AI 大模型开发工程师
LangChain全面剖析之Chains

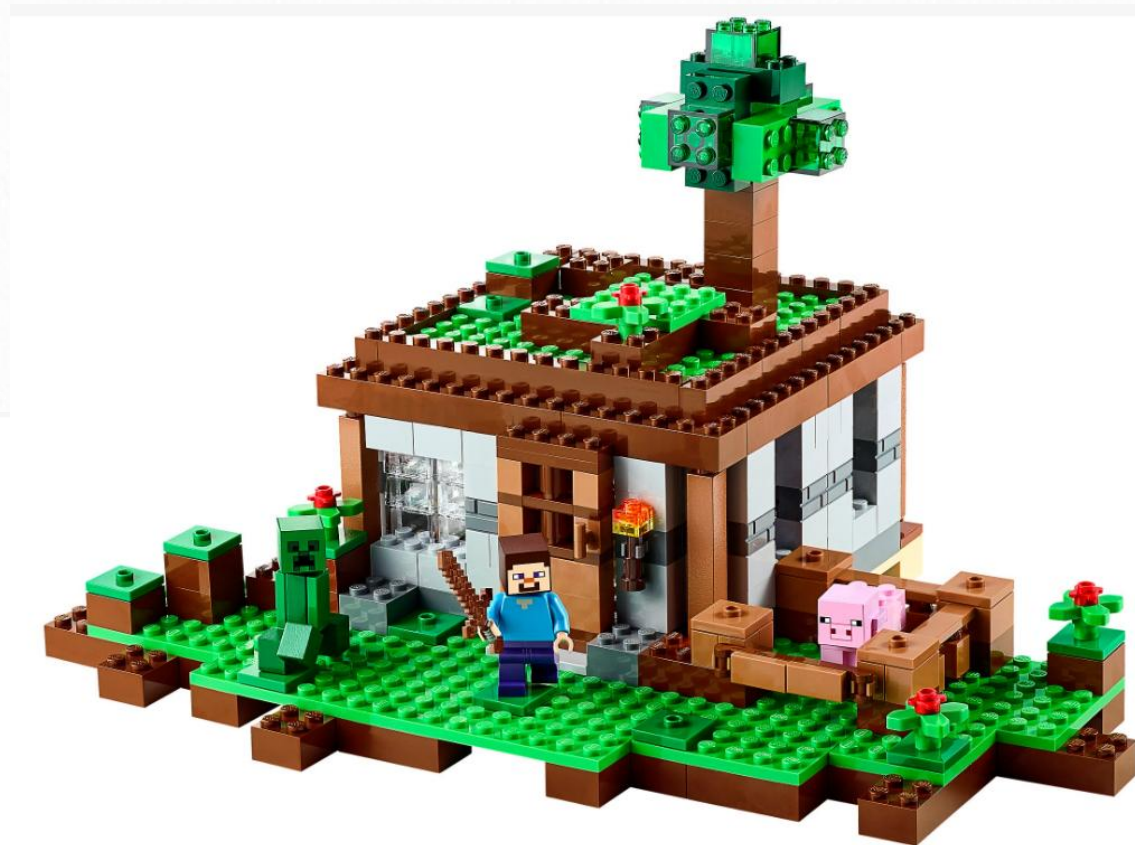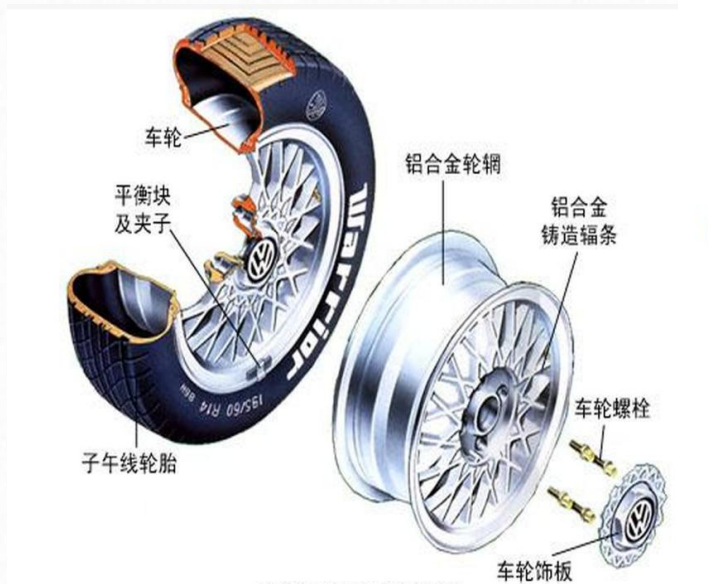讲师：李希沅

