Week 11 Homework 1 Project: Genai - Containerized Video Transcription And Chat App

Priyanka, 20179

Task: To deploy the Streamlit application (a video chat app) inside the Docker container using streamlit python framework, openai and pinecone apis..

Prerequisites

• OpenAI API Key

• Pinecone API Key

• The latest version of Docker Desktop

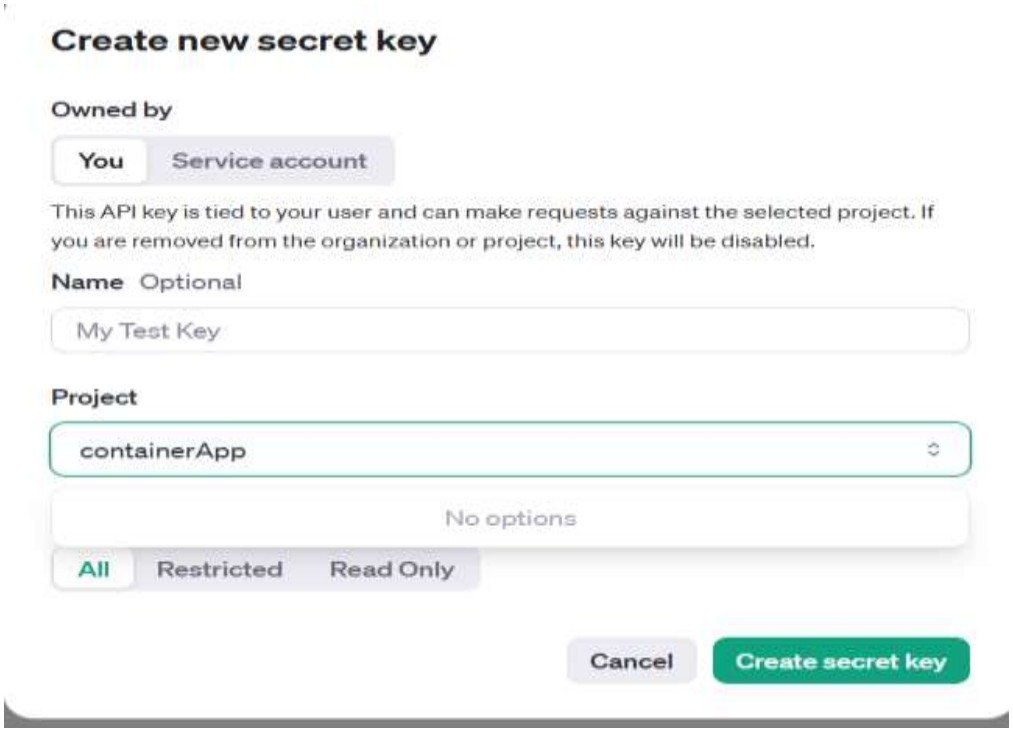
• GitHub repo Steps:

1. Open terminal and clone the following repository:

   $ git clone https://github.com/Davidnet/docker-genai.git

```
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to my-project-last-444223.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
priyanka599@cloudshell:~ (my-project-last-444223)$ git clone https://github.com/Davidnet/docker-genai.git
Cloning into 'docker-genai'...
remote: Enumerating objects: 66, done.
remote: Counting objects: 100% (66/66), done.
remote: Compressing objects: 100% (43/43), done.
remote: Total 66 (delta 24), reused 60 (delta 20), pack-reused 0 (from 0)
Receiving objects: 100% (66/66), 114.38 KiB | 984.00 KiB/s, done.
Resolving deltas: 100% (24/24), done.
priyanka599@cloudshell:~ (my-project-last-444223)$
```

