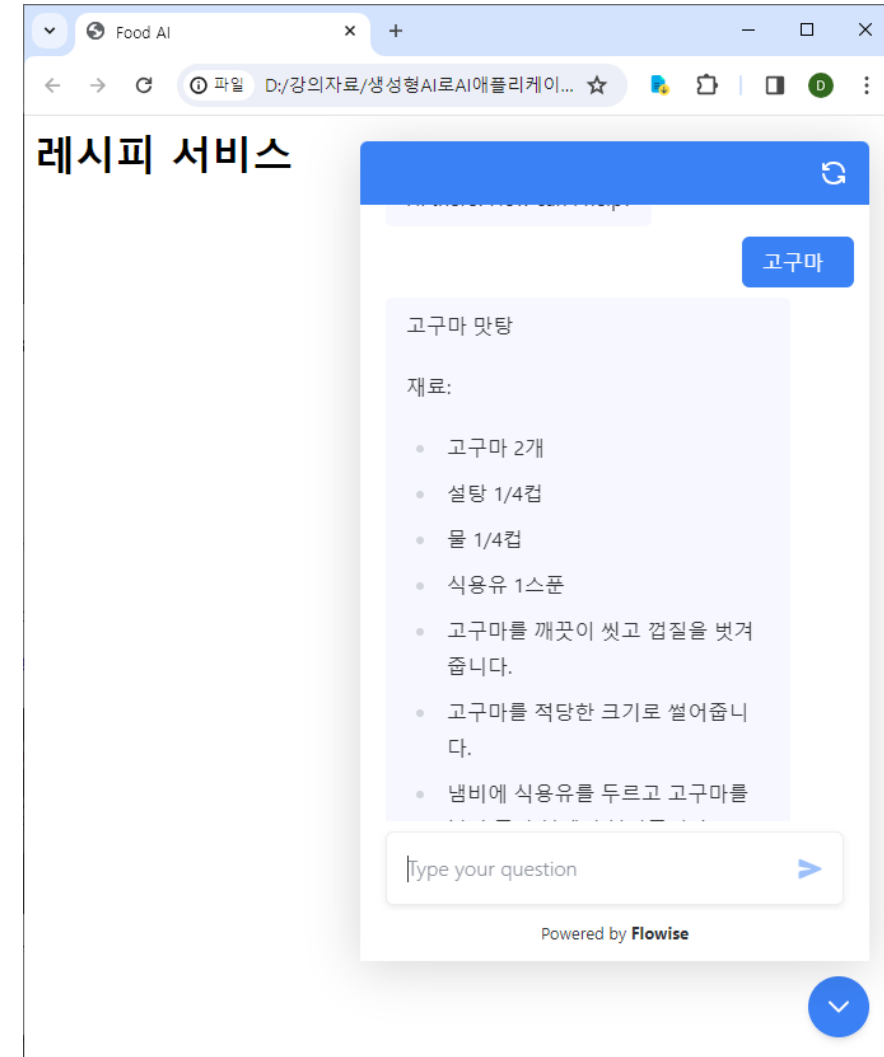
React Flow



# 실습 - Food Recipe App



index.html



# 실습 - Food Recipe Critic App

The screenshot displays the Flowise Low-code LLM app interface for a project named "FoodRecipeCriticApp". The workflow is composed of several interconnected components:

- Prompt Template (Left):** Contains a template for generating a recipe based on ingredients: "당신은 숙련된 요리사입니다. 주 재료 (ingredient) 를 사용하여 맛있는 레시피를 만들어 주세요."
- OpenAI:** Configured with "Cache", "Connect Credential" (OpenAI), "Model Name" (gpt-3.5-turbo-instruct), and "Temperature" (0.9).
- LLM Chain (Left):** Configured with "Language Model" (OpenAI), "Output Parser", "Input Moderation", and "Chain Name" (chef). The output is labeled "Output Prediction" and is highlighted with a red box containing the number "1".
- Prompt Template (Middle):** Contains a template for generating a review: "You are a harsh and rude food critic. Write a review about the following recipe in korean: {recipe}"
- ChatOpenAI:** Configured with "Cache", "Connect Credential" (OpenAI), "Model Name" (gpt-3.5-turbo-1106), and "Temperature" (0.9). The output is labeled "Output" and is highlighted with a red box containing the number "2".
- LLM Chain (Right):** Configured with "Language Model" (OpenAI) and "Chain Name" (chef). The output is labeled "Output Prediction" and is highlighted with a red box containing the number "3".