" 目录

① Chains的设计理念和意义

车轮

平衡块
及夹子

铝合金轮辋

铝合金
铸造辐条

车轮螺栓

子午线轮胎

车轮饰板

② 基于LCEL的Chains类型

01、Chains的类型

Chain Constructor	Function Calling	Other Tools
create_stuff_documents_chain		
create_openai_fn_runnable	☑	
create_structured_output_runnable	☑	
load_query_constructor_runnable		
create_sql_query_chain		SQL Database
create_history_aware_retriever		Retriever
create_retrieval_chain		Retriever

Chain
APIChain
OpenAPIEndpointChain
ConversationalRetrievalChain
StuffDocumentsChain
ReduceDocumentsChain
MapReduceDocumentsChain
RefineDocumentsChain

MapRerankDocumentsChain
ConstitutionalChain
LLMChain
ElasticsearchDatabaseChain
FlareChain
ArangoGraphQAChain
GraphCypherQAChain
FalkorDBGraphQAChain
HugeGraphQAChain
KuzuQAChain
NebulaGraphQAChain

NeptuneOpenCypherQAChain
GraphSparqlChain
LLMMath
LLMCheckerChain
LLMSummarizationChecker
create_citation_fuzzy_match_chain
create_extraction_chain
create_extraction_chain_pydantic
get_openapi_chain
create_qa_with_structure_chain
create_qa_with_sources_chain
QAGenerationChain
RetrievalQAWithSourcesChain

load_qa_with_sources_chain
RetrievalQA
MultiPromptChain
MultiRetrievalQAChain
EmbeddingRouterChain
LLMRouterChain
load_summarize_chain
LLMRequestsChain

