

Cheshire Cat AI

PRODUCTION-READY AI ASSISTANT FRAMEWORK



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WHO I AM



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Contacts



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Actually @  **FINCONS**
GROUP

Previous Main Experiences

healthware[■]
international

 **integris**



Communities and Open Source Projects



Cheshire Cat
The AI Assistant Framework

CHESHIRE CAT AI CHALLENGE

Commencing **AI development** presents formidable challenges. It **involves navigating** a labyrinth of **intricate science and mathematics** concepts, coupled with the daunting task of selecting and configuring from a vast array of **sophisticated libraries and softwares**.

CHESHIRE CAT AI MISSION

We aim to **remove barriers**, making AI accessible to all and fostering innovation with simplicity at the core of our approach.

We offer a **production-ready AI framework** that empowers individuals with elementary Python knowledge to **save 2.000 of hours in development** time.

LLM IN DOMAIN – SPECIFIC SOLUTION

Companies stand to gain a lot of productivity improvements through LLMs like ChatGPT or Llama2.

Pros

- Ready to use models were trained on a gigantic set of (publicly available) data.
- Pretrained models save costs
- Simple integration using API

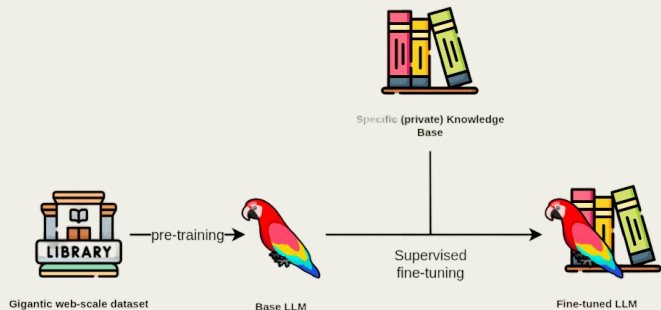
Cons

- They **haven't internal knowledge** base:
 - No access to internal documents/resources in train
 - No access to domain – specific vocabulary

