**Use Case:** Build a chat bot for Retail store selling tshirts. Where user can get the information about the inventory and sales

**Tech Stack:**

Google palm is the LLM used it is used within langchain frame work

Langchain framework is used to train the llm models

Hugging face will be used to convert the Q N A to embeddings

Strem lit is used for developing the UI

MYSQL is sued to store the dataset of retail store

Google Palm is the

STEPS:

1. Setup the databased my creating the tables in mysql for tshirt store

1**. t\_shirts** is the table has the columns t\_shirt\_id, brand, color, size, price, stock\_quantity

2.Disccounts is the table has columns discount\_id, t\_shirt\_id, pct\_discount

2. Created API key for google palm from makers suite

3. Created llm object using the key

4.Create a db object with the username/password and uri

5. Train the LLM for different combination of queries

1. Create a Hugging face embedding object : u will use this object to create embedding for the Q and A , you want to ask the DB . embedding is a sequence of numbers represents word as a number
2. Fewshots template is used to provide the question and answer(query) pairs to train the llm

Ex: Question :

SQL Query:

SQL Result:

Answer:

1. convert all the strings in few\_shot array to a single line string
2. Convert the string created above to embedding
3. And store the embedding to a vector database
4. From vector DB you can also pull the similar looking embeddings to answer a new question which is similar to the existing question

Similarity matching for the embeddings we saved in the vectordatabase.ex: find in the vector database similar looking queries

1. Create a custom prompt to say instructions like use only column relevant to my table
2. Create relationship between llm ,prompt, vector database ask llm to refer to vector db when a question is asked

new\_chain = SQLDatabaseChain.from\_llm(llm, db, verbose=True, prompt=few\_shot\_prompt)

1. Use streamlit to develop UI