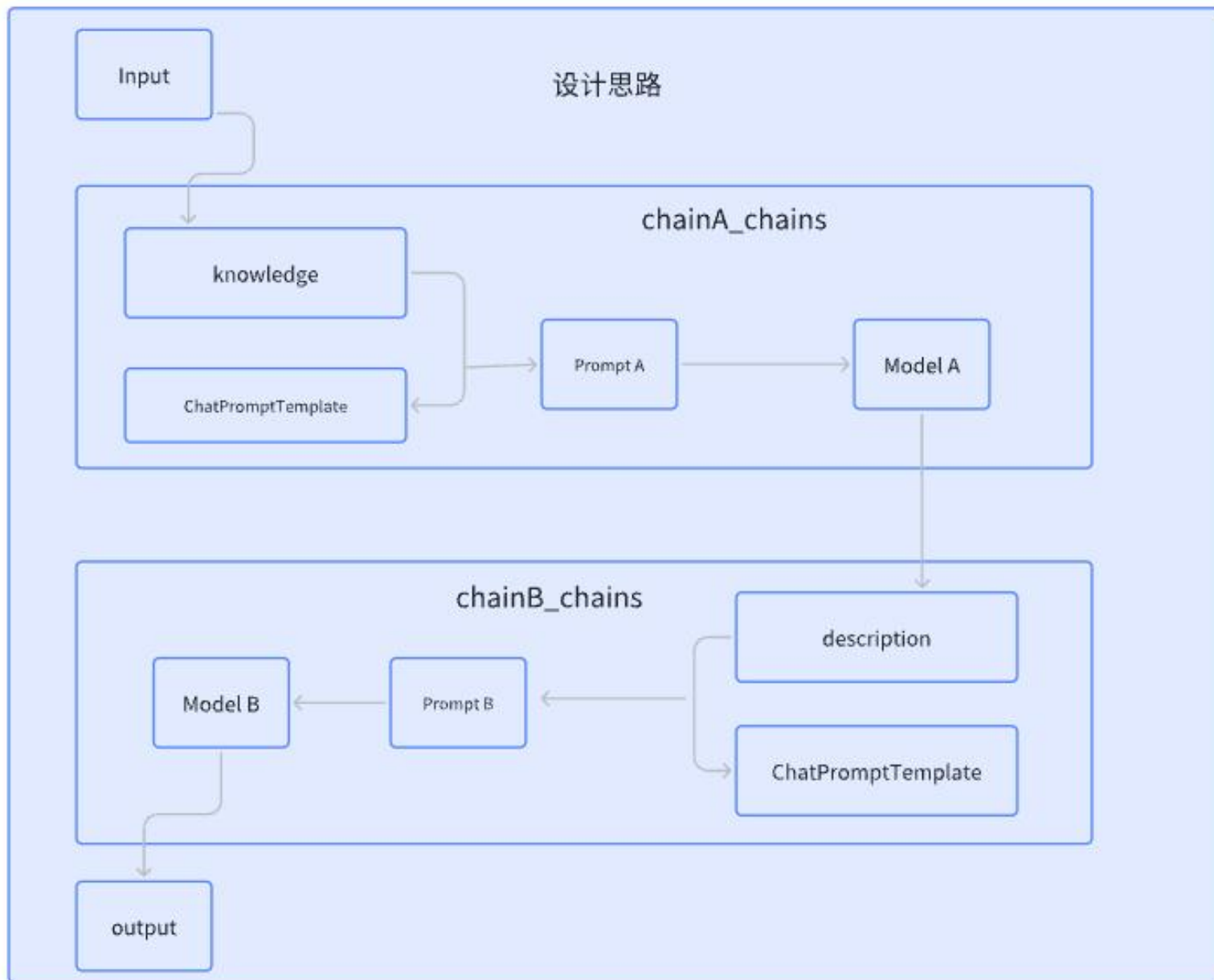