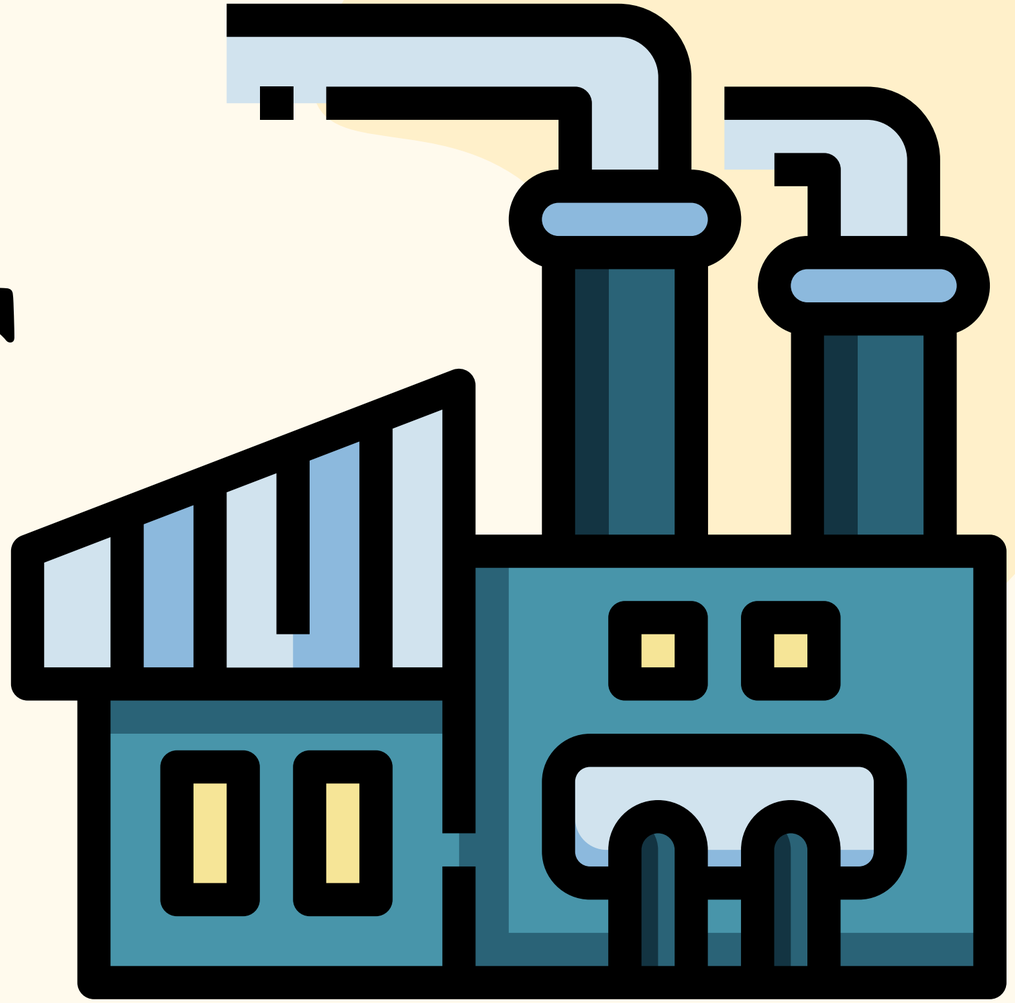
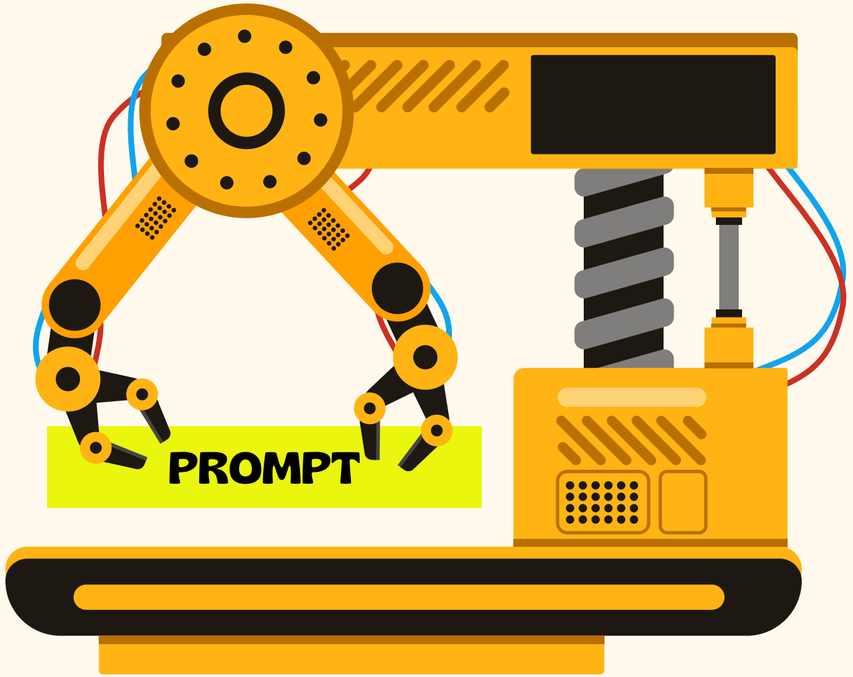
LANGCHAIN THE PROMPT FACTORY