Two "Format Prompt Values" popups are visible:

- Format Prompt Values (Left):** Shows a JSON object: 

```
{ 1 item recipe: {{llmChain_0.data.instance}}
```
- Format Prompt Values (Middle):** Shows a JSON object: 

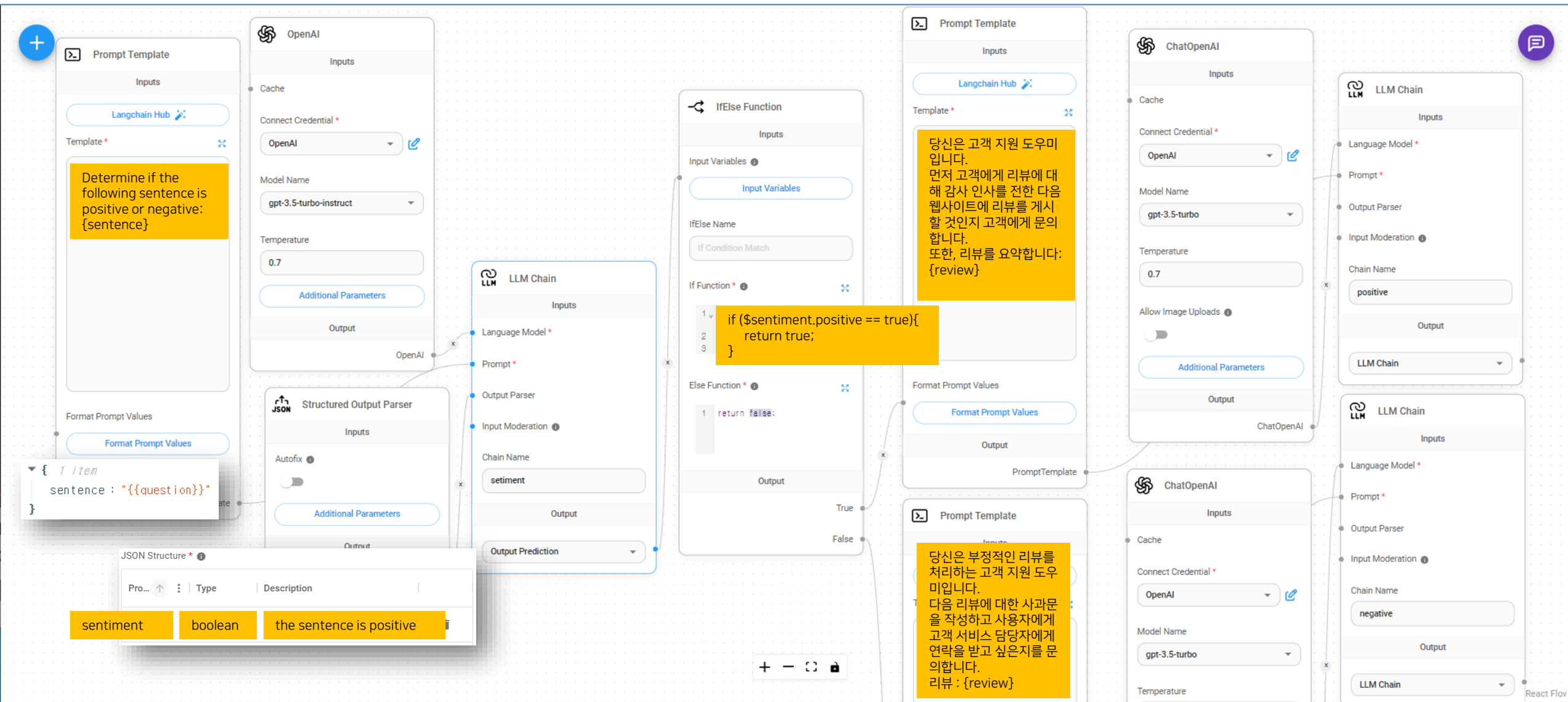
```
{ 1 item recipe: {{llmChain_0.data.instance}}
```

A "Select Variable" popup is also visible, showing variables: "question" (User's question from chatbox), "chat\_history" (Past conversation history between user and AI), and "chef" (Output Prediction from LLM Chain).


