

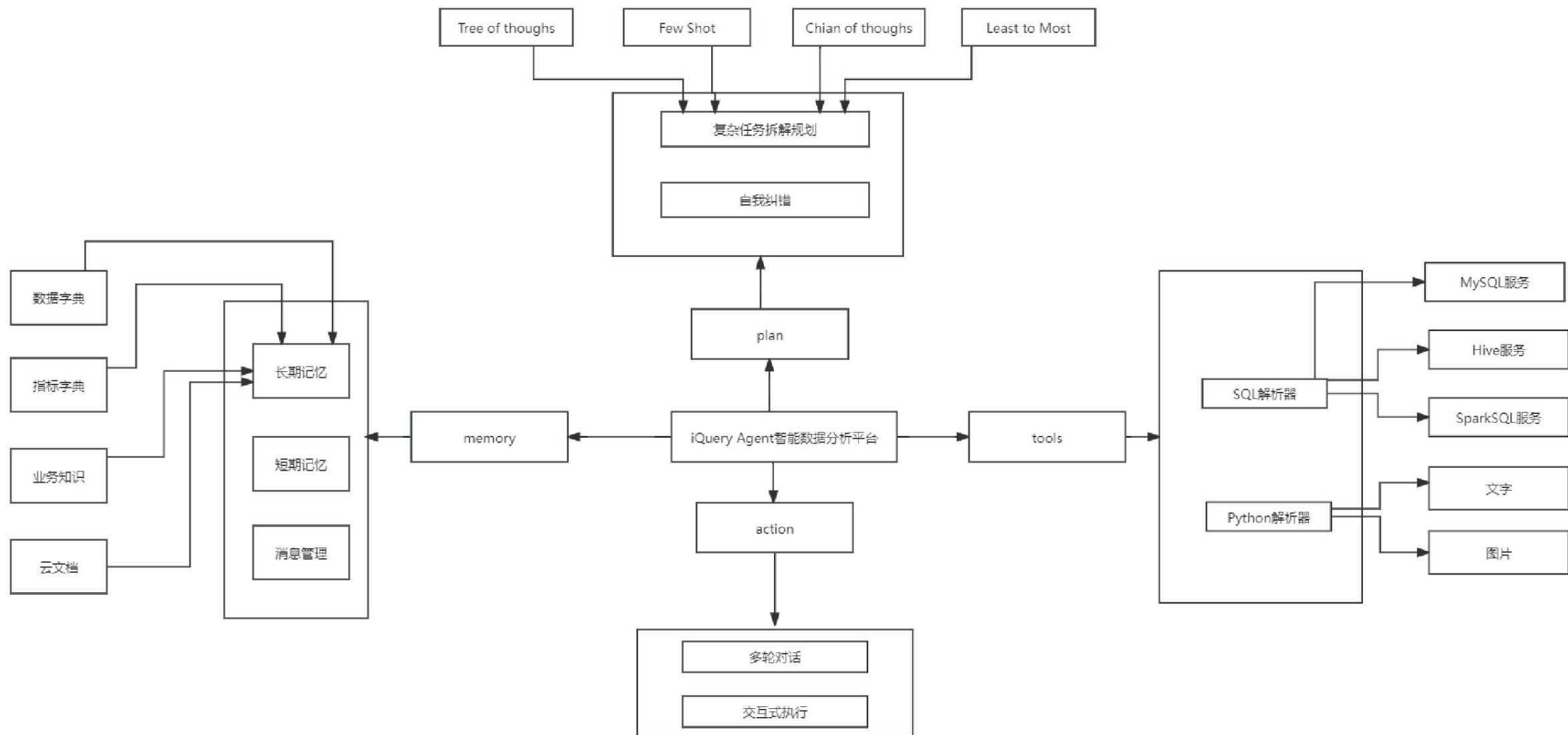
# AI 大模型开发工程师 LangChain全面剖析之Memory

讲师：李希沅

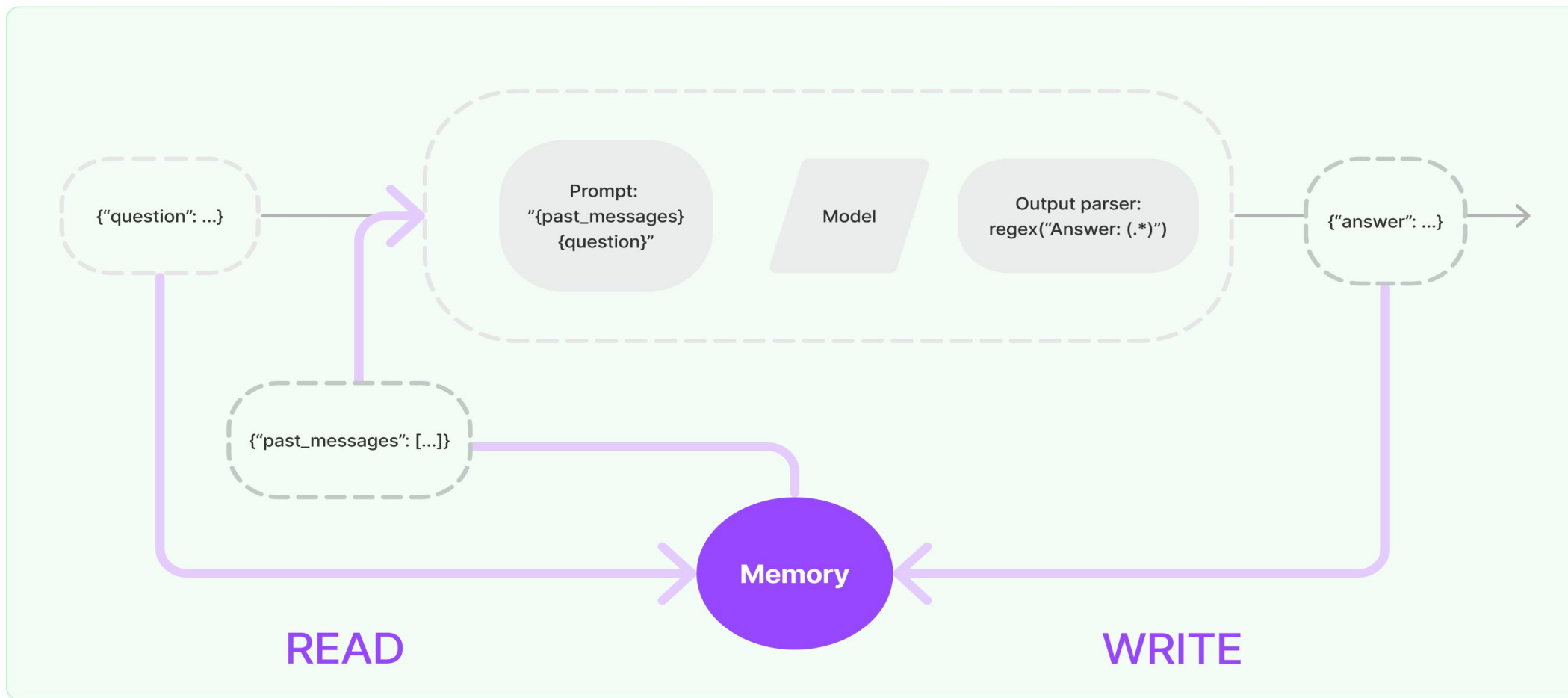
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- 2 如何自定义Memory模块
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# **1 Memory 的设计理念和意义**