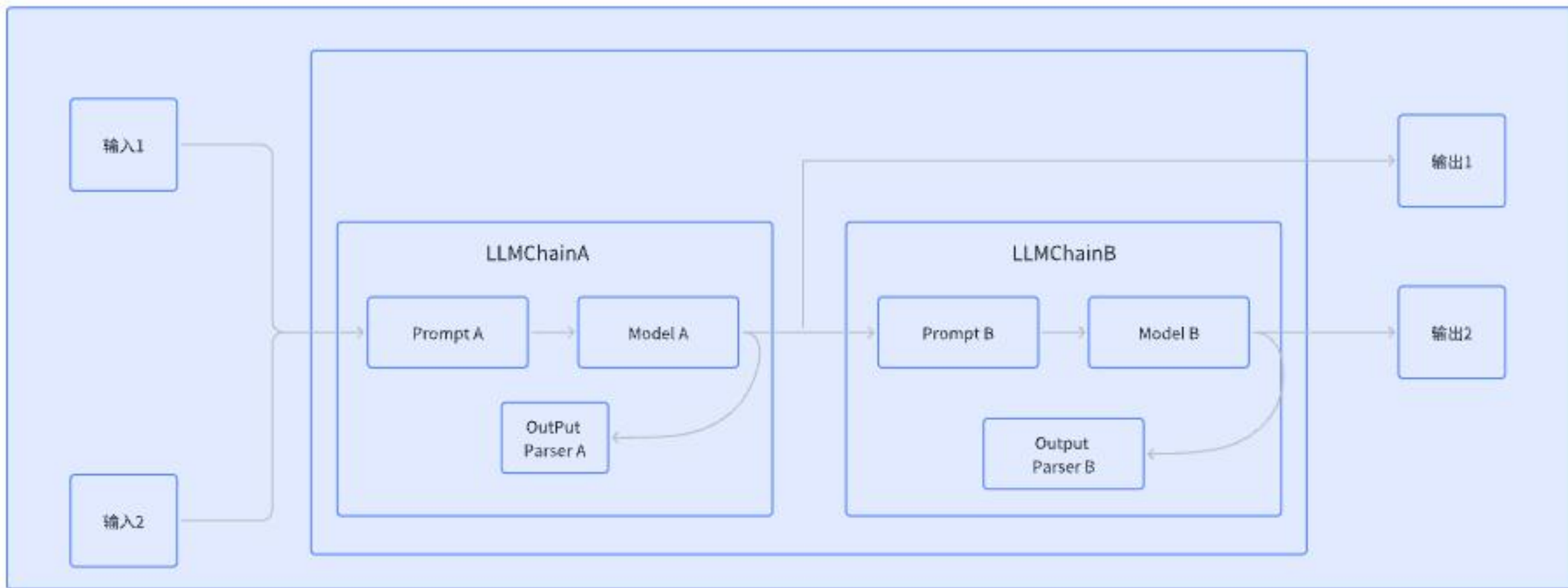# 02、基于LCEL的Chains类型