On the right side, a chat interface shows a conversation with a user (고구마) and an AI assistant (고구마). The AI assistant provides a detailed review of a recipe, including ingredients and cooking instructions.

The bottom of the interface features a "Type your question..." input field and a "Send" button.


# 실습 - Review AI App




# 실습 - Review AI App




제품의 가성비가 좋은 거 같아요.



고객님, 안녕하세요! 리뷰를 남겨 주셔서 감사드립니다. 고객님의 소중한 의견을 전달해주셔서 감사합니다. 제품의 가성비가 좋다고 말씀해주셔서 저희도 기쁘게 생각합니다. 웹사이트에 리뷰를 게시해도 괜찮을까요? 게시를 원하시면 언제든지 말씀해주세요. 감사합니다!



배송 제품에 스크래치가 있어요.



고객님,  
저희 제품을 구매해 주셔서 감사합니다. 그러나 제품이 스크래치가 있어서 심려를 끼쳐드려 죄송합니다. 제품이 완벽하지 않아서 정말 죄송합니다.  
  
고객 서비스 담당자가 귀하의 문제를 즉시 해결하도록 도와드릴 수 있습니다. 귀하의 문제를 빠르게 해결해 드릴 수 있도록 도와드릴 수 있도록, 고객 서비스 담당자에게 연락을 받고 싶으신

```
C:\Windows\system32\cmd.exe
2024-03-10 19:58:08 [INFO]: POST /api/v1/internal-prediction/7f981a57-89d2-4e33-99bf-e382023913b5

****OUTPUT PREDICTION****

{ json: { positive: true } }
2024-03-10 19:58:09 [INFO]: [server]: Chatflow 7f981a57-89d2-4e33-99bf-e382023913b5 added into ChatflowPool

****FINAL RESULT****

고객님, 안녕하세요! 리뷰를 남겨 주셔서 감사드립니다. 고객님의 소중한 의견을 전달해주셔서 감사합니다. 제품의 가성비가 좋다고 말씀해주셔서 저희도 기쁘게 생각합니다. 웹사이트에 리뷰를 게시해도 괜찮을까요? 게시를 원하시면 언제든지 말씀해주세요. 감사합니다!
2024-03-10 19:58:38 [INFO]: POST /api/v1/internal-prediction/7f981a57-89d2-4e33-99bf-e382023913b5

****OUTPUT PREDICTION****

{ json: { positive: false } }
2024-03-10 19:58:38 [INFO]: [server]: Chatflow 7f981a57-89d2-4e33-99bf-e382023913b5 added into ChatflowPool

****FINAL RESULT****

고객님,
저희 제품을 구매해 주셔서 감사합니다. 그러나 제품이 스크래치가 있어서 심려를 끼쳐드려 죄송합니다. 제품이 완벽하지 않아서 정말 죄송합니다.
고객 서비스 담당자가 귀하의 문제를 즉시 해결하도록 도와드릴 수 있습니다. 귀하의 문제를 빠르게 해결해 드릴 수 있도록 도와드릴 수 있도록, 고객 서비스 담당자에게 연락을 받고 싶으신가요?
다시 한번 사과의 말씀을 전하며, 고객님의 양해를 부탁드립니다.
```

# 실습 - Conversational Chatbot

<https://upstash.com/>

The screenshot shows the Upstash dashboard with the following elements and numbered annotations:

- 1**: Points to the 'Redis' tab in the top navigation bar.
- 2**: Points to the 'Create database' button in the 'Create a Redis Database' section.
- 3**: Points to the 'Name' field, which contains 'ChatHist'.
- 4**: Points to the 'Region' dropdown, which is set to 'N. Virginia, USA (us-east-1)'.
- 5**: Points to the 'Create' button at the bottom of the 'Create Database' modal.
- 6**: Points to the 'REST API' section in the modal, which explains that the REST API enables access to the database.
- 7**: Points to the 'REST API' toggle switch, which is currently turned on.