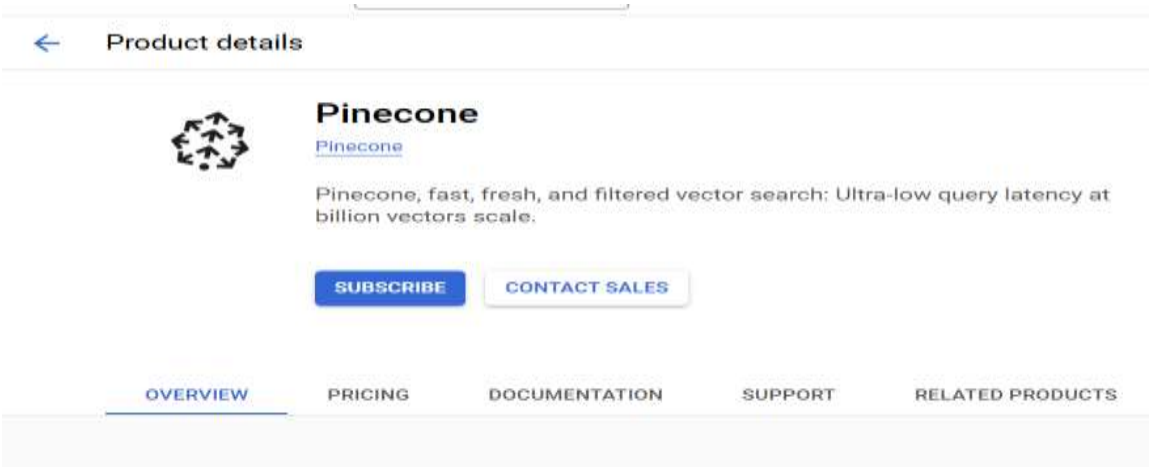
2. Go to openai.com > API login > API > Dashboard > API Keys.
   Then click on ‘Create new secret key’ and give a name to the key.

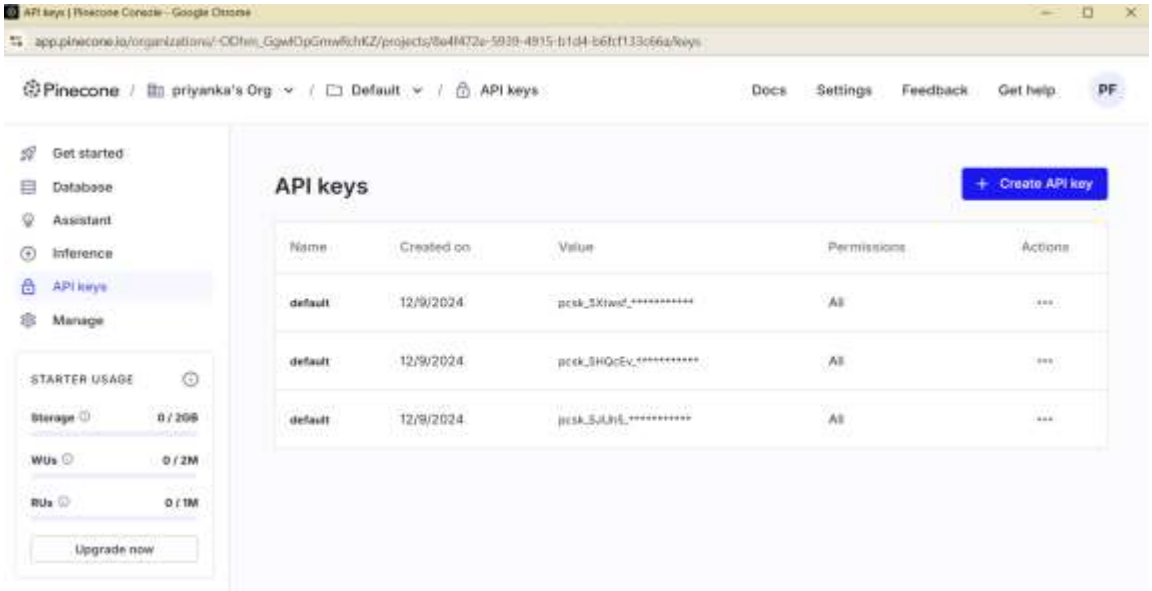


The next step is to get a pinecone API key.

For this, search pinecone in your google cloud and click on subscribe.

From there, it will redirect you to pinecone website. Enter your email and go to its dashboard. There, click on API Keys and copy the key.





Specify your API keys.

Go to docker-genai directory:

$ cd docker-genai

Create a text file ".env":

$ vim .env

Give the below script in the .env file and replace the keys with your Actual keys:

