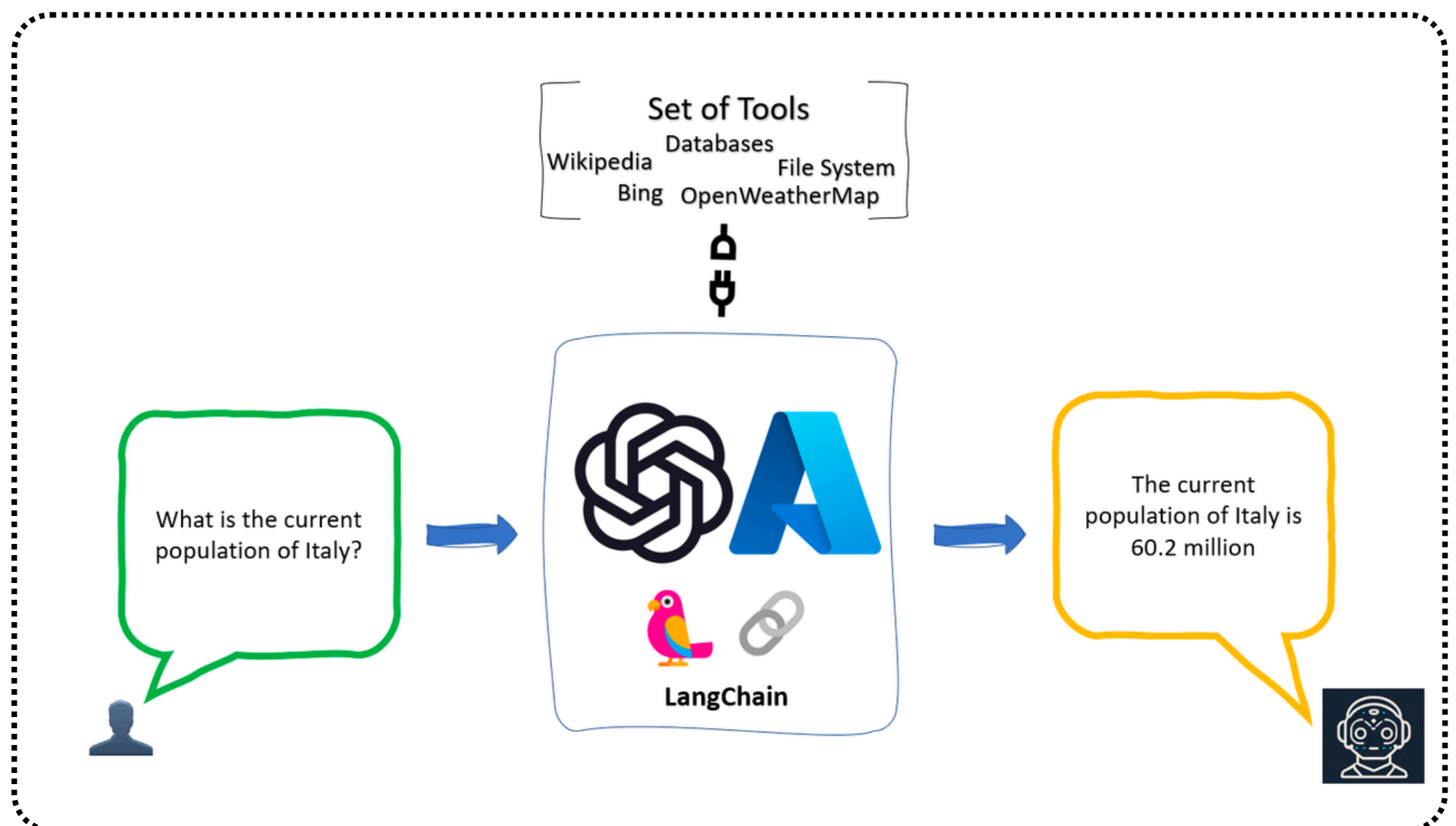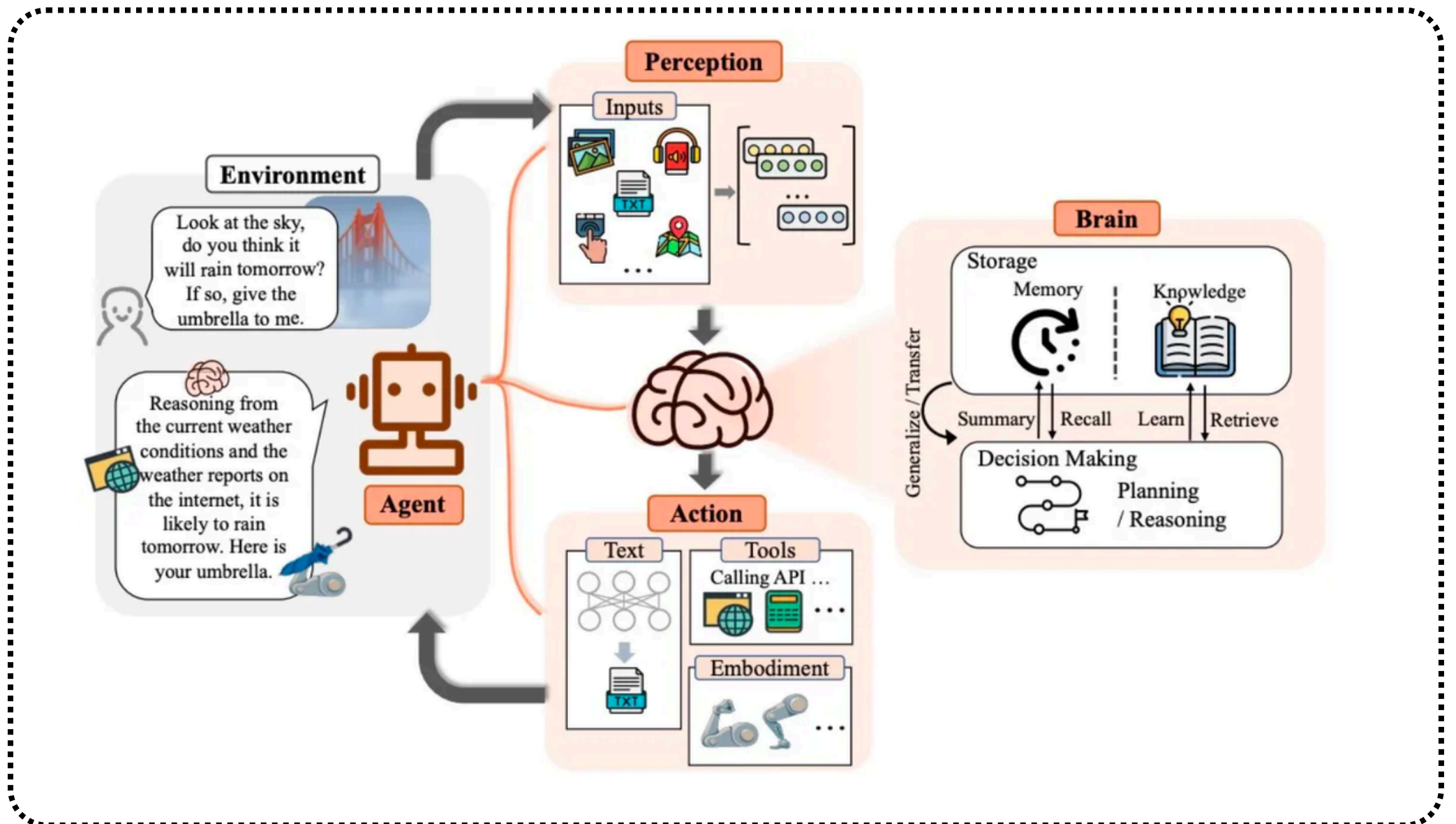# Building Smart AI Agents with LangChain

