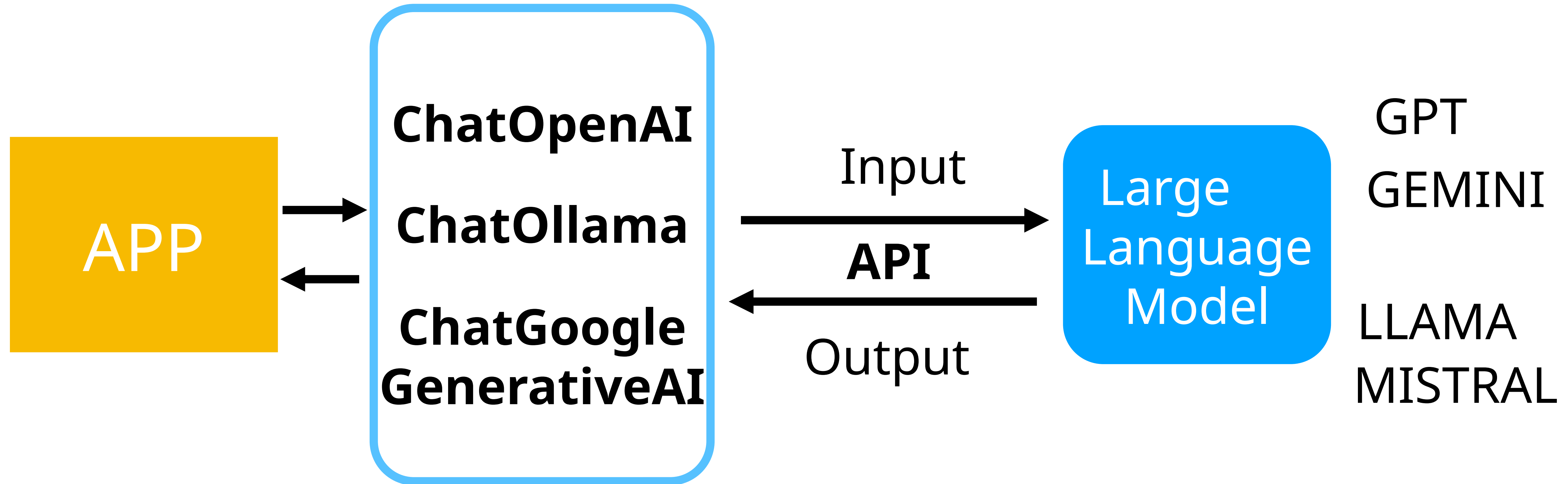
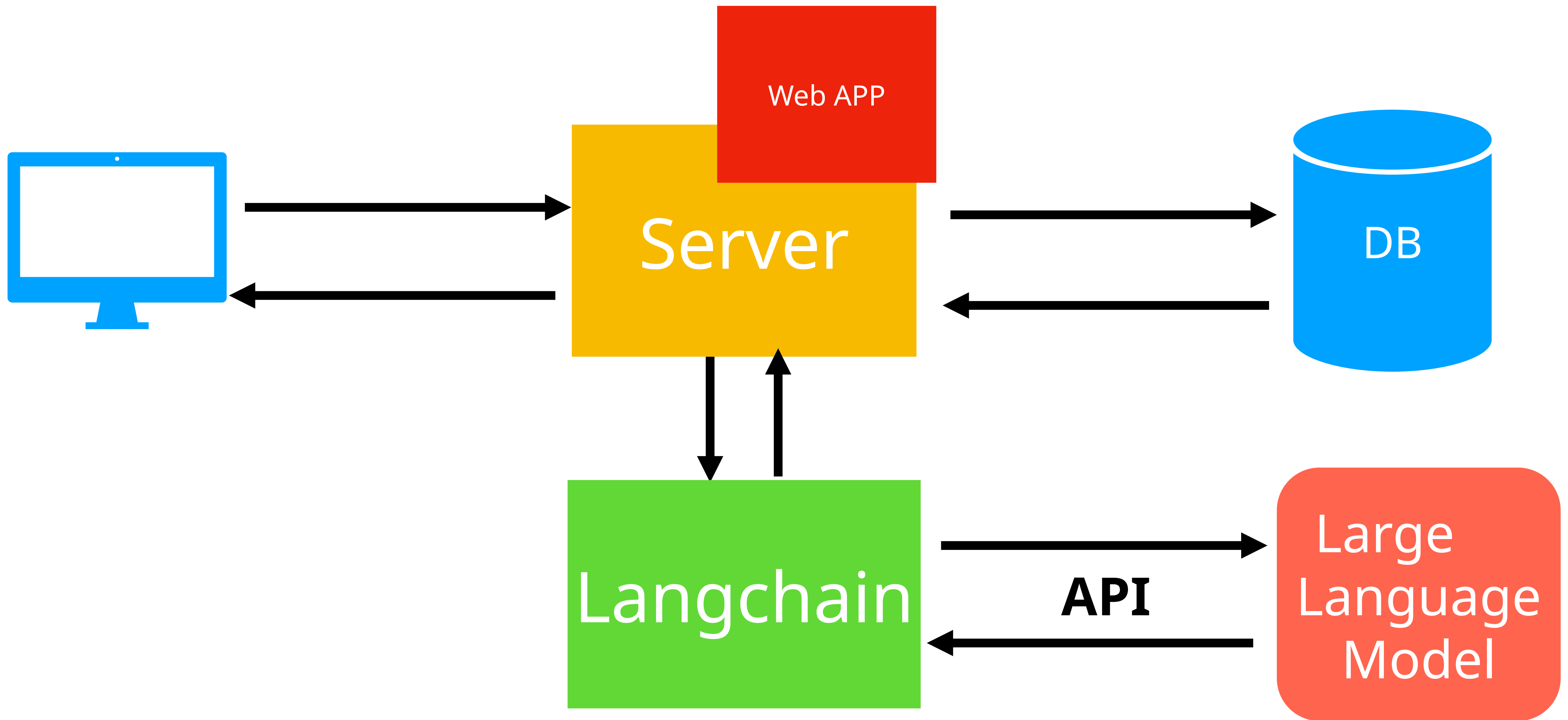


