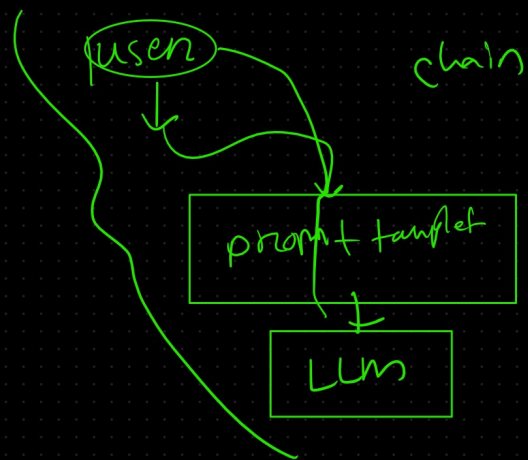
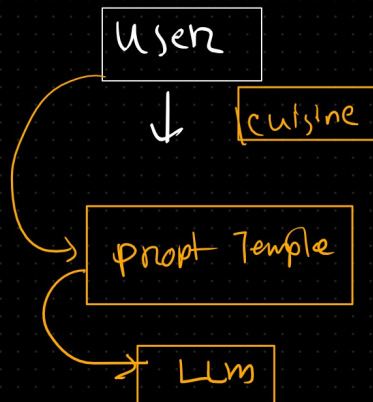


Agenda: LangChain

- ✓ ① Installation
- ✓ ② how to load LLMs with LangChain
- ✓ ③ prompt Template
- ✓ ④ Chains
- ✓ ⑤ Agents and Tools
- ✓ ⑥ memory
- ✓ ⑦ Document loader

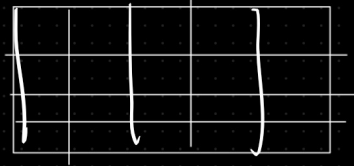
chain



Vector Database

- ① MySQL
 - ② MongoDB
 - ③ Cassandra
 - ④ PostgreSQL
- Relational DB

MySQL



[king] [is] [very] [powerful]

Features	king	Queen	man	women	monkey
Gender	1	0	1	0	1
Wealth	1	1	0.5	0.3	0
Power	1	0.7	0.5	0.3	0
Weight	0.8	0.5	0.7	0.5	0.3
Speak	1	1	1	1	0

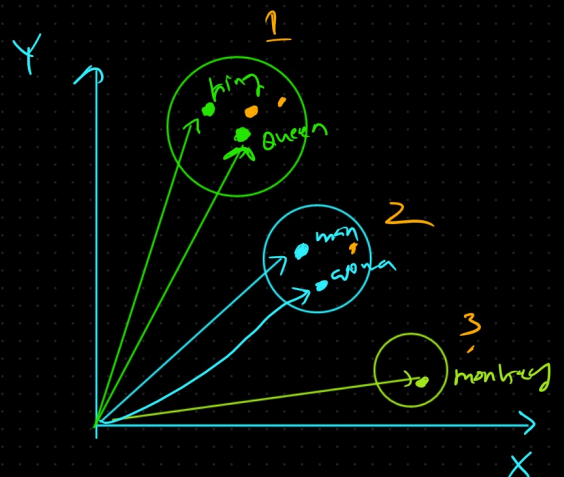
$$\text{king} = [1, 1, 1, 0.8, 1]$$

$$\text{Queen} = [0, 1, 0.7, 0.5, 1]$$

$$\text{man} = [1, 0.3, 0.3, 0.7, 1]$$

$$\text{women} = [0, 0.3, 0.3, 0.5, 1]$$

$$\text{monkey} = [1, 0, 0, 0.3, 0]$$



princess

School boy

dog

Knowledge base

DB

Chatgpt

Human

Automatic

LLMs

4 relevant

DB

Tell me a story about Harry Potter

txt → language

Data

Embedding model

Vector Embedding

1000, 200

OpenAI Embedding

300 300, 40 40 50

GPT 3.5 Turbo → 4096

4096 < 500

Chunk_size = 500

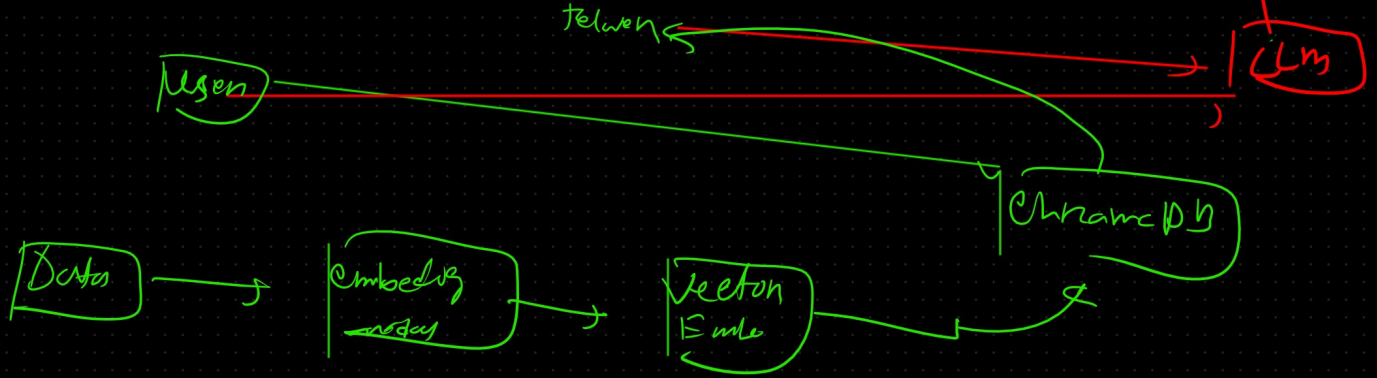
Chunks overlap = 50

chunk documents

chunk - 1 → 500 Tokens

Signaling that investments in the supply chain sector remain robust, Pando, a startup developing fulfillment management technologies, today announced that it raised \$30 million in a Series B round, bringing its total raised to \$45 million. Iron Pillar and Uncorrelated Ventures led the round, with participation from existing investors Nexus Venture Partners, Chiratae Ventures and Next47. CEO and founder Nitin Jayakrishnan says that the new capital will be put toward expanding Pando's global sales, marketing and product capabilities in new industries or adjacent product areas, he told TechCrunch in an email interview. "Great talent is the foundation of the business — we will continue to augment our teams at all levels of the organization. Pando is also open to exploring strategic partnerships and acquisitions with this round of funding." Pando was co-launched by Jayakrishnan and Abhijeet Manohar, who previously worked together at iDelivery, an India-based freight tech marketplace — and their first startup. The two saw firsthand manufacturers, distributors and retailers were struggling with legacy tech and point solutions to understand, optimize and manage their global logistics operations — or at least, that's the story Jayakrishnan tells. "Supply chain leaders were trying to build their own tech and throwing people at the problem," he said. "This caught our attention — we spent months talking to and building for enterprise users at warehouses, factories, freight yards and ports and eventually, in 2018, decided to start Pando to solve for global logistics through a software-as-a-service platform offering." There's truth to what Jayakrishnan's expressing about pent-up demand. According to a recent McKinsey survey, supply chain companies had — and have — a strong desire for tools that deliver greater supply chain visibility. Sixty-seven percent of respondents to the survey say that they've implemented dashboards for this purpose, while over half say that they're investing in supply chain visibility services more broadly, outside of the enterprise, including data on customers, suppliers,

connected



FAISS — local
[Clarivate]

[Relis]

