

# Promptior technical challenge - Federico Traiman

## Tech stack

- LangChain 0.1.0: Orchestration framework
- Ollama: Local LLM server
- Llama 3: Language model
- ChromaDB: Vector store/database
- LangServe: API framework
- FastAPI: Web server
- BeautifulSoup4: Web scraping library

## Key Interaction Flow

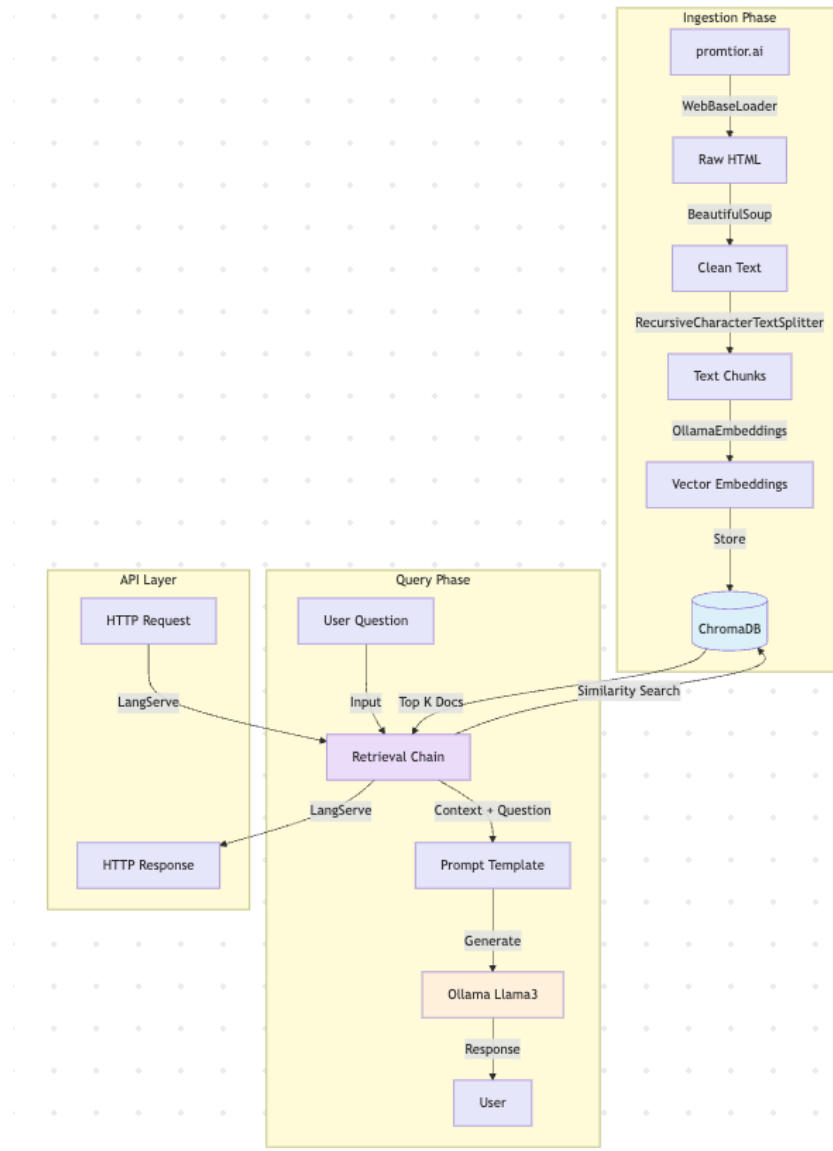
### 1. Ingestion (Pre-processing)

- Input: The system scrapes [promptior.ai](https://promptior.ai).
- Embeddings: Text is split into chunks and converted into vectors using OllamaEmbeddings.
- Storage: Vectors are stored locally in ChromaDB.

### 2. Runtime (Chat)

- Receive Question: User sends a question via the API or Playground.
- Retrieval: The system searches ChromaDB for the most relevant text chunks.
- Generation: The question + relevant context are sent to the Ollama (Llama 3) model running locally.
- Response: The model's answer is streamed back to the user.