# Langchain





# LLM



Large  
Language  
Model

# Prompt

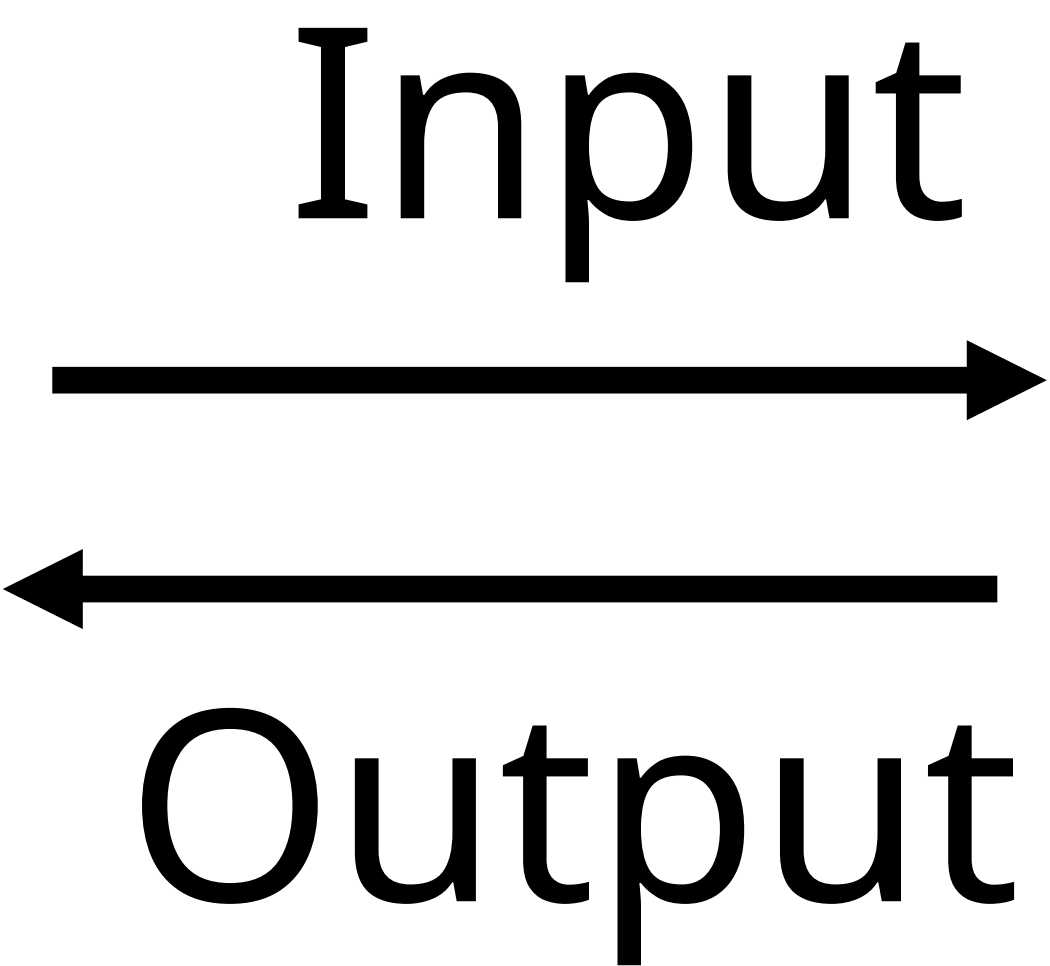
What is Machine Learning

Questions

Marketing Campaigns

Summarising Text

Assistance



Large  
Language  
Model

GPT  
GEMINI

LLAMA  
MISTRAL

Images   Videos   Multi Modal

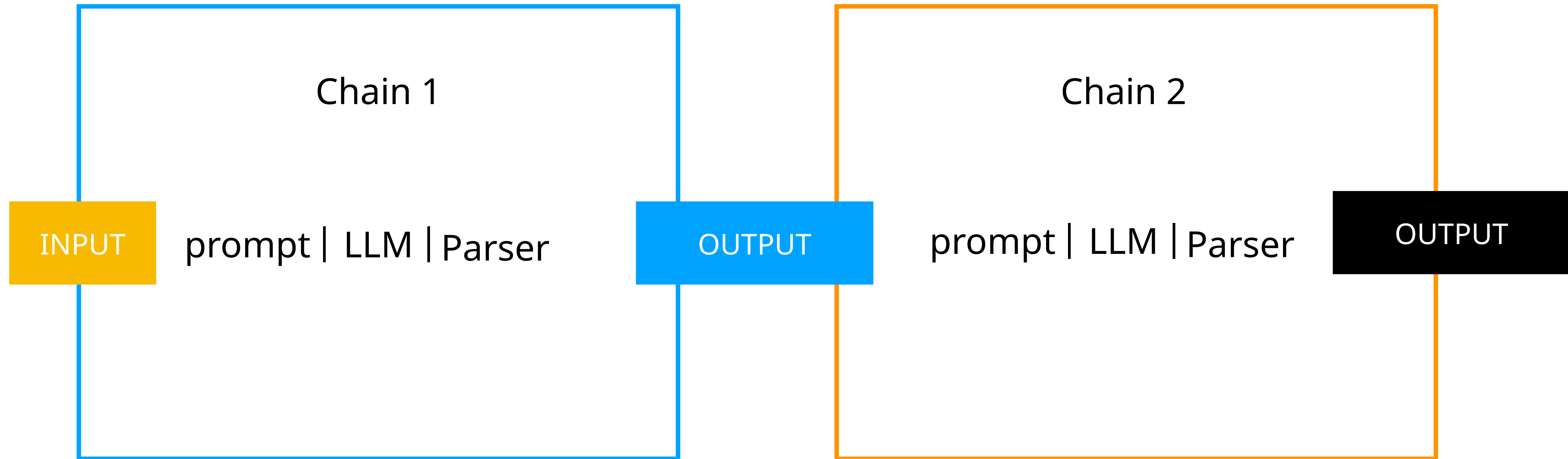
# Streamlit

# PromptTemplate

# Chains

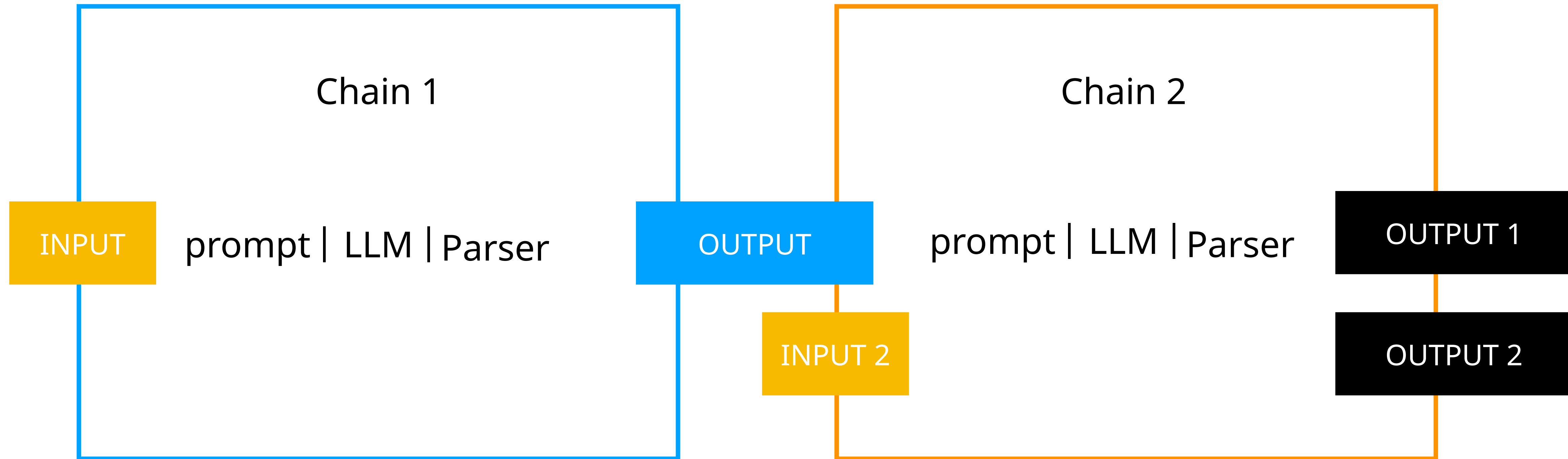
prompt | LLM

# Simple Sequential Chain





# Sequential Chain



smith.langchain.com/o/ac724d96-e84c-42d7-955b-983b2bee5553/projects/p/9f079bcd-cdab-4273-ab56-9c248d994287?timeModel=%7B"duration"%3A"7d"%7D&peek=019c4d00-79eb-7a00-990a-bb2698fbf159&peeked\_trace...

