

Installing all the packages

```
!pip install langchain
!pip install openai
!pip install python-dotenv
!pip install faiss-cpu
!pip install tiktoken
!pip install chromadb
!pip install transformers
!pip install torch
```

```
Requirement already satisfied: opentelemetry-exporter-otlp-proto-common==1.21.0 in /usr/local/lib/python3.10/dist-packages (from opentelemetry-exporter-otlp-proto==1.21.0)
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Requirement already satisfied: asgiref~=3.0 in /usr/local/lib/python3.10/dist-packages (from opentelemetry-instrumentation-asgi==0.42b0)
Requirement already satisfied: monotonic>=1.5 in /usr/local/lib/python3.10/dist-packages (from posthog>=2.4.0->chromadb)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.10/dist-packages (from requests>=2.28->chromadb)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages (from requests>=2.28->chromadb)
Requirement already satisfied: huggingface-hub<1.0,>=0.16.4 in /usr/local/lib/python3.10/dist-packages (from tokenizers==0.15.2->transformers)
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Requirement already satisfied: pyasn1-modules>=0.2.1 in /usr/local/lib/python3.10/dist-packages (from google-auth>=1.0.4->google-auth-oauthlib)
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Requirement already satisfied: zipp>=0.5 in /usr/local/lib/python3.10/dist-packages (from importlib-metadata<7.0,>=6.0->transformers)
Requirement already satisfied: humanfriendly>=9.1 in /usr/local/lib/python3.10/dist-packages (from coloredlogs->onnxruntime)
Requirement already satisfied: mpmath>=0.19 in /usr/local/lib/python3.10/dist-packages (from sympy->onnxruntime>=1.14.1->transformers)
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Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.10/dist-packages (from jinja2->torch) (2.1.3)
Requirement already satisfied: mpmath>=0.19 in /usr/local/lib/python3.10/dist-packages (from sympy->torch) (1.3.0)
```

Importing All the required packages

```
from langchain.document_loaders import TextLoader
from langchain.text_splitter import CharacterTextSplitter
from langchain.embeddings import OpenAIEmbeddings
from dotenv import load_dotenv
from langchain.vectorstores import Chroma,FAISS
from transformers import pipeline
from langchain import chat_models, prompts, callbacks
from langchain.schema import output_parser
from langsmith import Client
```

```
key= "sk-YHten2wPhYzU3CTQ3DcNT3B1bkFJiZo6UIBNF0hVQFADTqMd"
```

Performing Embeddings on the data chunks

```
embeddings=OpenAIEmbeddings(openai_api_key=key)
```

breaking the data in smaller chunks

```
text_splitter= CharacterTextSplitter(
    separator="\n",
    chunk_size=2600,
    chunk_overlap=00
)
```

Loading the Dataset in Txt format

```
loader = TextLoader("/content/Dronealexa.txt")
docs=loader.load_and_split(
    text_splitter=text_splitter
)
```

Performing vector Space on the data set

```
db = FAISS.from_documents(docs, OpenAIEmbeddings(openai_api_key=key))
```

The UI for the ChatBot

```

chatbot_html = """
<style type="text/css">#log p { margin: 5px; font-family: sans-serif; }</style>
<div id="log"
  style="box-sizing: border-box;
    width: 600px;
    height: 32em;
    border: 1px grey solid;
    padding: 2px;
    overflow: scroll;">

import IPython
from google.colab import output
#client = Client()
display(IPython.display.HTML(chatbot_html + \
    "<script>let getResp = colabGetResp;</script>"))
def summarize_text(text, max_length=150, min_length=50):
    summarizer = pipeline("summarization", model="facebook/bart-large-cnn")
    summary = summarizer(text, max_length=max_length, min_length=min_length, length_penalty=2.0)[0]['summary_text']
    return summary
def get_response(val):
    resp = db.similarity_search(val)
    input_text=resp[0].page_content
    # run_id=resp[0].ids
    # client.create_feedback(run_id, "thumbs_up", score=True)
    result = summarize_text(input_text)
    return IPython.display.JSON({'result': result})

output.register_callback('notebook.get_response',get_response)

```

🤖 : what is jump start drone

🚁 : A method for controlling an unmanned aerial vehicle (UAV) to track a monitored person is provided. A display screen on the drone body allows viewing of captured image data. Booms are configured to both support the flight components of the drone and allow manipulation. Boom handles allow a user to hold and manually aim the camera.

🤖 : what is mobile robot for telecommunication

🚁 : A doorbell has a button that, upon being touched, depressed or activated, causes an audio speaker of an electronic device to sound an audible notification. The doorbell also has a camera that captures video data within a field of view. The remote server receives the video data from the doorbell and relays them to the monitoring device.

type here!

config.json: 100%	1.58k/1.58k [00:00<00:00, 45.2kB/s]
model.safetensors: 100%	1.63G/1.63G [00:18<00:00, 117MB/s]
generation_config.json: 100%	363/363 [00:00<00:00, 14.9kB/s]
vocab.json: 100%	899k/899k [00:00<00:00, 4.86MB/s]
merges.txt: 100%	456k/456k [00:00<00:00, 3.83MB/s]
tokenizer.json: 100%	1.36M/1.36M [00:00<00:00, 5.79MB/s]