## Implementation diagram

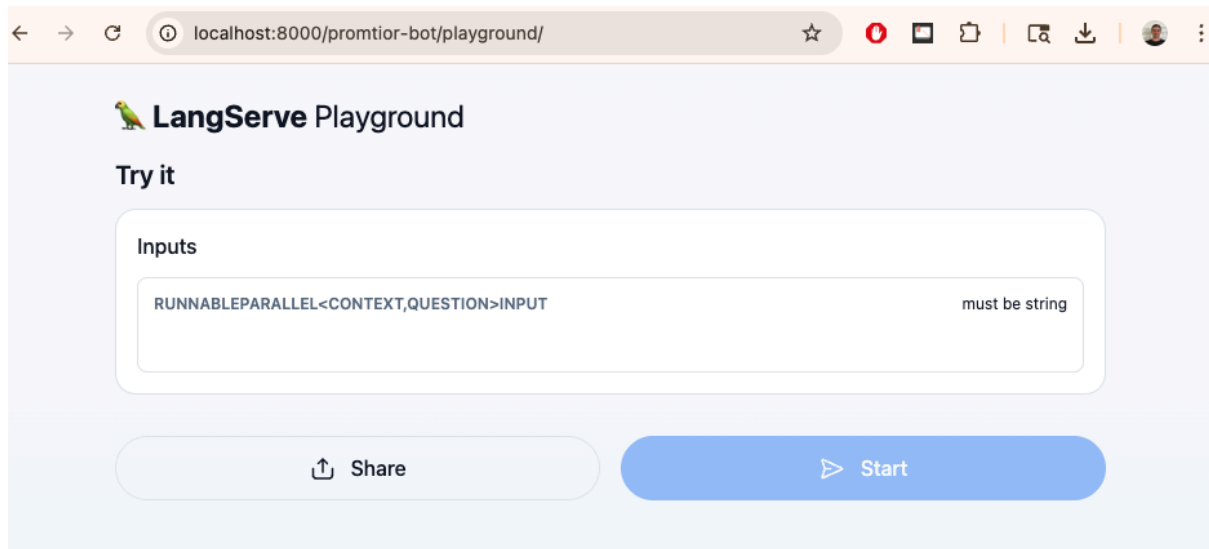


## Instructions to execute

Execute the following commands in the terminal:

1. `python3 -m pip install -r requirements.txt` (install dependencies)
2. `python3 -m app.ingest` (initiate data ingestion)
3. `python3 -m app.server` (start the server app)
4. <http://localhost:8000/promtior-bot/playground/> (open visual interface)

## Visual interface



## Testing the app

### Data ingestion

```
[federicotraiman@34HW016989 promtior-ollama-bot % python3 -m app.ingest
/Users/federicotraiman/Library/Python/3.9/lib/python/site-packages/urllib3/__init__.py:35: NotOpenSSLWarning:
urllib3 v2 only supports OpenSSL 1.1.1+, currently the 'ssl' module is compiled with 'LibreSSL 2.8.3
'. See: https://github.com/urllib3/urllib3/issues/3020
warnings.warn(
USER_AGENT environment variable not set, consider setting it to identify your requests.
🌐 Loading data from https://promtior.ai/...
✓ Loaded 1 document(s)

📄 Splitting text into chunks...
✓ Created 4 chunks

🗑 Removing old vector store...

🌀 Creating embeddings with Ollama (llama3)...
/Users/federicotraiman/Projects/Promptier/promtior-ollama-bot/app/ingest.py:44: LangChainDeprecationWarning:
The class `OllamaEmbeddings` was deprecated in LangChain 0.3.1 and will be removed in 1.0.0. An update
d version of the class exists in the :class:`~langchain-ollama` package and should be used instead. To use
it run `pip install -U :class:`~langchain-ollama` and import as `from :class:`~langchain_ollama import O
llamaEmbeddings`.
  embeddings = OllamaEmbeddings(model=OLLAMA_MODEL, base_url=OLLAMA_BASE_URL)
📁 Storing in ChromaDB at /Users/federicotraiman/Projects/Promptier/promtior-ollama-bot/data/chroma_db...

✅ Ingestion complete! 4 chunks stored in vector database.
federicotraiman@34HW016989 promtior-ollama-bot %
```