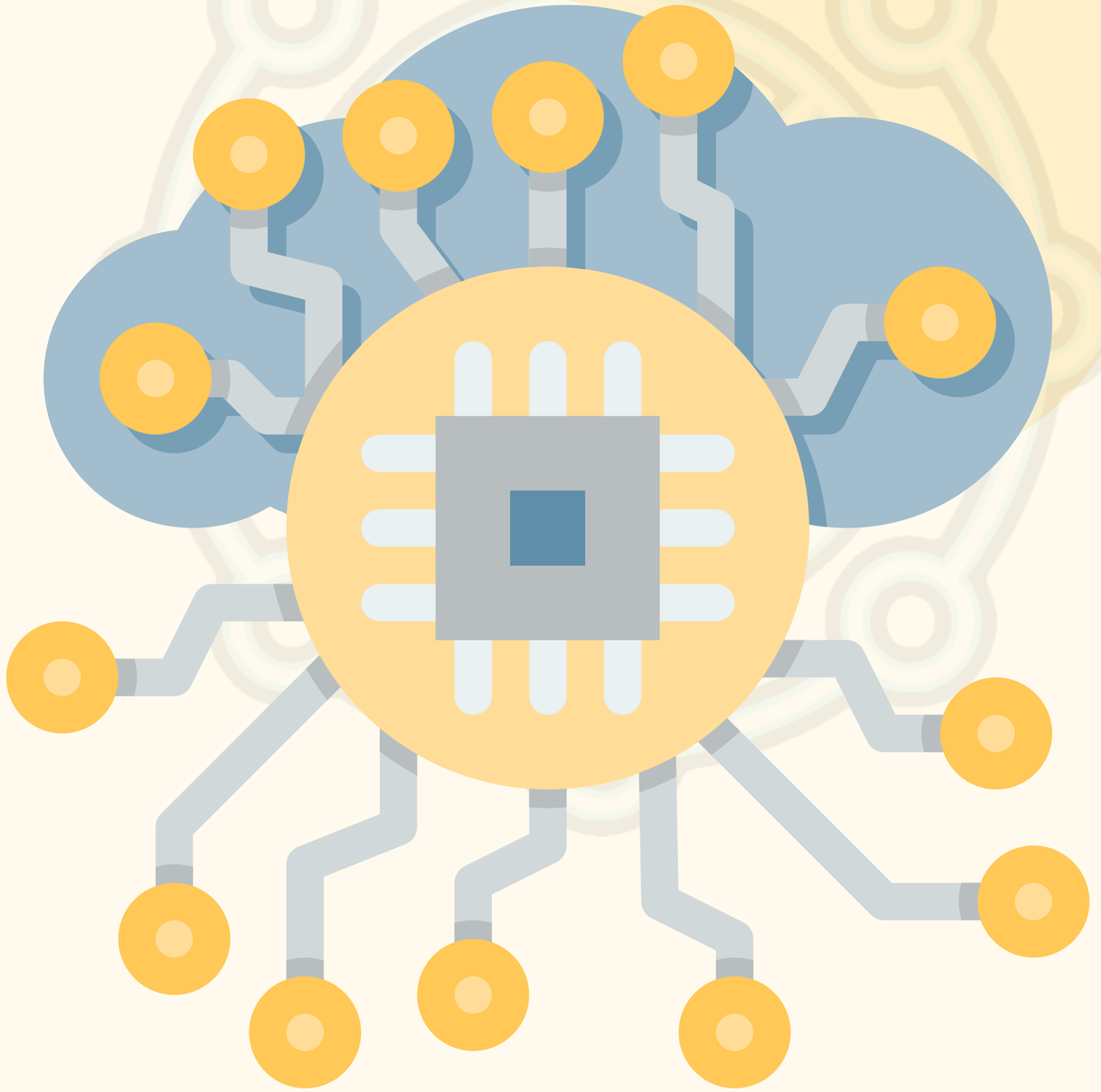




MASS PRODUCE PROMPTS

ITS BIGGER THAN PROMPTS

LANGCHAIN PYTHON LIBRARY CONNECTS THE OUR WORLD WITH LLM WORLD.