ImpUnoTutsOthersmyDesk | Morg...AzureRS | Udemy Bu...AWS | vinitGoogle Promp...genAI RoadmapAll Bookmark

LangSmith

Application

All applications

Home

Tracing2

Monitoring

Datasets & Experiments

Annotation Queues

Prompts

Playground

Studio

Deployments

Personal / Tracing / langchaindemo

langchaindemo

Runs

Threads

Events

1 filter

Last 7 days

Traces

LLM Calls

Errors

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Name	Input
<input type="checkbox"/>	<input checked="" type="checkbox"/>	LangGraph	user: who is the
<input type="checkbox"/>	<input checked="" type="checkbox"/>	LangGraph	user: who is ga

TRACE

Waterfall

LangGraph41.51s9.7K / \$0.0016

model3.76s673

ChatOpenAIgpt-5-nano3.75s673

tools1.17s

duckduckgo\_search1.17s

model4.39s1,083

ChatOpenAIgpt-5-nano4.38s1,083

tools4.00s

wikipedia4.00s

model7.87s1,925

ChatOpenAIgpt-5-nano7.85s1,925

tools3.78s

wikipedia3.78s

tools1.11s

duckduckgo\_search1.10s

model

LangGraph

Run

Feedback

Metadata

Input

HUMAN

who is the ceo of salesforce today

Output

MESSAGESmessages11

HUMAN

who is the ceo of salesforce today

AI

THOUGHT: I should verify the current CEO of Salesforce, since leadership can change. I'll search a reliable source for the latest information.  
ACTION: Use a web search to find who is the CEO of Salesforce today.