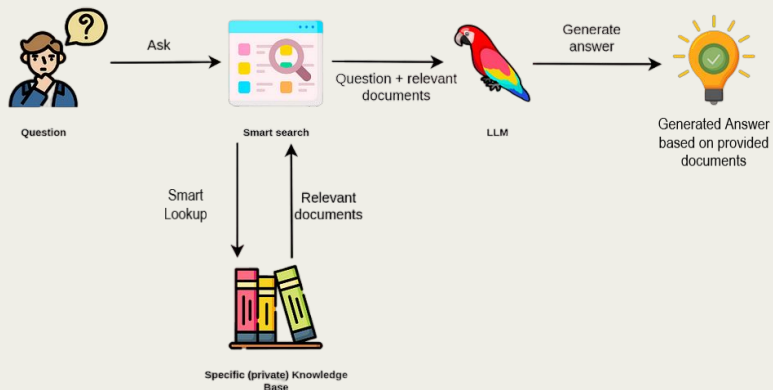


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FINE TUNING Vs RAG

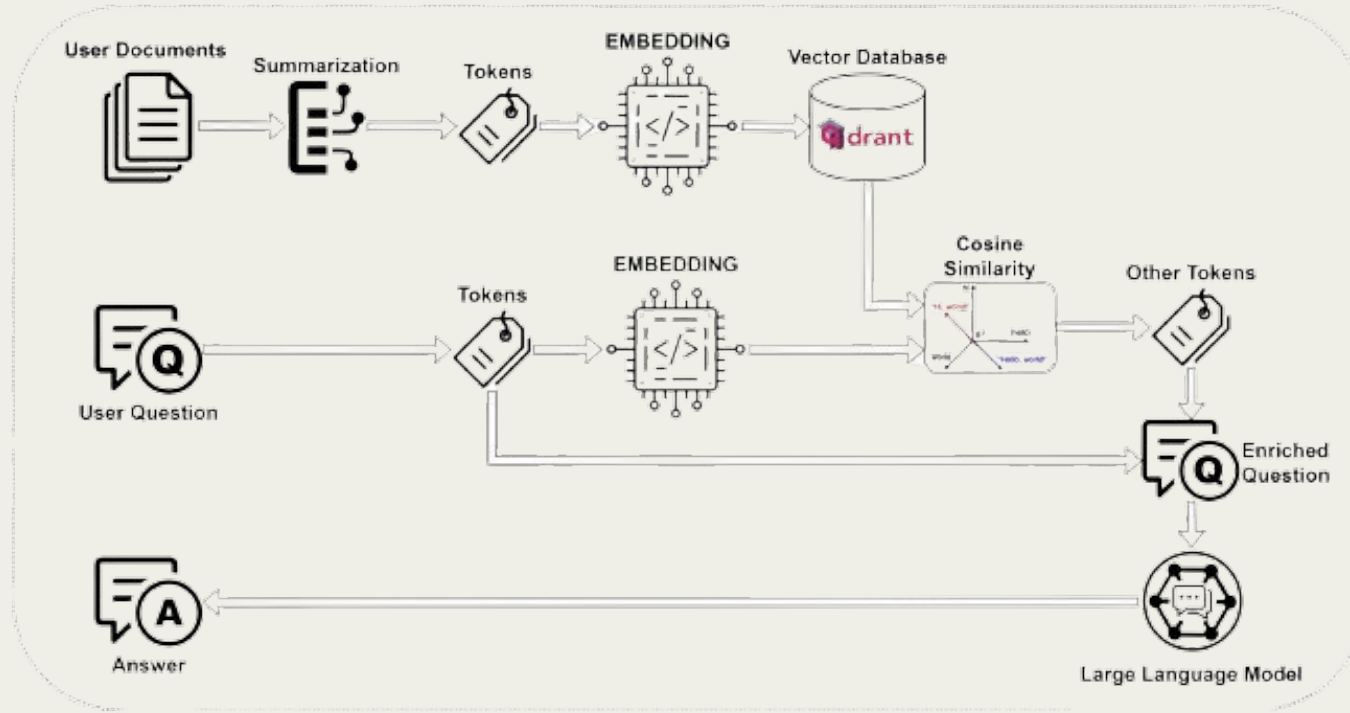


“Fine-tuning a large language model involves adjusting and adapting a pre-trained model to perform specific tasks or to cater to a particular domain more effectively”

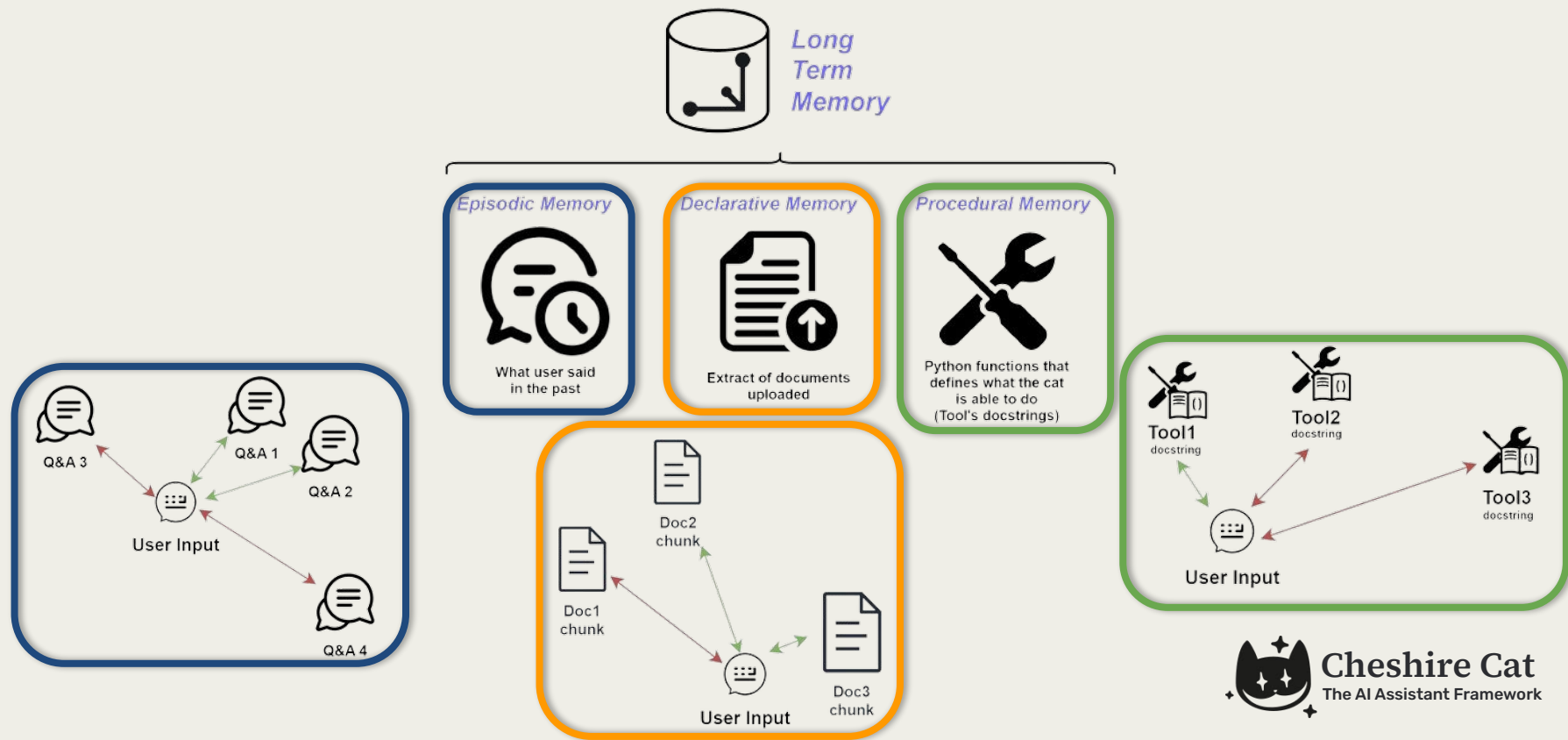


“Retrieval Augmented Generation means fetching up-to-date or context-specific data from an external database and making it available to an LLM when asking it to generate a response”