Below the 'REST API' section, there are environment variables and a cURL command:

```
UPSTASH_REDIS_REST_URL  
UPSTASH_REDIS_REST_TOKEN
```

```
curl "https://us1-equal-tuna-40994.upstash.io/set/foo/bar" \\\n  -H "Authorization: Bearer *****"
```

# 실습 - Conversational Chatbot

Flowise - Low-code LLM apps

localhost:3000/canvas/73a737cf-72d0-4f6d-9ec7-db2ac1ffd679

## \* Conversational Chatbot

**Simple Prompt Moderation**

Inputs

- Chat Model
- Deny List

나쁜 강아지

Error Message

Cannot Process! Input violates content moderation policies.

**Upstash Redis-Backed Chat Memory**

Inputs

- Connect Credential
- Upstash Redis
- Upstash Redis REST URL
- https://us1-equal-tuna-40994.upstash
- Additional Parameters

Output

UpstashRedisBackedChatMemory

**ChatOpenAI**

Inputs

- Cache
- Connect Credential
- OpenAI

Session Id

chat001

Session Timeouts

**Conversation Chain**

Inputs

- Chat Model
- Memory
- Chat Prompt Template
- Input Moderation
- Additional Parameters

Output

ConversationChain

**Buffer Memory**

Inputs

- Memory Key
- chat\_history
- Input Key
- input

**Upstash Redis Memory API**

Refer to [official guide](#) on how to create redis instance and get redis REST Token

CREDENTIAL NAME \*

Upstash Redis

Upstash Redis REST Token \*

Add

내 이름은 대니

반가워요, 대니님! 좋은 하루 보내세요. 어떤 정보가 필요하신가요?

니 이름은?

저는 인공지능 어시스턴트입니다. 제 이름은 따로 없지만, 대니님과 함께 대화를 나누고 도와드리기 위해 여기 있어요. 어떤 것이든 물어보세요!