HOW LANGCHAIN WORKS

LANGCHAIN PROVIDES THE PYTHON CLASSES AND FUNCTIONS

THAT INTERACT WITH

1. LANGUAGE MODELS FROM 28 PROVIDERS OR MORE
2. CONNECTS WITH SEARCH + WIKI + WOLFRAM + INTERNET
3. CREATES INTERFACE TO QUERY THE TEXT / FILE DATA
4. CONNECTS WITH VECTOR DATABASES TO STORE
5. CONNECTS WITH PYTHON + BASH + SQL ENVIRONMENT

PROMPTS

UTILITIES

CHAINS

AGENTS

CREATING CHAINS ON WHICH THE LLM WILL QUERY & REPLY

HTTPS://GITHUB.COM/INSIGHTBUILDER

IT STARTS WITH PROMPT

INSTALL LANGCHAIN

PIP INSTALL LANGCHAIN[ALL]

DATA LOADERS & PARSERS

CACHING THE MODEL

PROMPT WITH OUTPUT PARSERS

PROMPT TEMPLATE

MANUAL PROMPT

UTLITIES / TOOLS

AGENTS

LANGUAGE MODELS

CHAINS

HTTPS://GITHUB.COM/INSIGHTBUILDER

IT STARTS WITH LLM

PROMPTS

Custom Prompt Template: How to create and use a custom PromptTemplate
Custom Example Selector: How to create and use a custom ExampleSelector
Few Shot Prompt Templates: How to include examples in the prompt.
Example Selectors: How to use different types of example selectors.
Prompt Serialization, Few Shot Prompt Examples,
Output parsers Template:

LLMS

OpenAI, Cohere, AI21 ,Huggingface Hub , Azure OpenAI, Manifest,
Goose AI , Writer, Banana, Modal .,StochasticAI,
Cerebrium,Petals,Forefront AI,PromptLayer,Anthropic, DeepInfra,
Self-Hosted Models (via Runhouse)

PRIMITIVES AND CHAINS

DOCUMENT LOADER

28 different document loaders that cover Files, Directories, PDFs, Web Base, iFixit, cloud drives, APIs, Emails, Word Documents, AWS and GCP Directories, Youtube, and MS Word and Powerpoint

UTILS

Python REPL

Bash

Requests Wrapper

Google Search

SerpAPI

Searx Search

VECTOR STORES

Chroma
AtlasDB
DeepLake
FAISS
Elastic Search
Milvus
Pinecone
Qdrant
Weaviate

There are LLMChain, SequentialChain & Transformation Chain classes too

UTILS

Text Splitters
VectorStores
Embeddings
HyDE: Hypothetical Document Embeddings,

CHAINS

load_summarize
load_qa
ChatVectorDB
load_qa_with_sources
GraphQA Chain
Mapreduce & Re - Rank Refine

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UTILITY CHAINS : GAME CHANGER

LMMATH

LINKS USED: PYTHON REPL, LLMCHAIN

PAL

LINKS USED: PYTHON REPL, LLMCHAIN

SQLDATABASE CHAIN

LINKS USED: SQLDATABASE, LLMCHAIN

API CHAIN

LINKS USED: LLMCHAIN, REQUESTS

LLMBASH CHAIN

LINKS USED: BASHPROCESS, LLMCHAIN

LLMCHECKER CHAIN

LINKS USED: LLMCHAIN

LLMREQUESTS CHAIN

LINKS USED: REQUESTS, LLMCHAIN

MODERATION CHAIN

LINKS USED: LLMCHAIN, MODERATIONCHAIN

AGENTS : DECISION MAKERS

AGENTS

MRKL & MRKL CHAT

TOOLS USED: SEARCH, SQLDATABASECHAIN, LLMMATHCHAIN

AGENT USED: ZERO-SHOT-REACT-DESCRIPTION

SELF-ASK-WITH-SEARCH

TOOLS USED: SEARCH

AGENT USED: SELF-ASK-WITH-SEARCH

REACT

TOOLS USED: WIKIPEDIA DOCSTORE

AGENT USED: REACT-DOCSTORE

AGENT TOOLKITS

- SQLDATABASE AGENT: SQL DB
- JSON AGENT: JSON
- OPENAPI AGENT: OPENAPI ENDPOINT
- VECTORSTORE AGENT: VECTORSTORES
- PYTHON AGENT: EXECUTE PYTHON CODE
- PANDAS DATAFRAME AGENT: QA WITH PANDAS
- CSV AGENT: CSV FILE.