#----------

OpenAI

#----------

OPENAI_TOKEN=your-api-key # Replace your-api-key with your personal API key

#----------

Pinecone

#----------

PINECONE_TOKEN=your-api-key # Replace your-api-key with your personal API key

5. Build and run the application after getting inside the folder.

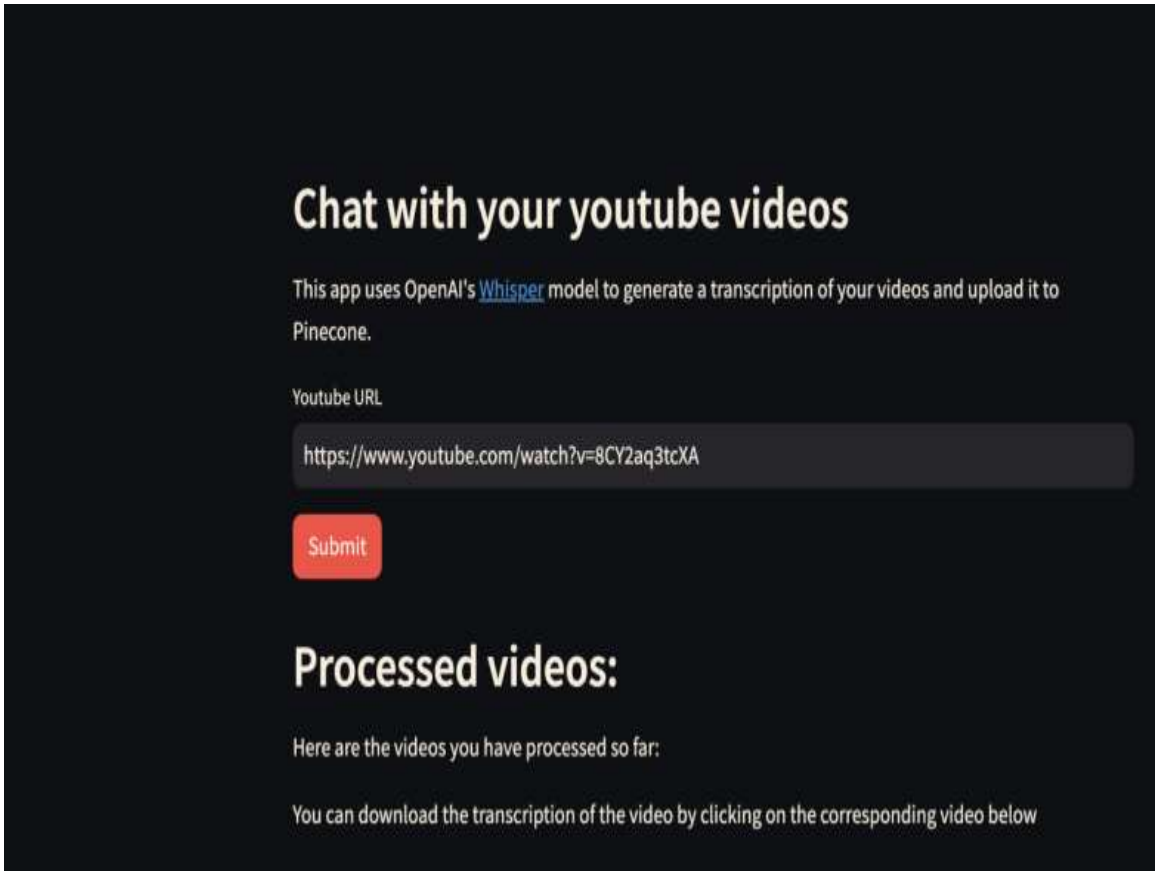
$ docker compose up –build

```
 => => naming to docker.io/library/docker-genai-yt-whisper
 => [bot] exporting to image
 => => exporting layers
 => => writing image sha256:825c368227737f0d384aeee0eb24f952c7e221c8592ef4c59c228237d1a192ee
 => => naming to docker.io/library/docker-genai-bot
 => [bot] resolving provenance for metadata file
 => [yt-whisper] resolving provenance for metadata file
[+] Running 3/3
 ✓ Network docker-genai_default         Created
 ✓ Container docker-genai-yt-whisper-1  Created
 ✓ Container docker-genai-bot-1         Created
Attaching to bot-1, yt-whisper-1
bot-1          |
bot-1          | Collecting usage statistics. To deactivate, set browser.gatherUsageStats to false.
bot-1          |
yt-whisper-1   |
yt-whisper-1   | Collecting usage statistics. To deactivate, set browser.gatherUsageStats to false.
yt-whisper-1   |
bot-1          |
bot-1          |   You can now view your Streamlit app in your browser.
bot-1          |
bot-1          |   URL: http://0.0.0.0:8504
bot-1          |
yt-whisper-1   |
yt-whisper-1   |   You can now view your Streamlit app in your browser.
yt-whisper-1   |
yt-whisper-1   |   URL: http://0.0.0.0:8503
yt-whisper-1   |
```