代码实战

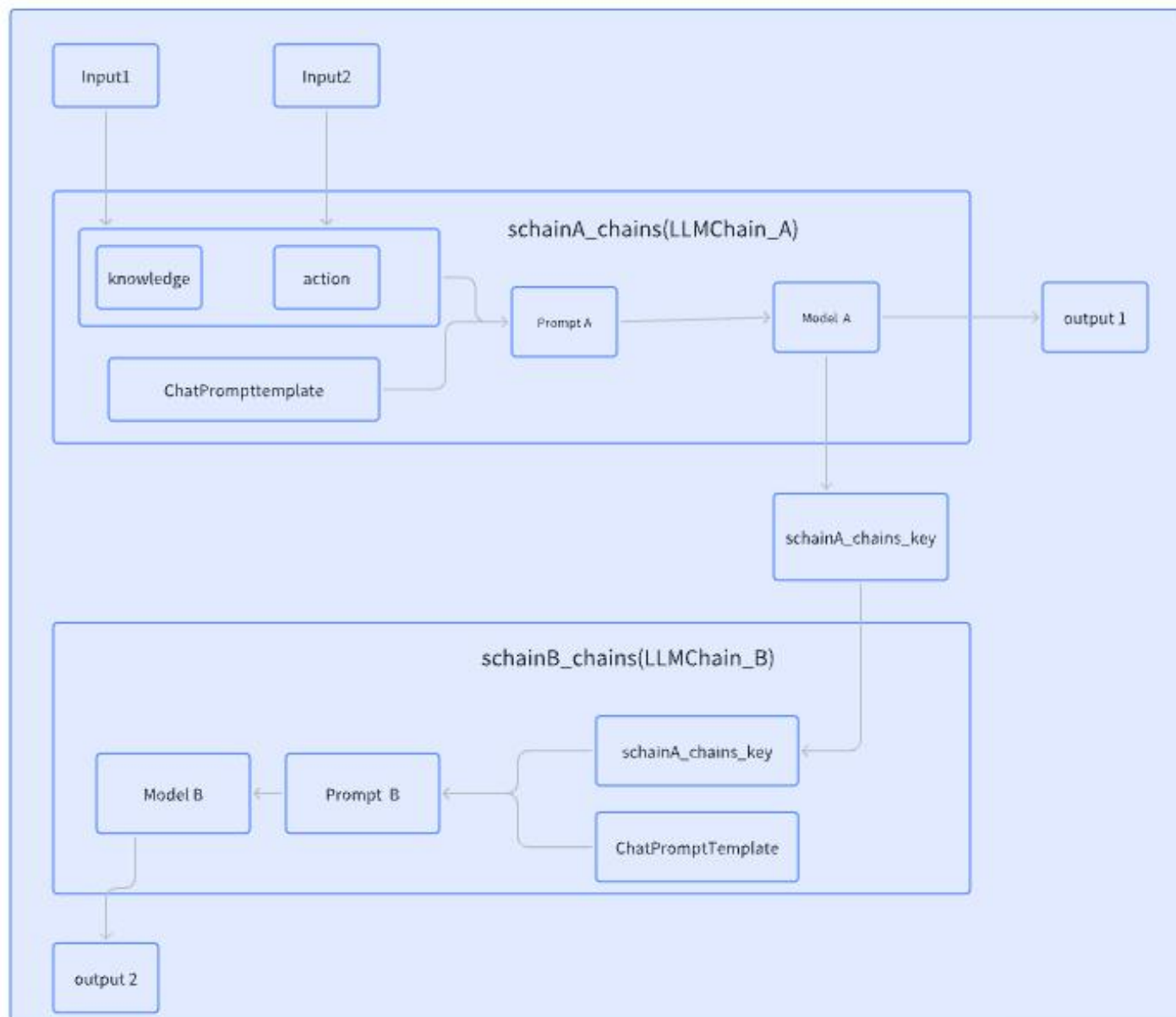**3** 历史的 Chains 类型
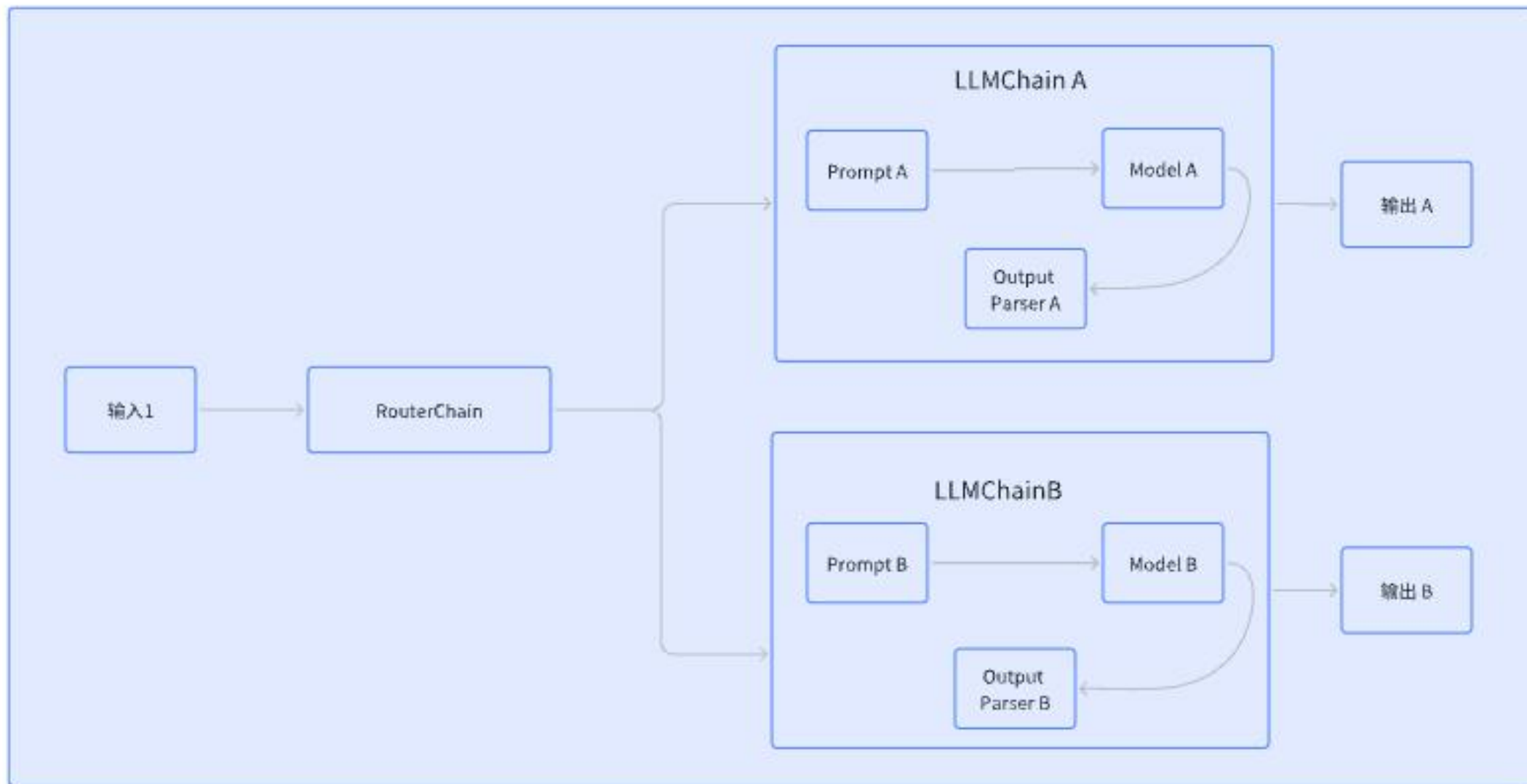
01、SimpleSequentialChain实战
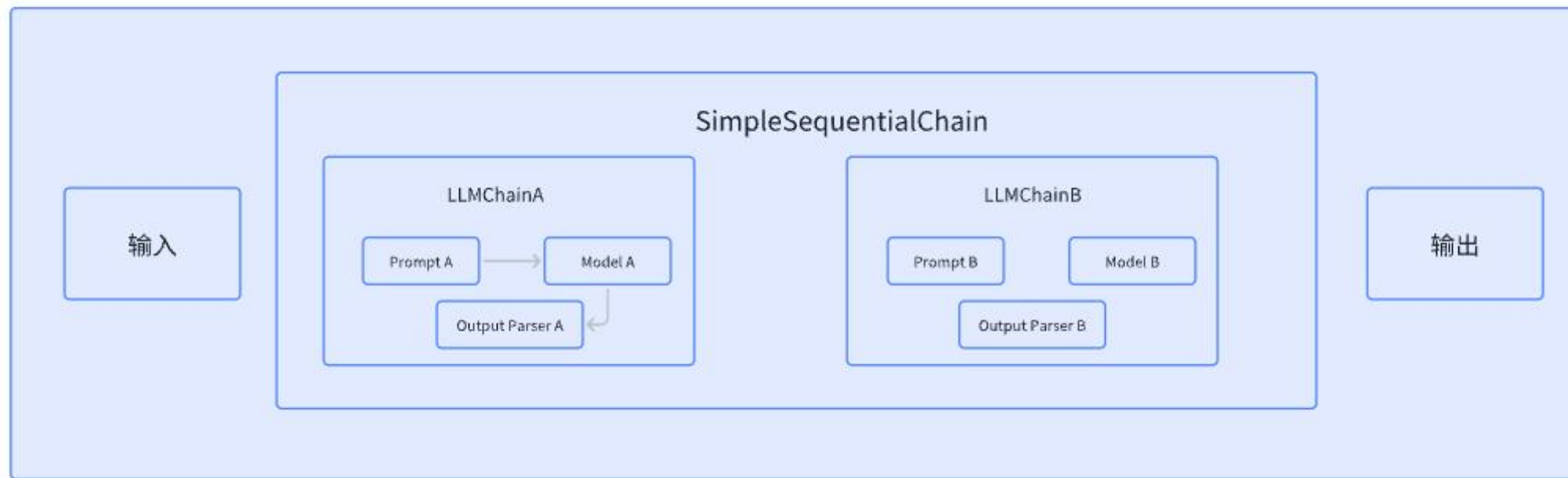
02、SequentialChain-实现思路

03、SequentialChain-落地方案

04、SequentialChain-落地方案

05、RouterChain设计方案

4 **Chains API代码实战**

01、RouterChain

THANK YOU