나쁜 강아지

Cannot Process! Input violates content

내 이름은 oo

React Flow



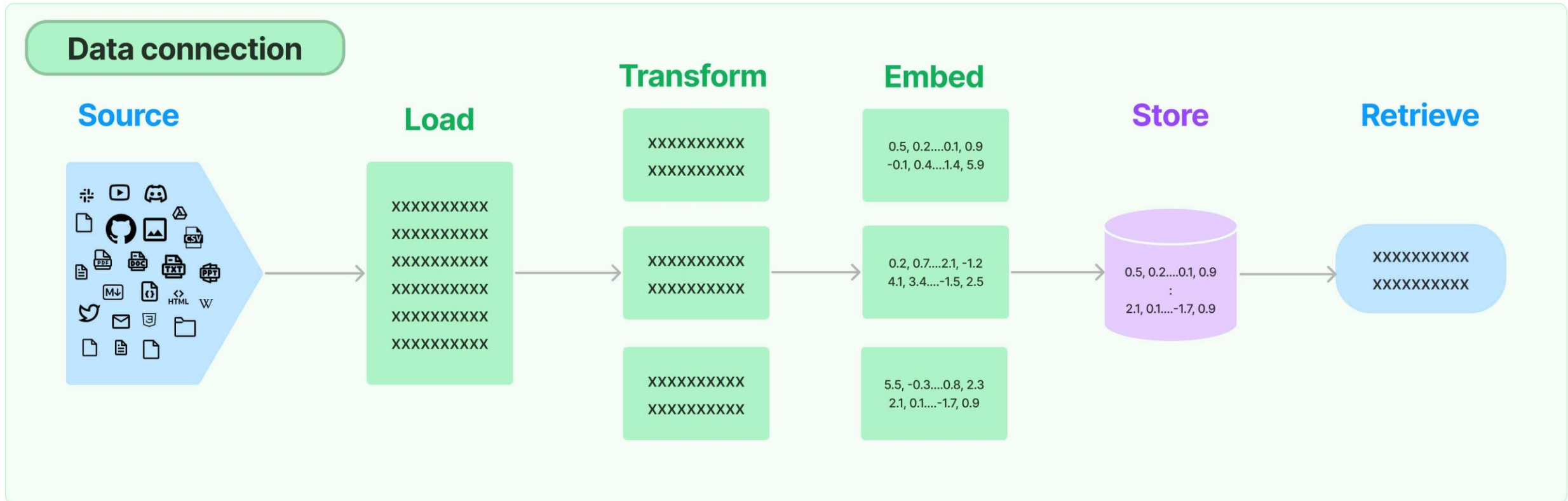
# 실습 - Conversational Chatbot

The screenshot shows the Upstash ChatHist console interface. The browser address bar displays the URL: `console.upstash.com/redis/baf9e0b4-a2a9-4e2b-89c7-5dd614bac508?tab=data-browser`. The top navigation bar includes the Upstash logo, a 'Personal' dropdown, and tabs for 'Redis', 'Kafka', 'Vector' (marked 'NEW'), and 'QStash'. Below this, the 'ChatHist' header is visible with options for 'Free', 'AWS', 'N. Virginia, USA', and 'us-east-1'. The main navigation menu includes 'Details', 'Usage', 'CLI', 'Data Browser' (selected), 'Backups', and 'Quickstarts' (marked 'NEW').

The 'Data Browser' section shows a search bar, a filter set to 'All Types', and a list of chat sessions. The selected session is 'chat001'. The chat history is displayed in a table with two columns: 'INDEX' and 'CONTENT'.

INDEX	CONTENT
0	<code>{"type":"ai","data":{"content"...</code>
1	<code>{"type":"human","data":{"con...</code>
2	<code>{"type":"ai","data":{"content"...</code>
3	<code>{"type":"human","data":{"con...</code>
4	<code>{"type":"ai","data":{"content"...</code>
5	<code>{"type":"human","data":{"con...</code>

# 실습 - RAG Chatbot



# 실습 - RAG Chatbot

Flowise - Low-code LLM apps

localhost:3000/canvas/f7724231-4aae-4e2a-94b4-db93fef0f5e8

## RAGChatbot

**Recursive Character Text Splitter**

Inputs

Chunk Size: 1000

Chunk Overlap: 50

Additional Parameters

Output: RecursiveCharacterTextSplitter

**Pdf File**

Inputs

Text Splitter

손익계산서.pdf

Upload File

Usage: One document per page

Additional Parameters

Output: Document

**In-Memory Vector Store**

Inputs

Document

Embeddings \*

Top K: 4

Output: Memory Retriever

**OpenAI Embeddings**

Inputs

Connect Credential: OpenAI

Model Name: text-embedding-ada-002

Additional Parameters

**ChatOpenAI**

Inputs

Cache

Connect Credential: OpenAI

Model Name: gpt-3.5-turbo

Temperature: 0.4

Allow Image Uploads

Additional Parameters

Output: ChatOpenAI

**Conversational Retrieval QA Chain**

Inputs

Chat Model \*

Vector Store Retriever \*

Memory

Return Source Documents

Additional Parameters

Output: ConversationalRetrievalQAChain

Upstream Vector Store

- Recursive Character Text Splitter (recursiveCharacterTextSplitter\_0)
- Pdf File (pdfFile\_0)
- OpenAI Embeddings (openAIEmbeddings\_0)
- In-Memory Vector Store (memoryVectorStore\_0)

Show API

Upsert

Hi there! How can I help?

2020년 영업수익이 얼마야?

2020년 영업수익은 실액원으로 23,917입니다.

2023년 당기순이익은?

2023년 당기순이익은 실액원으로 989입니다.

2023년 당기순이익은?