6. Use the yt-whisper service

Open a browser and access the yt-whisper service at

http://localhost:8503



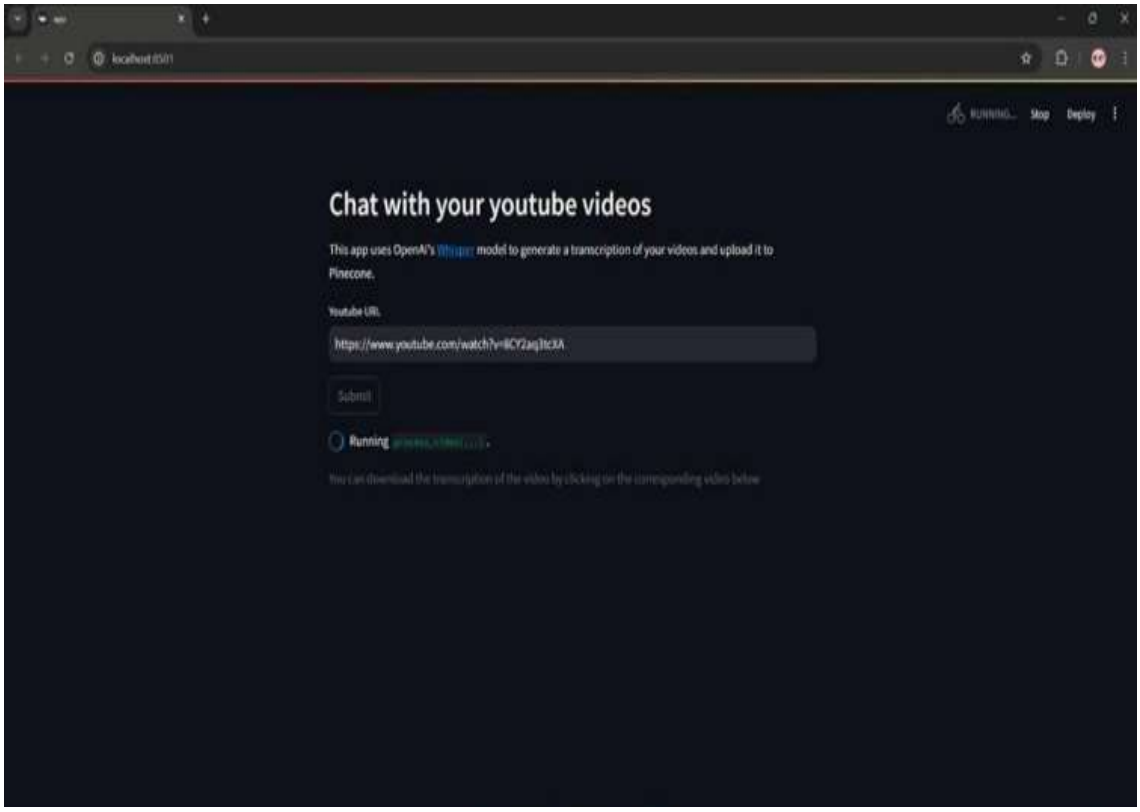
Running on port 8503, this service processes YouTube videos, transcribes them using Whisper, and stores the data in Pinecone.

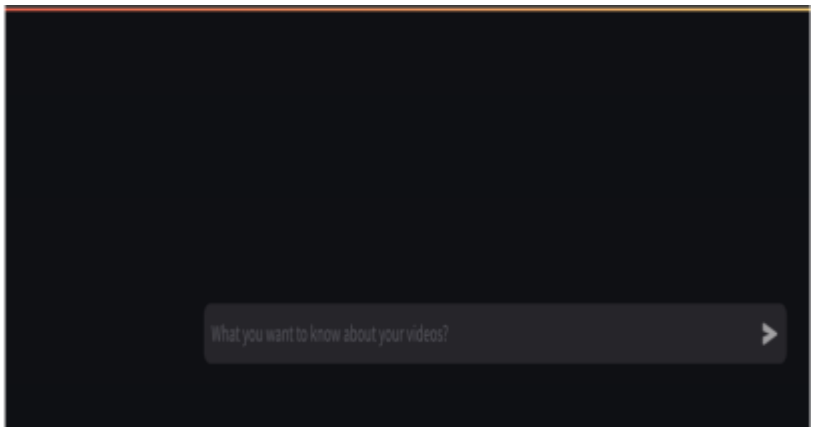
Enter the Youtube video URL you want to use and select “Submit”.