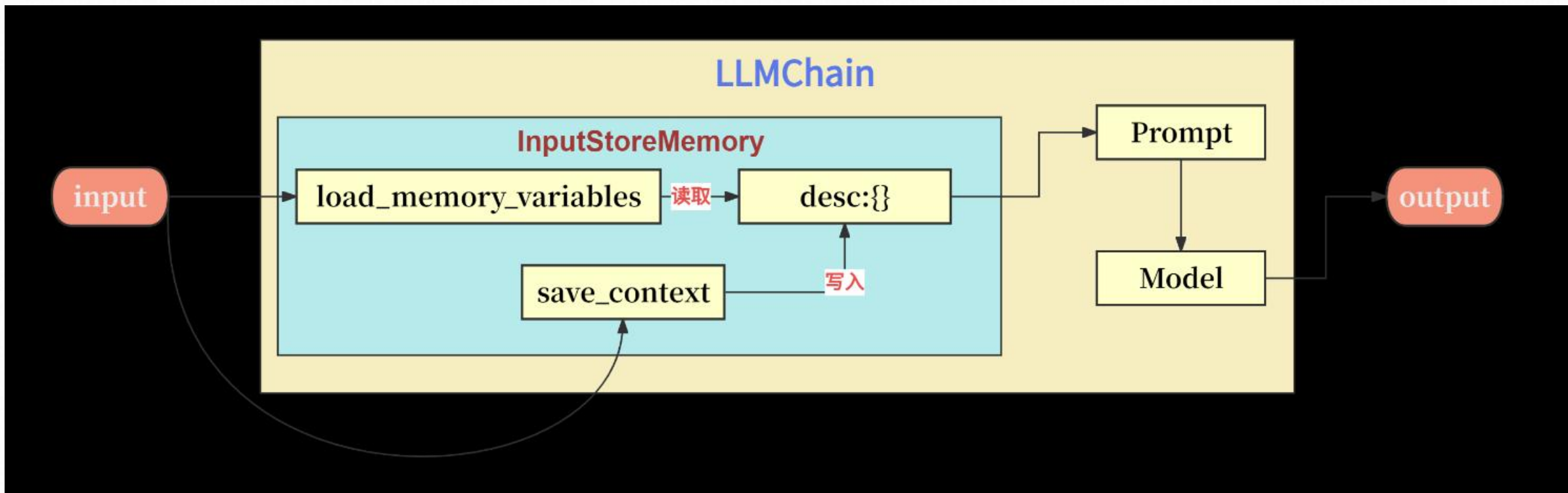
# 01、Memory



## ② 如何自定义Memory模块



# 01、自定义Memory模块设计思路



## 02、自定义实体识别的Memory

← → ↻ spacy.io/models/zh

spacy

Interested in Premium spaCy Models?

USAGE

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MODELS

Overview

TRAINED PIPELINES

Catalan

Chinese

zh\_core\_web\_sm

zh\_core\_web\_md

zh\_core\_web\_lg

zh\_core\_web\_trf

Croatian

Danish

Dutch

English

Finnish

French

German

Greek

Italian

Japanese

Korean

Lithuanian

Macedonian

Multi-language

Norwegian Bokmål

# Chinese

Available trained pipelines for Chinese

## zh\_core\_web\_sm

RELEASE DETAILS

Latest: 3.7.0

Chinese pipeline optimized for CPU. Components: tok2vec, tagger, parser, sender, ner, attribute\_ruler.

LANGUAGE	ZH Chinese
TYPE	CORE Vocabulary, syntax, entities
GENRE	WEB written text (blogs, news, comments)
SIZE	SM 46 MB
COMPONENTS ?	tok2vec, tagger, parser, sender, attribute_ruler, ner
PIPELINE ?	tok2vec, tagger, parser, attribute_ruler, ner
VECTORS ?	0 keys, 0 unique vectors (0 dimensions)
DOWNLOAD LINK ?	zh_core_web_sm-3.7.0-py3-none-any.whl

INSTALLATION

```
$ python -m spacy download zh_core_web_sm
```



### ③ 内置Memory模块API实践

# 01、内置Memory

Classes	
对话类	<code>memory.buffer.ConversationBufferMemory</code> Buffer for storing conversation memory.
	<code>memory.buffer.ConversationStringBufferMemory</code> Buffer for storing conversation memory.
	<code>memory.buffer_window.ConversationBufferWindowMemory</code> Buffer for storing conversation memory inside a limited size window.
	<code>memory.chat_memory.BaseChatMemory</code> Abstract base class for chat memory.
实体类	<code>memory.combined.CombinedMemory</code> Combining multiple memories' data together.
	<code>memory.entity.BaseEntityStore</code> Abstract base class for Entity store.
	<code>memory.entity.ConversationEntityMemory</code> Entity extractor & summarizer memory.
	<code>memory.entity.InMemoryEntityStore</code> In-memory Entity store.
	<code>memory.entity.RedisEntityStore</code> Redis-backed Entity store.
	<code>memory.entity.SQLiteEntityStore</code> SQLite-backed Entity store
摘要类	<code>memory.entity.UpstashRedisEntityStore</code> Upstash Redis backed Entity store.
	<code>memory.kg.ConversationKGMemory</code> Knowledge graph conversation memory.
	<code>memory.motorhead_memory.MotorheadMemory</code> Chat message memory backed by Motorhead service.
	<code>memory.readonly.ReadOnlySharedMemory</code> A memory wrapper that is read-only and cannot be changed.
	<code>memory.simple.SimpleMemory</code> Simple memory for storing context or other information that shouldn't ever change between prompts.
	<code>memory.summary.ConversationSummaryMemory</code> Conversation summarizer to chat memory.
	<code>memory.summary.SummarizerMixin</code> Mixin for summarizer.
	<code>memory.summary_buffer.ConversationSummaryBufferMemory</code> Buffer with summarizer for storing conversation memory.
	<code>memory.token_buffer.ConversationTokenBufferMemory</code> Conversation chat memory with token limit.
	<code>memory.vectorstore.VectorStoreRetrieverMemory</code> VectorStoreRetriever-backed memory.
	<code>memory.zep_memory.ZepMemory</code> Persist your chain history to the Zep MemoryStore.



THANK YOU