# Starting the app

```
federicotraiman@34HW016989 promptior-ollama-bot % python3 -m app.server

/Users/federicotraiman/Library/Python/3.9/lib/python/site-packages/urllib3/__init__.py:35: NotOpenSSLWarning
: urllib3 v2 only supports OpenSSL 1.1.1+, currently the 'ssl' module is compiled with 'LibreSSL 2.8.3
'. See: https://github.com/urllib3/urllib3/issues/3020
  warnings.warn(
/Users/federicotraiman/Projects/Promptier/promptior-ollama-bot/app/chain.py:24: LangChainDeprecationWarning
: The class `OllamaEmbeddings` was deprecated in LangChain 0.3.1 and will be removed in 1.0.0. An updated
version of the class exists in the :class:`~langchain-ollama` package and should be used instead. To use
it run `pip install -U :class:`~langchain-ollama` and import as `from :class:`~langchain_ollama import Ol
lamaEmbeddings``.
  embeddings = OllamaEmbeddings(model=OLLAMA_MODEL, base_url=OLLAMA_BASE_URL)
/Users/federicotraiman/Projects/Promptier/promptior-ollama-bot/app/chain.py:27: LangChainDeprecationWarning
: The class `Chroma` was deprecated in LangChain 0.2.9 and will be removed in 1.0. An updated version of
the class exists in the :class:`~langchain-chroma` package and should be used instead. To use it run `pip
install -U :class:`~langchain-chroma` and import as `from :class:`~langchain_chroma import Chroma``.
  vectorstore = Chroma(
/Users/federicotraiman/Projects/Promptier/promptior-ollama-bot/app/chain.py:35: LangChainDeprecationWarning
: The class `ChatOllama` was deprecated in LangChain 0.3.1 and will be removed in 1.0.0. An updated versi
on of the class exists in the :class:`~langchain-ollama` package and should be used instead. To use it run
`pip install -U :class:`~langchain-ollama` and import as `from :class:`~langchain_ollama import ChatOlla
ma``.
  llm = ChatOllama(model=OLLAMA_MODEL, base_url=OLLAMA_BASE_URL, temperature=0)
✓ Server initialized successfully!
📌 Endpoints:
  - Playground: http://localhost:8000/promptior-bot/playground
  - Invoke: http://localhost:8000/promptior-bot/invoke
  - Stream: http://localhost:8000/promptior-bot/stream
INFO:      Started server process [86136]
INFO:      Waiting for application startup.
```

LANGSERVE


```
LANGSERVE: Playground for chain "/promptior-bot/" is live at:
LANGSERVE: |
LANGSERVE: |> /promptior-bot/playground/
LANGSERVE: See all available routes at /docs/
INFO:      Application startup complete.
```

## Sample questions

### What services does Promptior offer?

← → ↻

Not Secure 0.0.0.0:8000/promptior-bot/playground/ 🔍 ☆ 🔴 🖨 📄

 **LangServe** Playground

Try it

Inputs Reset

RUNNABLEPARALLEL<CONTEXT,QUESTION>=INPUT  
What services does Promptior offer?


Output


Basándome en el contexto proporcionado, puedo responder que Promptior ofrece los siguientes servicios:

- \* GenAI Department as a service
- \* GenAI Adoption Consulting
- \* Transform your Business with Generative AI (Operations)
  - + Automate repetitive tasks.
  - + Optimize workflow processes.
  - + Reduce manual errors.
- \* Technology
  - + Auto-generate and review code.
  - + Automate software testing.
  - + Optimize IT resources.
- \* Sales
  - + Personalize customer communications.
  - + Predict customer needs.
  - + Automate lead follow-ups.
- \* Legal
  - + Quickly extract key information from documents.
  - + Generate draft contracts.
  - + Comparative analysis of regulations.
- \* Customer Service
  - + Provide automated and personalized responses.
  - + Real-time sentiment analysis.
  - + Proactive case and ticket management.
- \* Finance
  - + Predictive analysis of financial trends.
  - + Automatically generate financial reports.
  - + Detect fraud and anomalies.

Además, Promptior también ofrece GenAI Product Delivery, que incluye predictive analytics, intelligent automation y otros servicios.

Intermediate steps 8 >

 Share

 Start

## When was the company founded?

The screenshot shows a web browser window with the address bar displaying `localhost:8000/promtior-bot/playground/`. The page title is "LangServe Playground". Under the "Try it" section, the "Inputs" field contains the prompt `RUNNABLEPARALLEL<CONTEXT,QUESTION>INPUT` followed by the question "When was the company founded?". A "Reset" button is located to the right of the input field. The "Output" section shows the response: "No tengo suficiente información para responder esa pregunta." Below the output, there is a section for "Intermediate steps" showing 8 steps, with a right arrow icon. At the bottom, there are two buttons: a light blue "Share" button with an upload icon and a blue "Start" button with a play icon.

LangServe Playground

Try it

Inputs Reset

`RUNNABLEPARALLEL<CONTEXT,QUESTION>INPUT`  
When was the company founded?

Output

No tengo suficiente información para responder esa pregunta.

Intermediate steps 8 >

Share Start