Available on port 8504, this service answers questions about the transcribed videos by querying the Pinecone

database and generating responses using GPT.

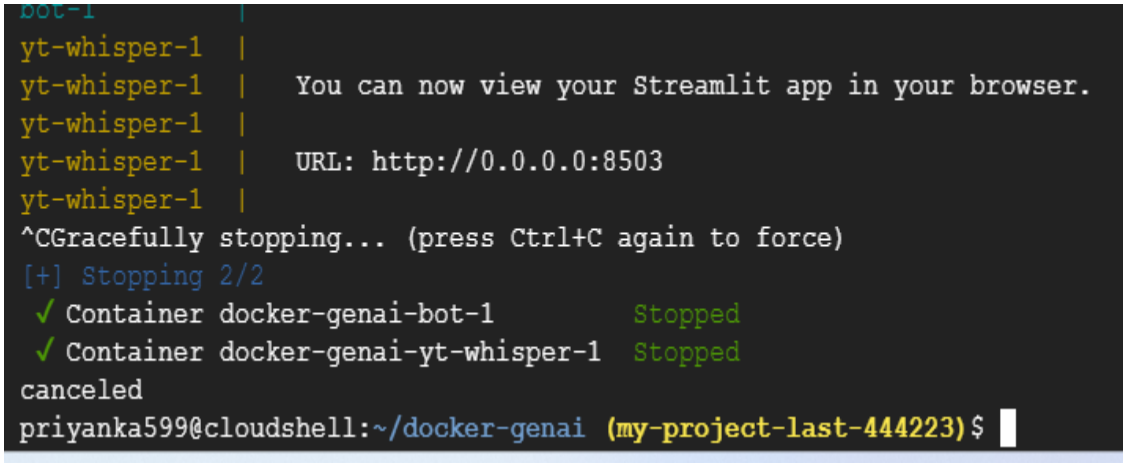
http://localhost:8503





In the terminal, press Ctrl + C to stop the application:

```
 => [bot] exporting to image
 => => exporting layers
 => => writing image sha256:825c36822773700d384aeee0eb24f952c7e221c8592ef
 => => naming to docker.io/library/docker-genai-bot
 => [yt-whisper internal] load build context
 => => transferring context: 446B
 => [bot] resolving provenance for metadata file
 => CACHED [yt-whisper base 4/5] RUN --mount=type=cache,target=/root/.cac
 => CACHED [yt-whisper base 5/5] COPY . .
 => [yt-whisper] exporting to image
 => => exporting layers
 => => writing image sha256:1438ab7d3022319ea3788b92efe514e2e068262818459
 => => naming to docker.io/library/docker-genai-yt-whisper
#---------------------------------------------------------------------------
 => [yt-whisper] resolving provenance for metadata file
[+] Running 2/0
 ✓ Container docker-genai-yt-whisper-1  Created
 ✓ Container docker-genai-bot-1         Created
Attaching to bot-1, yt-whisper-1
bot-1          |
bot-1          | Collecting usage statistics. To deactivate, set browser.g
bot-1          |
yt-whisper-1   |
yt-whisper-1   | Collecting usage statistics. To deactivate, set browser.g
yt-whisper-1   |
bot-1          |
bot-1          |   You can now view your Streamlit app in your browser.
bot-1          |
bot-1          |   URL: http://0.0.0.0:8504
bot-1          |
yt-whisper-1   |
yt-whisper-1   |   You can now view your Streamlit app in your browser.
yt-whisper-1   |
yt-whisper-1   |   URL: http://0.0.0.0:8503
yt-whisper-1   |
^CGracefully stopping... (press Ctrl+C again to force)
[+] Stopping 2/2
 ✓ Container docker-genai-bot-1         Stopped
 ✓ Container docker-genai-yt-whisper-1  Stopped
```


bot-1 |
yt-whisper-1 |
yt-whisper-1 | You can now view your Streamlit app in your browser.
yt-whisper-1 |
yt-whisper-1 | URL: http://0.0.0.0:8503
yt-whisper-1 |
^CGracefully stopping... (press Ctrl+C again to force)
[+] Stopping 2/2
✓ Container docker-genai-bot-1 Stopped
✓ Container docker-genai-yt-whisper-1 Stopped
canceled
priyanka599@cloudshell:~/docker-genai (my-project-last-444223)$