duckduckgo\_searchcall\_P10PV2bDOUmdCit31GZ6vqwg

query: current CEO of Salesforce 2026

YAML

TOOL

START TIME

02/11/2026, 07:30:02 PM GMT+5

END TIME

02/11/2026, 07:30:44 PM GMT+5

STATUS

Success

TOTAL TOKENS

9,674 tokens / \$0.0015981

LATENCY

41.51s

TYPE

Chain

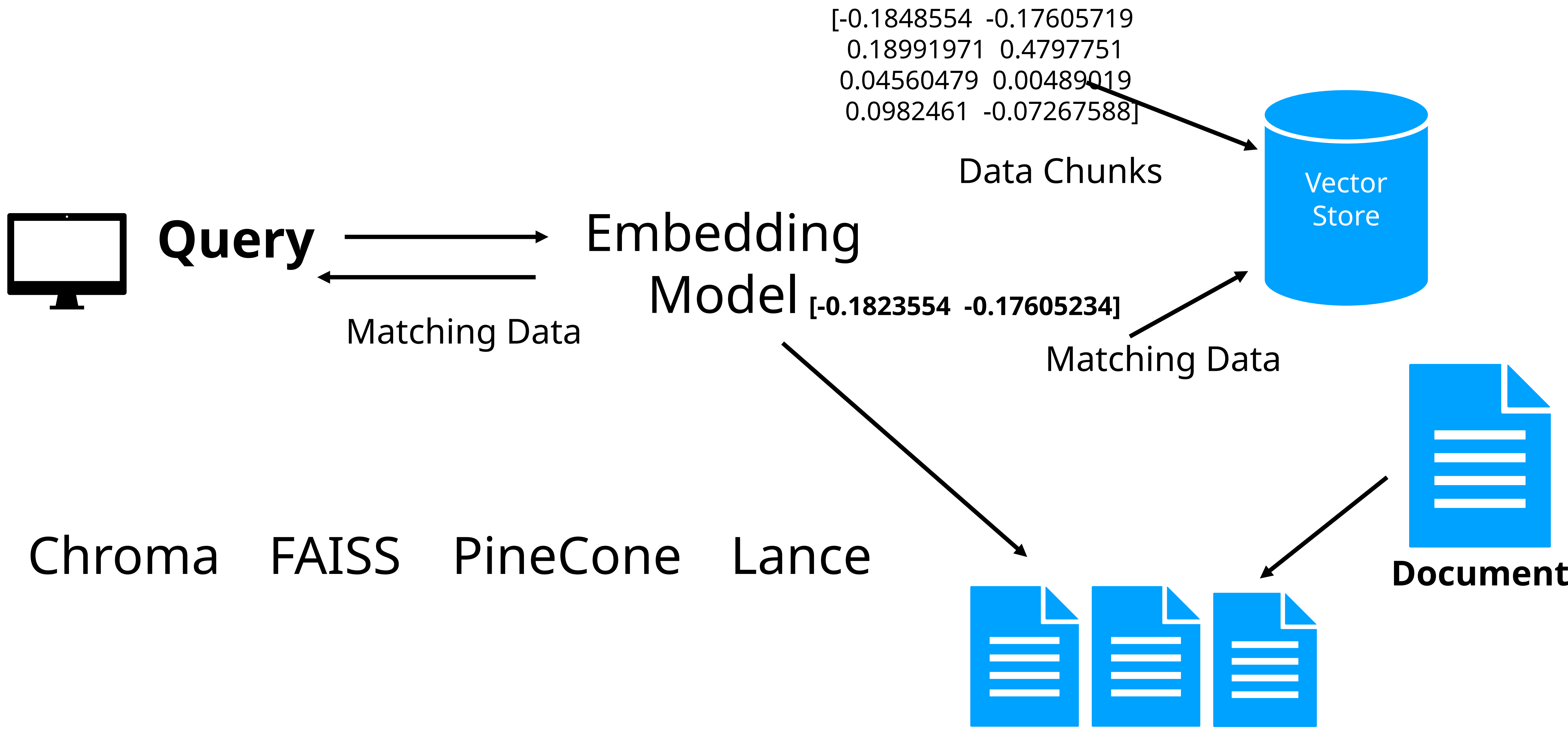
SearchCtrl+K

Personalvinit.bit006@gmail.com

Polly

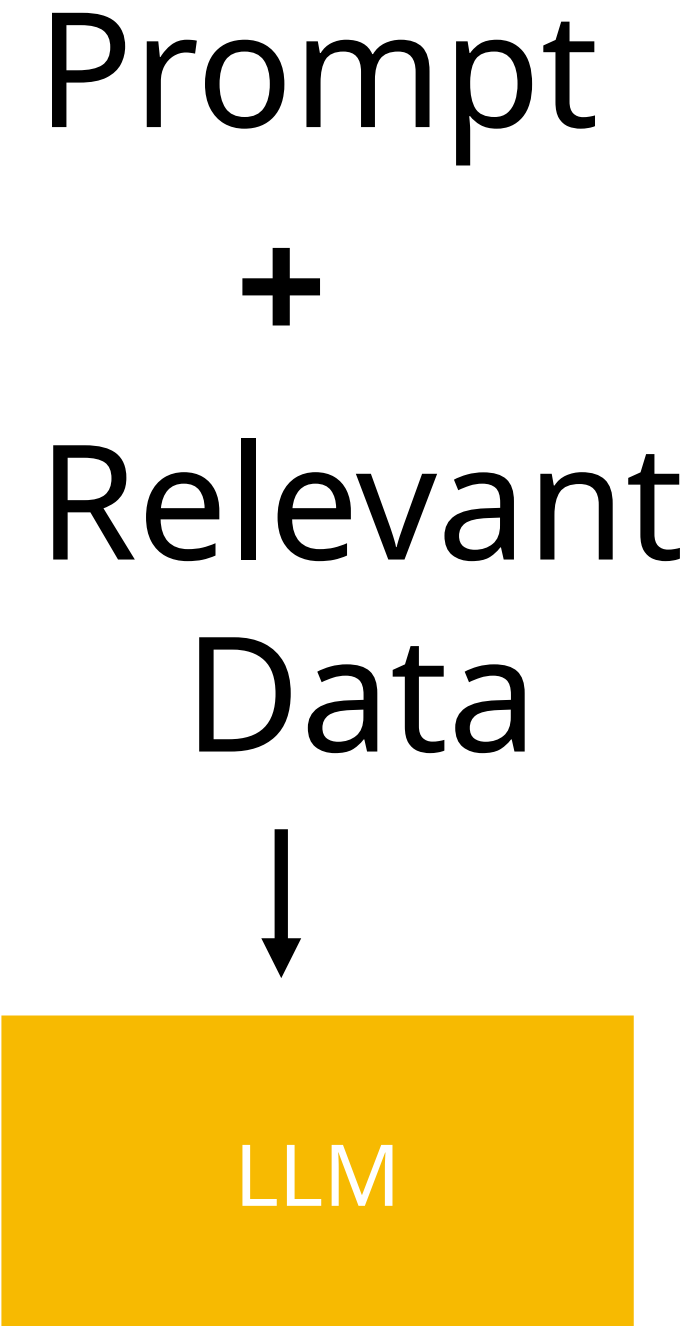
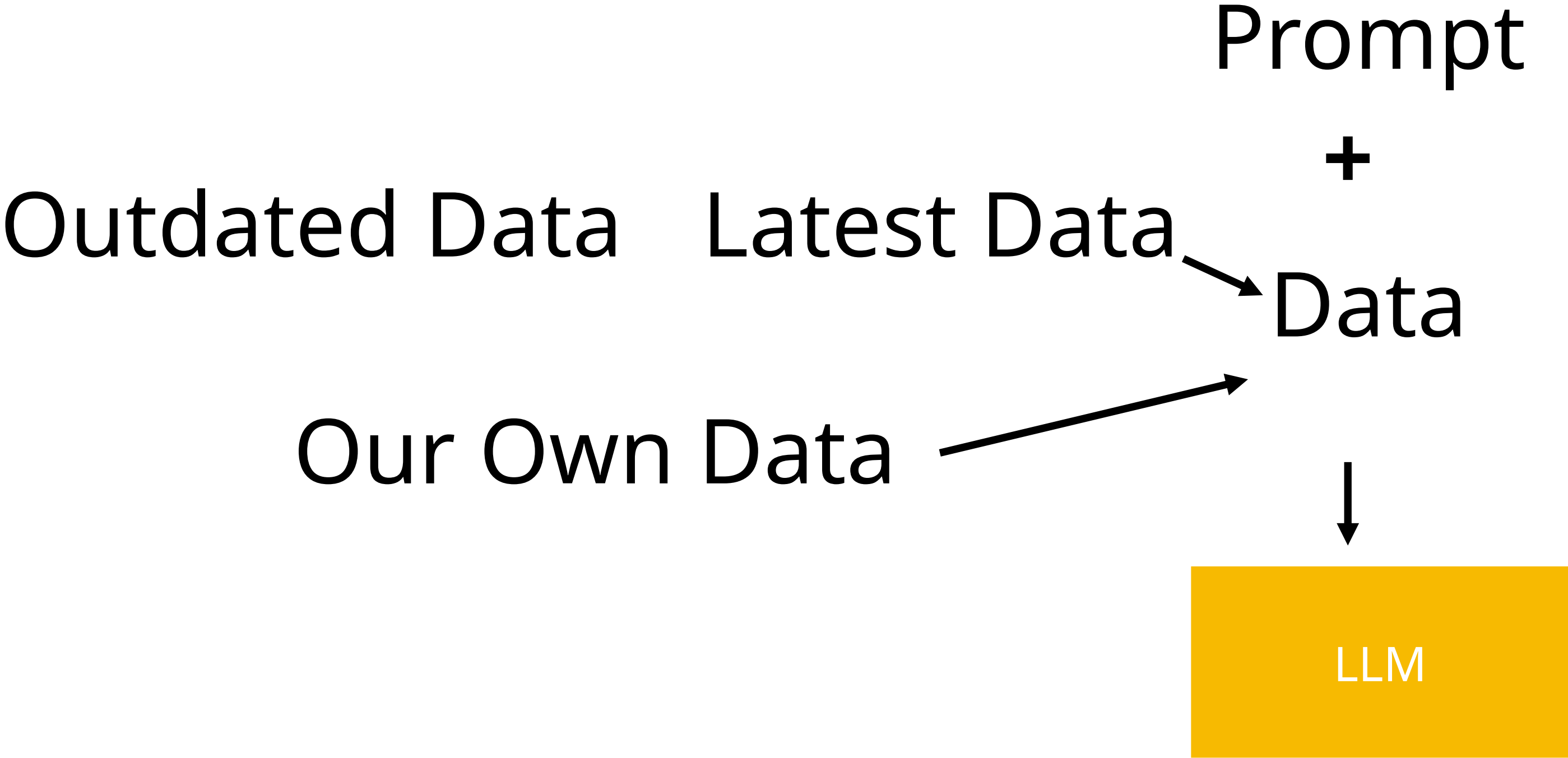
# Chat History