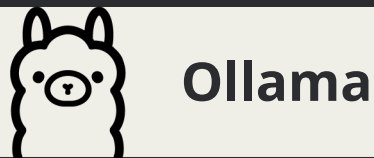
CHESHIRE CAT's RAG PIPELINE



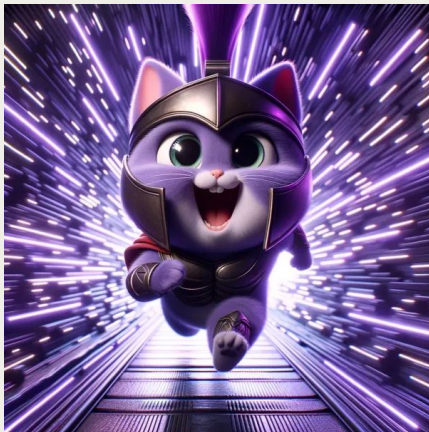
CHESHIRE CAT's MEMORY



CHESHIRE CAT AI IS LANGUAGE MODEL AGNOSTIC...



*...BUT **IT ISN'T** A
LLM RUNNER!*



THE CORE



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HOW TO CUSTOMIZE THE CHESHIRE CAT

Cheshire Cat uses a **plugin logic inspired by Wordpress**.

There are mainly two ways to intrude on the pipeline:

1. Customize the agent via *@hook*
 - a. Allow custom logic to be added at specific points
2. Add "memories" of Python functions via *@tools*
 - a. Allows you to add API interaction logics or new functions

[Write your first plugin \(from blog\)](#)



HOW TO CUSTOMIZE THE CHESHIRE CAT

<div>Flow Agent Rabbit Hole Plugin</div>	
Name	Description
Before Cat bootstrap +	Intervene before the Cat's instantiate its components
After Cat bootstrap +	Intervene after the Cat's instantiated its components
Before Cat reads message +	Intervene as soon as a WebSocket message is received
Cat recall query +	Intervene before the recall query is embedded
Before Cat recalls memories +	Intervene before the Cat searches into the specific memories
Before Cat recalls episodic memories +	Intervene before the Cat searches in previous users' messages
Before Cat recalls declarative memories +	Intervene before the Cat searches in the documents
Before Cat recalls procedural memories +	Intervene before the Cat searches among the action it knows
After Cat recalls memories +	Intervene after the Cat's recalled the content from the memories
Before Cat sends message +	Intervene before the Cat sends its answer via WebSocket

```
from cat.mad_hatter.decorators import tool, hook
```

```
@hook
```

```
def agent_prompt_prefix(prefix, cat):
```

```
    prefix = """You are Marvin the socks seller, a poetic vendor of  
You are an expert in socks, and you reply with exactly one rhyme.  
"""
```

```
    return prefix
```

```
@tool(return_direct=True)
```

```
def socks_prices(color, cat):
```

```
    """How much do socks cost? Input is the sock color."""
```

```
    prices = {
```

```
        "black": 5,
```

```
        "white": 10,
```

```
        "pink": 50,
```

```
    }
```

```
    if color not in prices.keys():
```

```
        return f"No {color} socks"
```

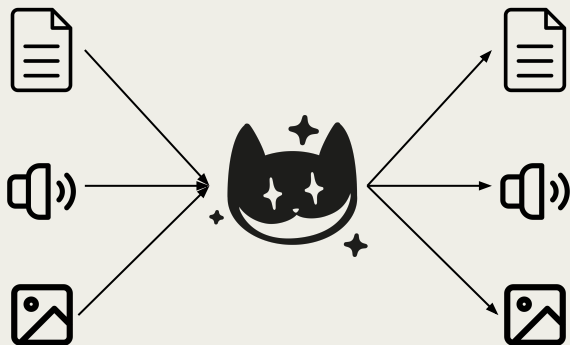
```
    else:
```

```
        return f"{prices[color]} €"
```



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NEXT STEPS



Multimodality



Forms



Knowledge Graph

[Check our Pizza
Challenge](#)

DEMO TIME

How did I develop the simplest and most fun plugin in Wonderland?

It's time to meet... ...Gerry sCATty



Any Questions?

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Thank you!

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Keep in touch!

CHESHIRE CAT AI



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<https://github.com/cheshire-cat-ai>



<https://www.linkedin.com/company/cheshire-cat-ai>



<https://medium.com/mad-chatter-tea-party>



<https://discord.gg/cheshire-cat>



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