To demonstrate the use of an agent with web scraping and the fundus library, we can create a Python script that uses LangChain to build an agent that scrapes articles from the web and summarizes them.

You'll need a Python environment configured with the necessary libraries to get started. Here's how to install LangChain :

```
pip install langchain fundus
```

Imports

```python
from langchain.agents import tool
from langchain_openai import ChatOpenAI
from fundus import PublisherCollection, Crawler, Requires
from langchain_core.prompts import ChatPromptTemplate, MessagesPlaceholder
```

Initializing the LLM

llm = ChatOpenAI(model="gpt-3.5-turbo", temperature=0)

ChatOpenAI: Initializes an instance of the GPT-3.5 model with a temperature setting of 0, which makes the model's responses more deterministic.

Defining Tools for Web Scraping

In this section, we extract an article from a USA news publisher with fundus library.

```python
@tool
def extract_article(max_article: int):
    """Returns a news article article from USA."""
    crawler = Crawler(PublisherCollection.us)

    article_extracted = [article.body.text() for article in crawler.crawl(max_articles=max_article)][0]
    return str(article_extracted)
```

- **@tool**: Decorator that defines the function as a tool for the agent.
- **Crawler(PublisherCollection.us)**: Initializes a crawler for the US publisher collection.
- **crawler.crawl(max_articles=max_article)**: Crawls the website for the specified number of articles.
- **article.body.text()**: Extracts the text of the article body.
- **return str(article_extracted)**: Returns the extracted article text as a string.

Defining Tools for Web Scraping

The article is:

The families of civilians killed by the U.S. in Somalia share their ideas of justice in a new report. The Pentagon has no response. The American military has been carrying out a continuous military campaign in Somalia since the 2000s, launching nearly 300 drone strikes and commando raids over the past 17 years. In one April 2018 air attack, American troops killed three, and possibly five, civilians with a pair of missiles. A U.S. military investigation reported that the second missile killed a woman and child, but the report concluded their identities might remain unknown.

Last year, my investigation for The Intercept exposed the details of this disastrous attack. The second missile killed 22-year-old Luul Dahir Mohamed and her 4-year-old daughter, Mariam Shilow Muse, after they survived the initial strike.

This is an example of the article text that might be extracted by the extract_article tool.

Listing Tool

```
tools = [extract_article]
```

Prompt Template

```
prompt = ChatPromptTemplate.from_messages(
    [
        ("system", "You are very powerful assistant, but don't know current events"),
        ("user", "{input}"),
        MessagesPlaceholder(variable_name="agent_scratchpad"),
    ]
)
```

- **ChatPromptTemplate.from_messages**: Creates a prompt template for the agent.

- **MessagesPlaceholder**: Placeholder for the agent's scratchpad (intermediate steps).

For more information, visit this **[article](#)**

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