# Using Vector Database



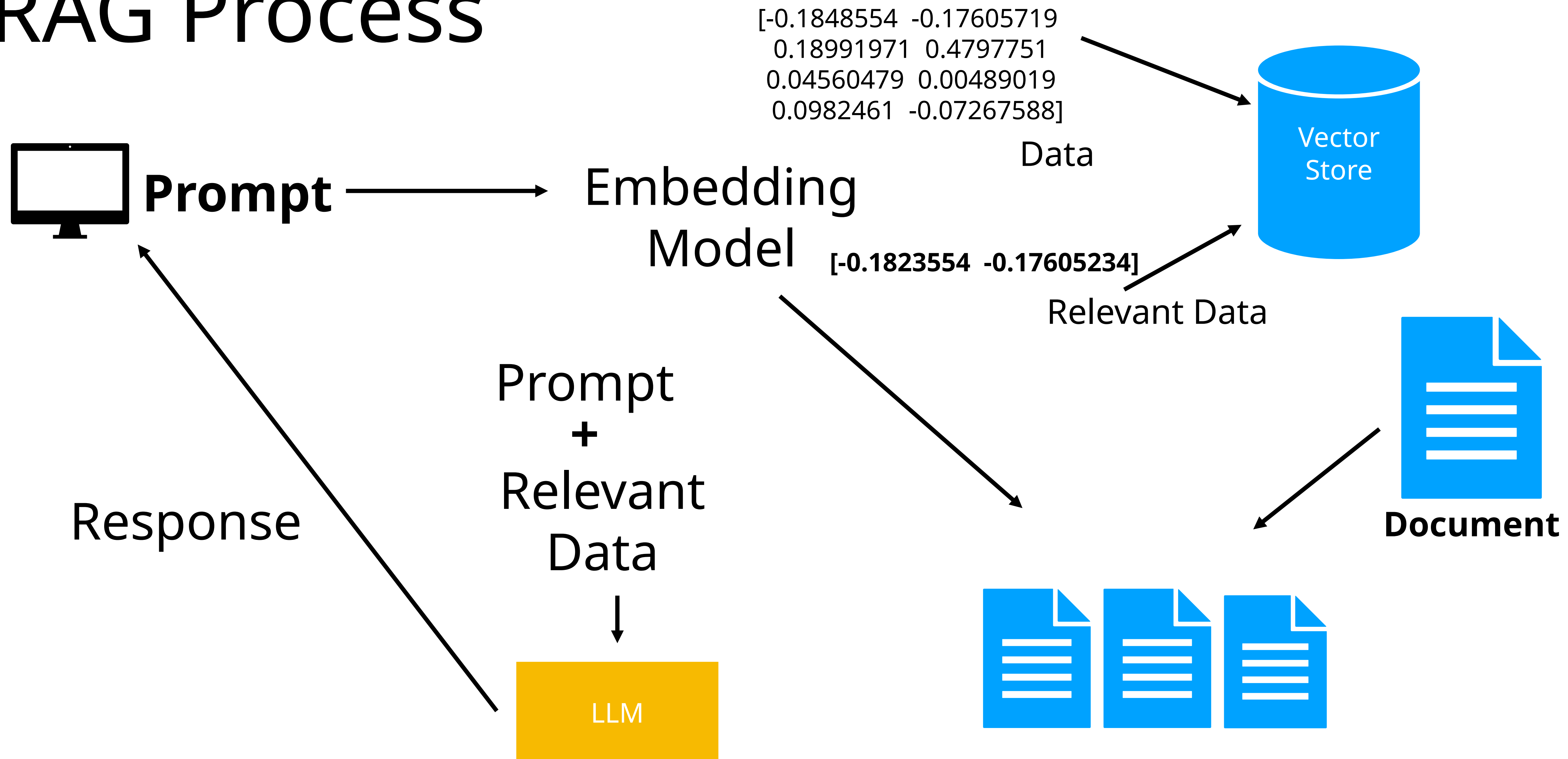
# RAG

# Retrieval Augmented Generation





# RAG Process



# Other LLMs

Google Gemini

Open Source

Llama

3.1 8B

2 7B

Gemma

2B

3B

Mistral

7B

7B

13B

33B

8GB

16GB

32GB



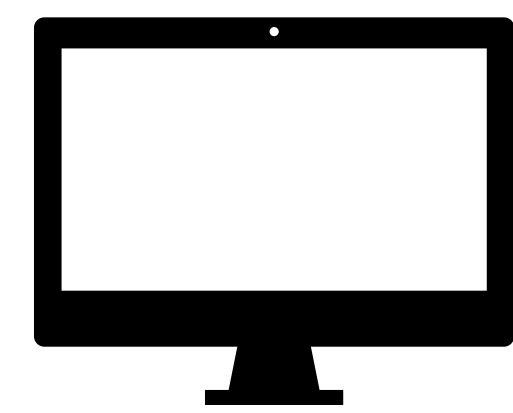
# Deploy

Update the code

requirements.txt

Push to github

Deploy using StreamLit Cloud



User

Input

# Agent

Tools