LLM : WITH MEMORY

BUFFER: JUST KEEPS PREVIOUS MESSAGES IN A BUFFER.

BUFFER WINDOW: KEEPS PREVIOUS MESSAGES IN A BUFFER BUT ONLY USES THE PREVIOUS K OF THEM.

SUMMARY: A TYPE OF MEMORY THAT SUMMARIZES PREVIOUS MESSAGES.

SUMMARY BUFFER: KEEPS A BUFFER OF MESSAGES UP TO A POINT, AND THEN SUMMARIZES THEM.

ENTITY MEMORY: A TYPE OF MEMORY THAT ORGANIZES INFORMATION BY ENTITY.

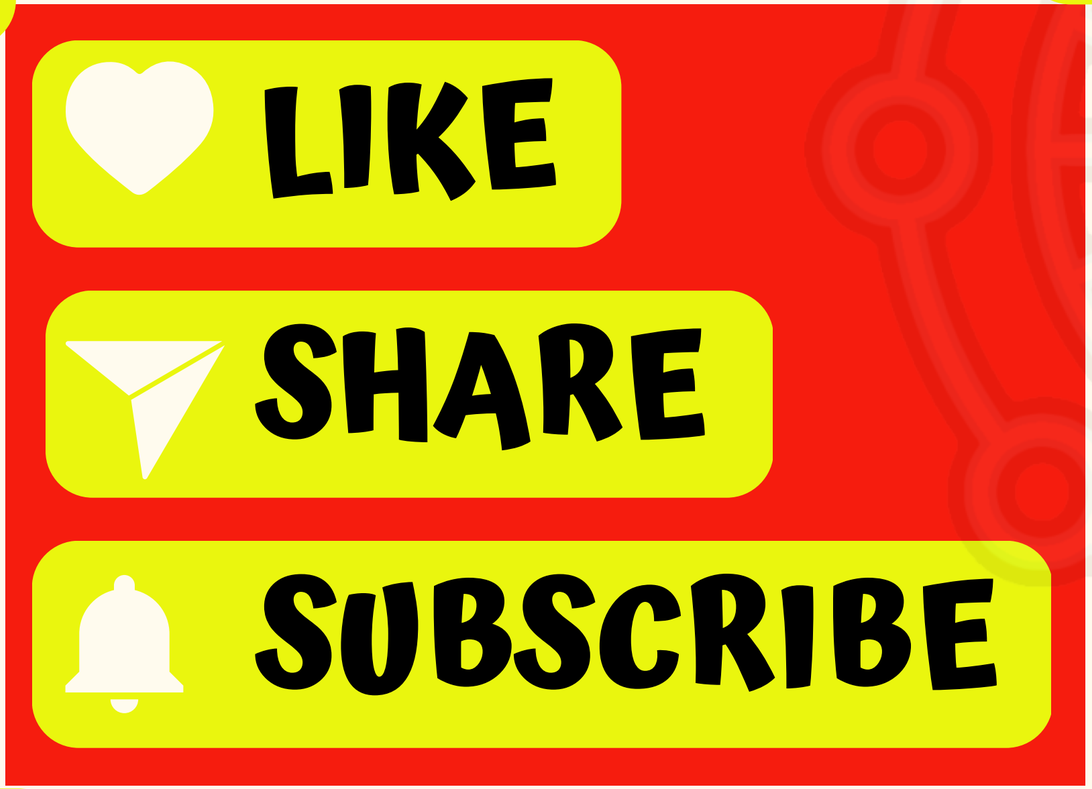
KNOWLEDGE GRAPH MEMORY: A TYPE OF MEMORY THAT EXTRACTS KNOWLEDGE GRAPH

EXAMPLE TIME
ON
GOOGLE COLAB

THANKS FOR WATCHING

PRACTICE

PRACTICE



PRACTICE

PRACTICE

HTTPS://GITHUB.COM/INSIGHTBUILDER