# 실습 - RAG Chatbot

Flowise - Low-code LLM apps

localhost:3000/canvas/6384ca1b-c034-481e-a588-3e3fdbd640e0

## RAGWebChatbot

**Recursive Character Text Splitter**

Inputs

Chunk Size: 1000

Chunk Overlap: 50

Additional Parameters

Output: RecursiveCharacterTextSplitter

**Cheerio Web Scraper**

Inputs

Text Splitter

URL: <https://docs.flowiseai.com/configuration/deployment/render>

Manage Links

Additional Parameters

Output: <https://docs.flowiseai.com/sitemap.xml>

**In-Memory Vector Store**

Inputs

Document

Embeddings

Output: 4

Memory Retriever

**OpenAI Embeddings**

Inputs

Connect Credential: OpenAI

Model Name: text-embedding-ada-002

Additional Parameters

**ChatOpenAI**

Inputs

Cache

Connect Credential: OpenAI

Model Name: gpt-3.5-turbo

Temperature: 0.4

Allow Image Uploads

Additional Parameters

Output: ChatOpenAI

**Conversational Retrieval QA Chain**

Inputs

Chat Model

Vector Store Retriever

Memory

Return Source Documents

Additional Parameters

Output: ConversationalRetrievalQA

Get Relative Links Method

- Web Crawl: Crawl relative links from HTML URL
- Scrape XML Sitemap: Scrape relative links from XML sitemap URL

10

Selector (CSS)

Metadata

0 items

By following these steps, you should be able to

6. Connect your GitHub account.
7. Choose your forked Flowise repo and click "Connect".
8. Fill in your preferred Name and Region.
9. Select Docker as your Runtime.
10. Optionally, add app level authorization by clicking "Advanced" and adding Environment Variables like FLOWISE\_USERNAME, FLOWISE\_PASSWORD, and NODE\_VERSION with the value 18.18.1.
11. Click on "Create Web Service".
12. Navigate to the deployed URL to access your deployed Flowise application.

How can I deploy Flowise to Render?

How can I deploy Flowise to AWS?

How can I set up Flowise as a developer?

React Flow

# 실습 - RAG Chatbot

<https://www.pinecone.io/>

Pinecone Console

app.pinecone.io/organizations/-N\_Zmd0e-zx4U9wfG9X/projects/us-west1-gcp-free:d2c940b/create-index/starter

Unlock \$100 in serverless credits KGP

< Back to Indexes

## Create a new Index

Name

flowise

Configure your Index

The dimensions and metric depend on the model you select.

Dimensions

1,536

Metric

cosine

Capacity Mode

SERVERLESS PODS **STARTER**

Starter

You are currently on the Free Plan

Cancel Create Index

flowise Starter

METRIC	DIMENSIONS	POD TYPE	HOST
cosine	1536	starter	<a href="https://flowise-d2c940b.svc.gcp-starter.pinecone.io">https://flowise-d2c940b.svc.gcp-starter.pinecone.io</a>

CLOUD	REGION	ENVIRONMENT
gcp-starter	Iowa (us-central1)	gcp-starter

# 실습 - RAG Chatbot

Flowise - Low-code LLM apps

localhost:3000/canvas/6384ca1b-c034-481e-a588-3e3fdbd640e0

## RAGWebChatbot

**Recursive Character Text Splitter**

Inputs

Chunk Size: 1000

Chunk Overlap: 50

Additional Parameters

Output: RecursiveCharacterTextSplitter

**Cheerio Web Scraper**

Inputs

Text Splitter

URL: [https://python.langchain.com/docs/expression\\_language/](https://python.langchain.com/docs/expression_language/)

Manage Links

Additional Parameters

Output: Document

**Pinecone**

Inputs

Document

Embeddings: Pinecone API

Pinecone Index: flowise

Additional Parameters

Output: Pinecone Retriever

**ChatOpenAI**

Inputs

Cache

Connect Credential: OpenAI

Model Name: gpt-3.5-turbo

Pinecone API

CREDENTIAL NAME: Pinecone API

Pinecone Api Key

Add

**Conversational Retrieval QA Chain**

Inputs

Chat Model

Vector Store Retriever

Memory

Return Source Documents: ☒

What is a LCEL?