Prompt

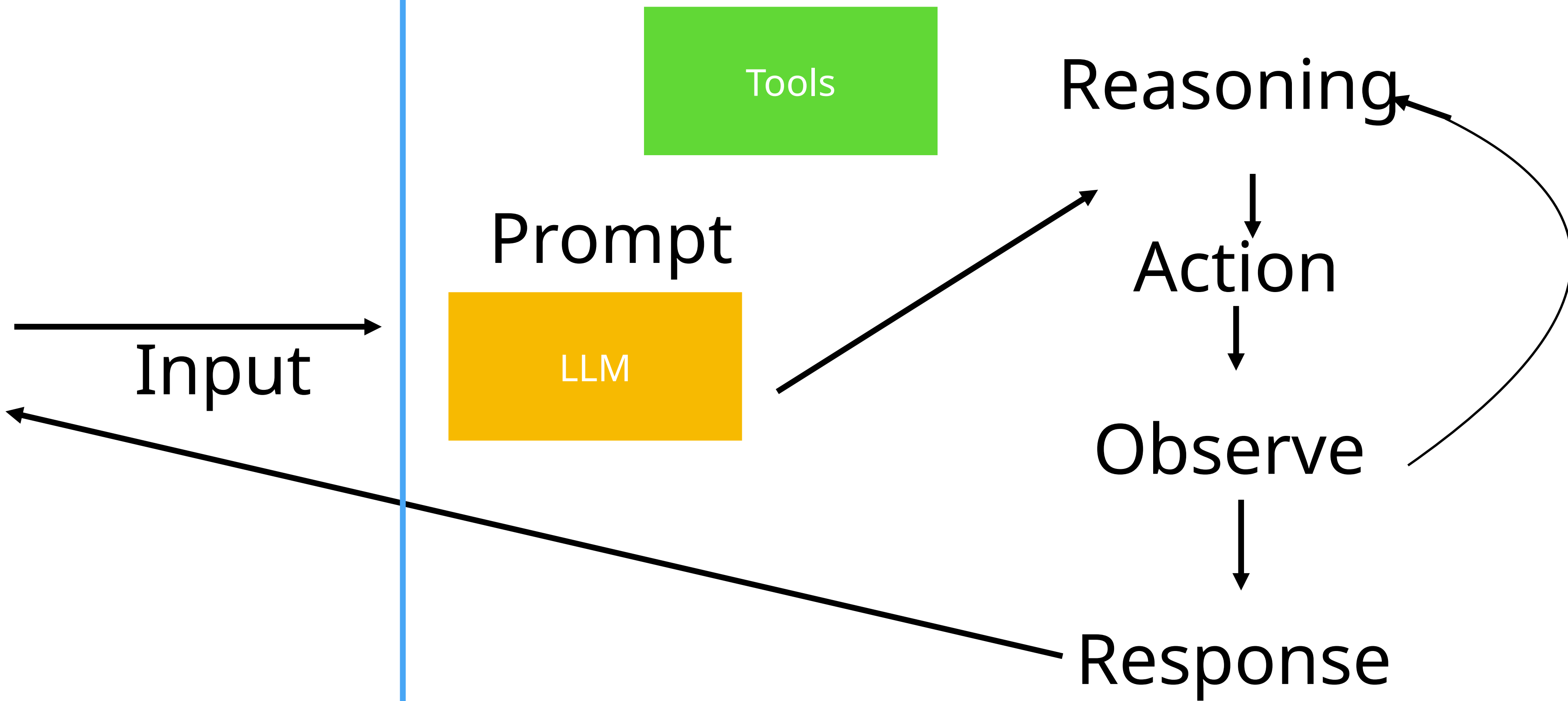
LLM

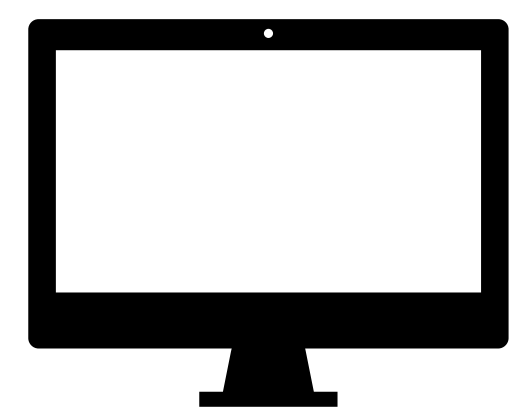
Reasoning

Action

Observe

Response





User

Task

# Agent

Prompt

LLM

Tools

Search  
Wikipedia

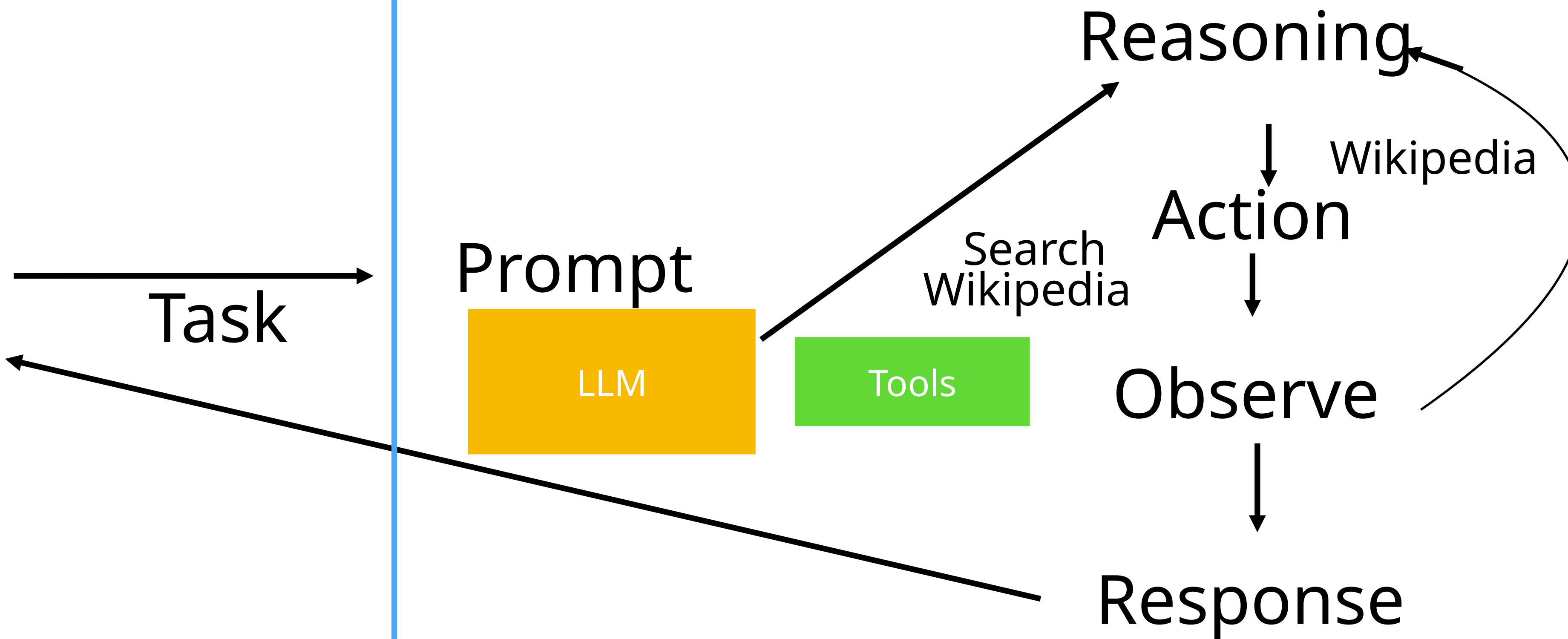
Reasoning

Action

Observe

Response

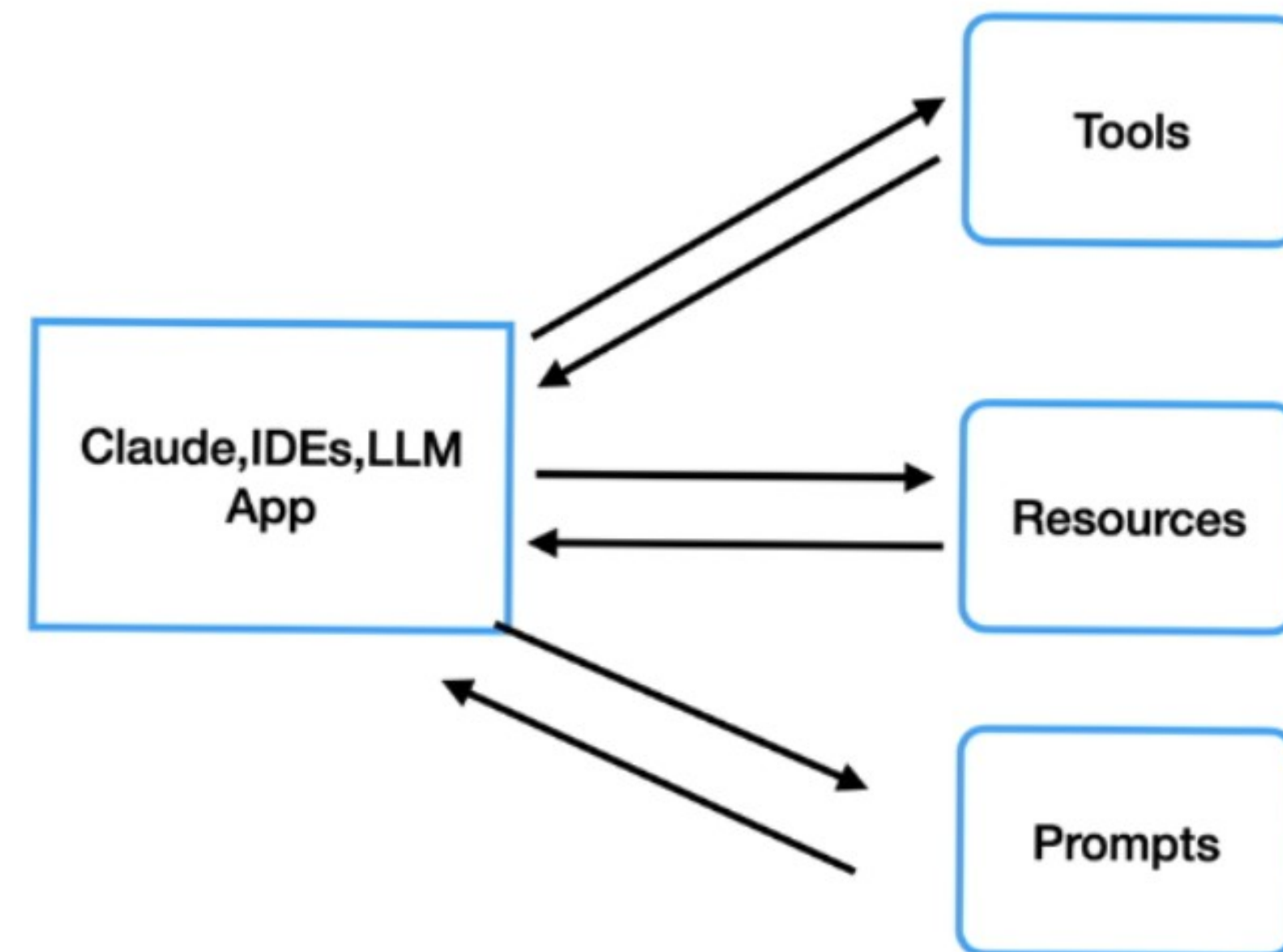
Wikipedia



## Why MCP

- Duplication of tools, resources and prompts per host or agents.

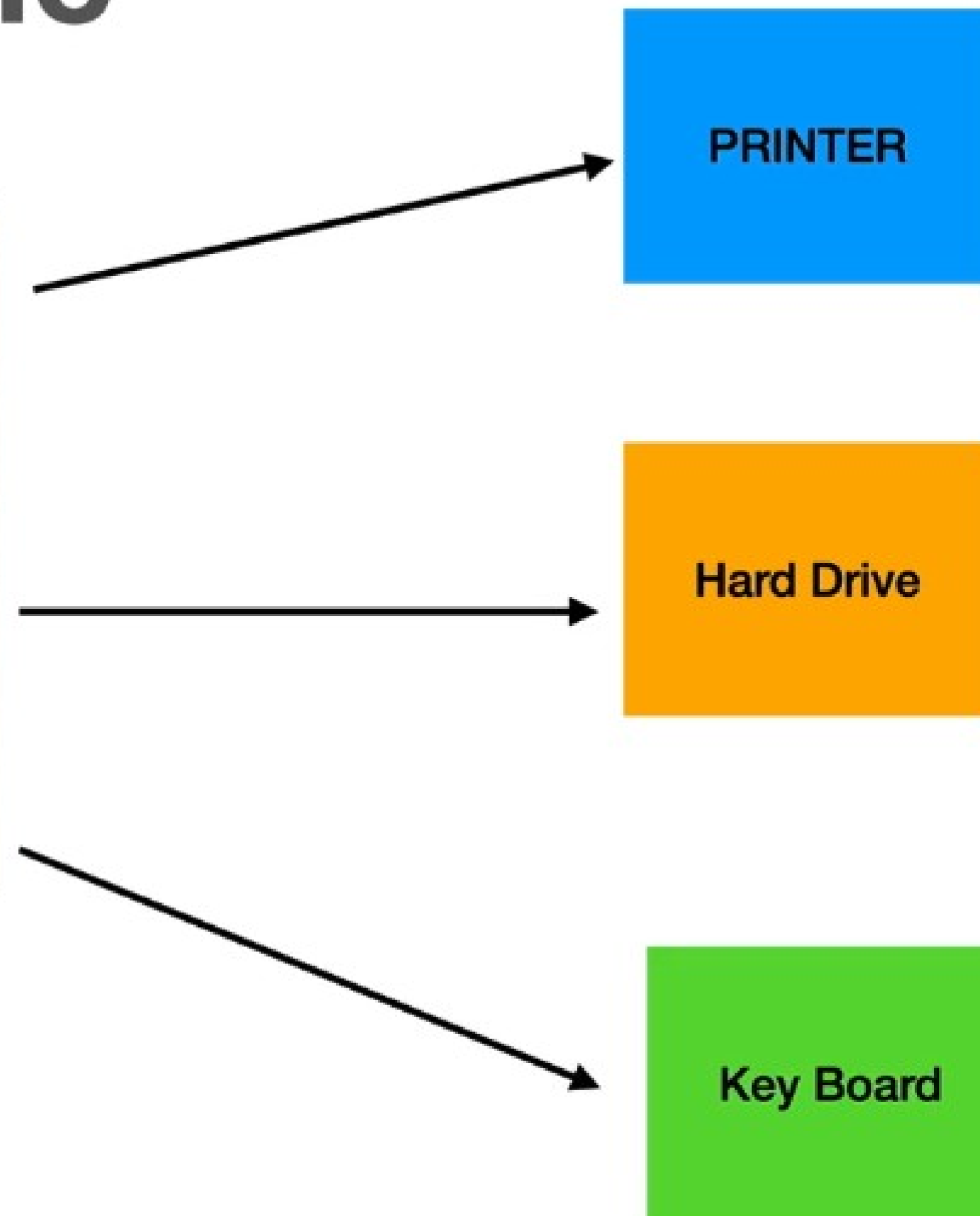
# MCP



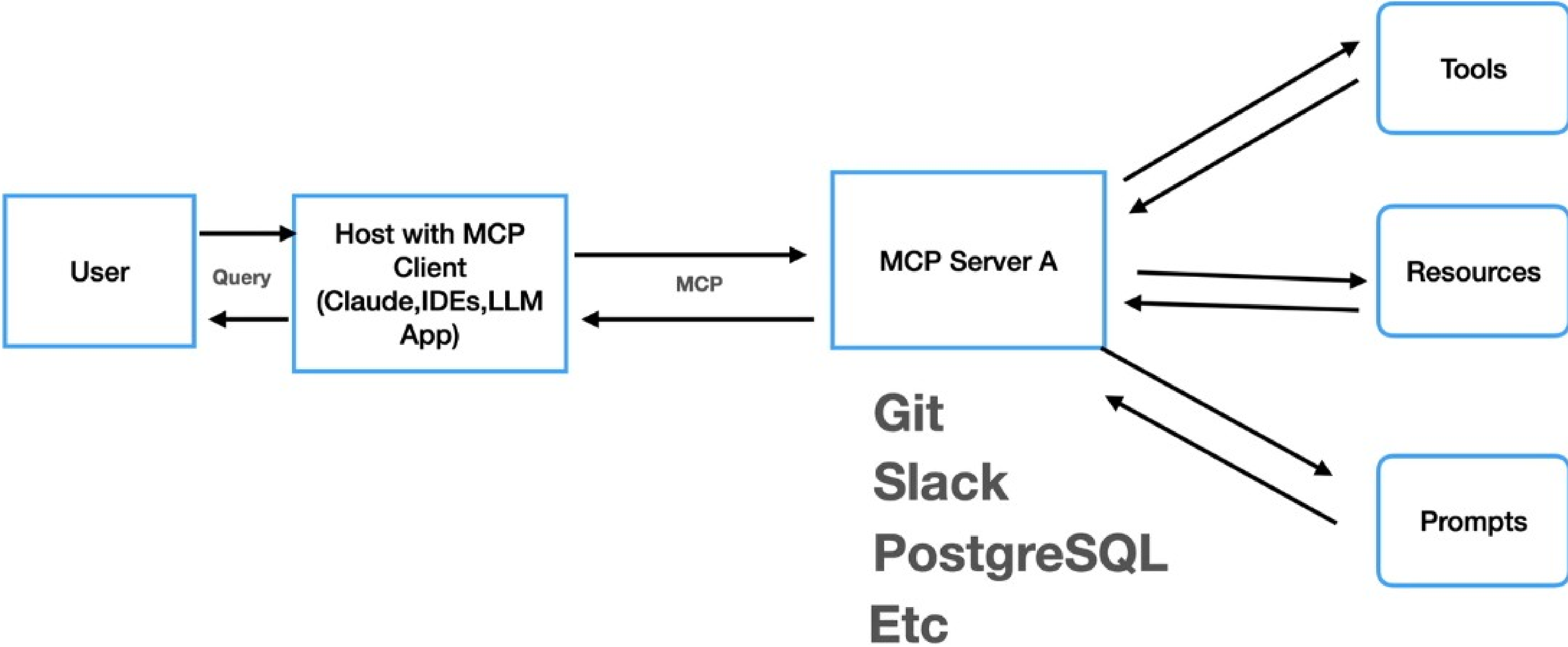
Anthropic introduced MCP

# MCP