LangChain Expression Language, or LCEL, is a declarative way to easily compose chains together. It was designed to support putting prototypes into production without code changes, from simple chains to complex ones with hundreds of steps. Some reasons to use LCEL include streaming support, optimized parallel execution, async support, retries and fallbacks configuration, access to intermediate results, and seamless integration with LangServe and LangSmith.

/docs/expresio...

Type your question: What is a LCEL?



# 실습 - Chatflow 분석

The screenshot displays the Flowise web application interface. The main workspace shows a chatflow titled "RAGWebChatbot" with two nodes: "Recursive Character Text Splitter" and "Cheerio Web Scraper". The "Recursive Character Text Splitter" node has inputs for "Chunk Size" (1000) and "Chunk Overlap" (50), and an output labeled "RecursiveCharacterTextSplitter". The "Cheerio Web Scraper" node has an input for "URL" (https://python.langchain.com/docs/ex) and an output labeled "Document".

An "Analyse Chatflow" modal is open in the center, showing the following details:

- LangSmith** (https://smith.langchain.com) - Status: ON
- Connect Credential \***: Dropdown menu showing "Langsmith"
- Project Name**: Text input field containing "RAG Web Chatbot"
- On/Off**: Toggle switch (currently ON)
- LangFuse** (https://langfuse.com) - Status: ON
- Lunary** (https://lunary.ai) - Status: ON
- Save** button

On the right side, a sidebar menu is visible with the following options:

- Starter Prompts
- View Messages
- Speech to Text
- Duplicate Chatflow
- Load Chatflow
- Export Chatflow
- Analyse Chatflow** (highlighted with a red box)
- Delete Chatflow

A blue arrow points from the "Analyse Chatflow" option in the sidebar to the "Analyse Chatflow" modal.

# 실습 - Chatflow 분석

smith.langchain.com/o/99048fc5-5e46-5edd-8a00-98665c3d24e7/projects/p/534faf7c-a1df-4f31-9d47-5793da9a8aa2?columnVisibilityModel=%7B"outputs"%3Afalse%2C"feedback\_stats"%3Afalse%2C"reference\_...

Personal > Projects > RAG Web Chatbot

## RAG Web Chatbot

Traces LLM Calls All Runs Monitor Setup

Filters Last 7 days

		✓	Name	Input	Start Time	Latency	Dataset	Annotation Queue	Tokens	Cost
<input type="checkbox"/>	>	✓	RunnableSequence	Explain about Async s...	2024. 3. 11. 오후 10:4...	3.03s	<input type="checkbox"/>		1,837	\$0.0009985
<input type="checkbox"/>	>	✓	RunnableSequence	Show an example of u...	2024. 3. 11. 오후 10:4...	2.73s	<input type="checkbox"/>		1,735	\$0.0008845
<input type="checkbox"/>	>	✓	RunnableSequence	LCEL 주요 기능을 요약...	2024. 3. 11. 오후 10:4...	4.01s	<input type="checkbox"/>		1,693	\$0.0008635
<input type="checkbox"/>	>	✓	RunnableSequence	What is a LCEL?	2024. 3. 11. 오후 10:4...	4.53s	<input type="checkbox"/>		1,570	\$0.000883

Trace Collapse Stats Most relevant

RunnableSequence SUCCESS 4.53s 1,570

map:key:context 2.03s

FindDocs 2.02s

RetrievalChain... 2.02s

CondenseQ... 0.93s

ChatOpenAI 0.93s

VectorStoreRetr... 1.09s

ChatOpenAI 2.49s

Some runs have been hidden. [Show 14 hidden runs](#)

### Runnable...

Run Feedback Metadata

Input

```
1 question:
  What is a
  LCEL?
2 chat_histo
  ry:
3 -
  message:
    What is a
    LCEL?
4 type:
  userMessag
  e
5 -
  message:
    LangChain
    Expression
```

YAML

Output





수고하셨습니다. 감사합니다.