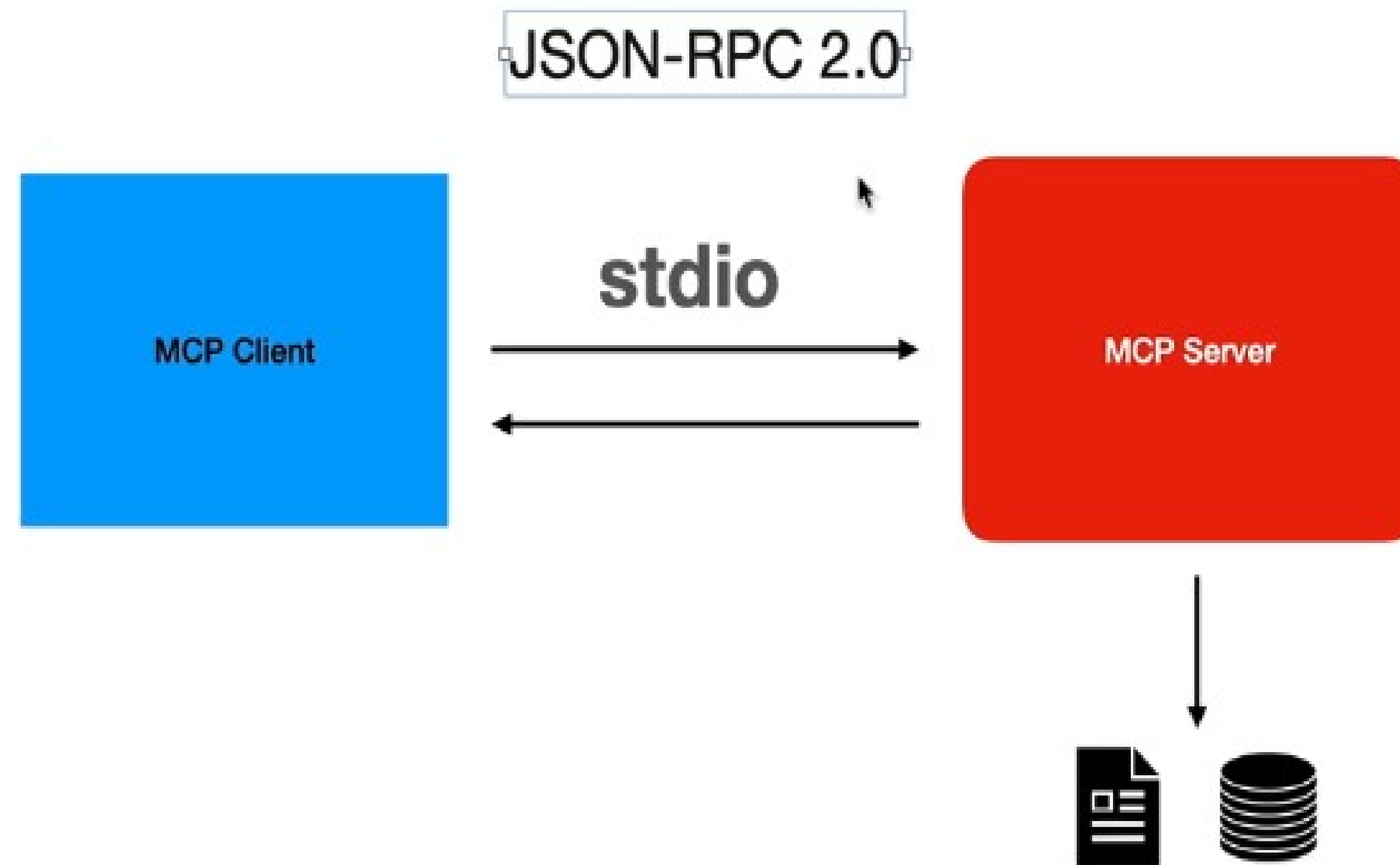
# Anthropic



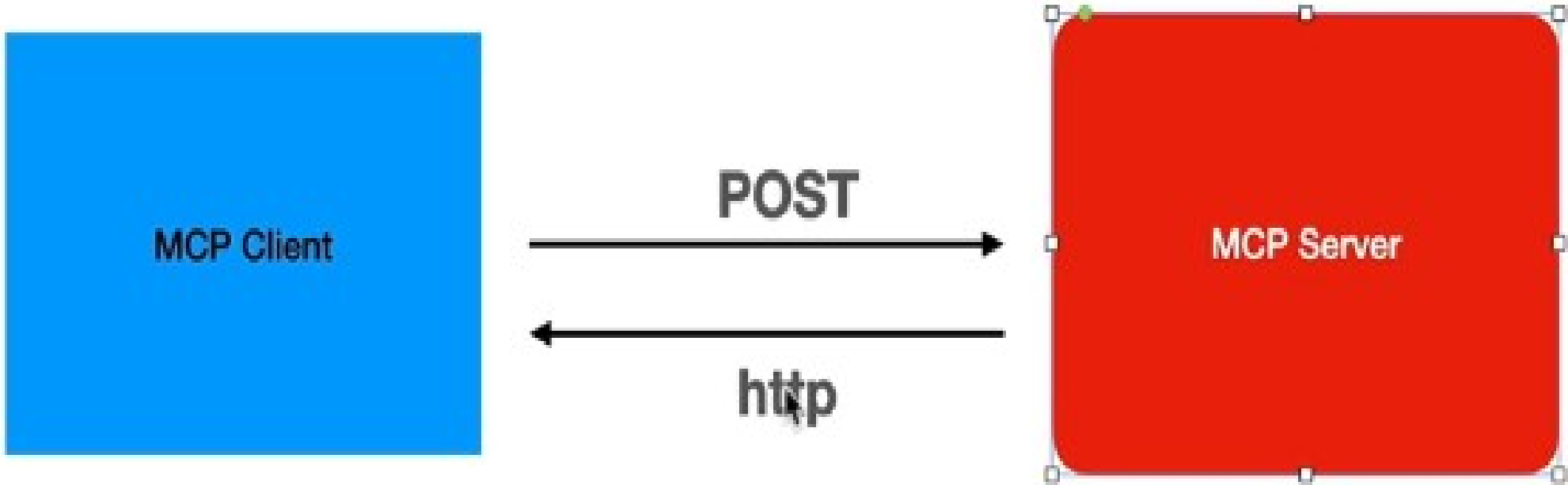
# MCP



# Transport



# Streamable HTTP



WebSocket

SSE