

Requirements & Updates required

1. Step 1: Get Google client services file:
 - Login to your Google cloud services (<https://console.cloud.google.com/apis/credentials>) and create a new project or use an existing one.
 - Then go to Credentials in APIs & Services and create “OAuth 2.0 Client IDs” using [“https://support.google.com/cloud/answer/6158849?hl=en#userconsent&zipy=%2Cuser-consent”](https://support.google.com/cloud/answer/6158849?hl=en#userconsent&zipy=%2Cuser-consent) and create a OAuth file.
 - Then download the file and rename it to “client_services.json”
 - Finally place in with all the other files.
2. Step 2: Configuring OpenAI API keys using “gpt-4o-mini”
 - Login or sign up to your OpenAI API (<https://openai.com/index/openai-api/>) and navigate to Dashboard -> API keys.
 - Create a new Key and save it as “openai_key.json”
 - Remember to take a screenshot or store this key as it won’t be visible again.
 - Here is the details on which model to use [“https://platform.openai.com/docs/models/gpt-4o-mini”](https://platform.openai.com/docs/models/gpt-4o-mini)
 - To learn more about gpt-4o-mini model you can refer to <https://benjaminrozat.com/gpt-4o-mini> Medium post.
3. Step 3: Installing the dependencies from “requirements.txt” file.
 - It might suggest upgrading the packages which is fine.
4. Step 4: token.pickle file
 - If at any point you want to change your gmail, just delete your token.pickle file from the folder and you should be fine.
 - I would suggest to delete this file before every run to get the option of choosing your gmail account.
5. Step 5: Understanding the code
 - Firstly, for gmail I used only “readonly” scope because I wanted to read the gmail and use it for analysis. There are different scopes so know which one to use beforehand.
 - The UI in “app.py” uses fixed style imported from google api css. You can remove and build your own from scratch. For this I used streamlit components v1.
6. Step 6: Run the web app
 - Use “streamlit run app.py” in terminal to run it in your localhost.

- Make sure this local host is added in your redirect URIs list in Gmail OAuth as below.

Authorized redirect URIs

For use with requests from a web server

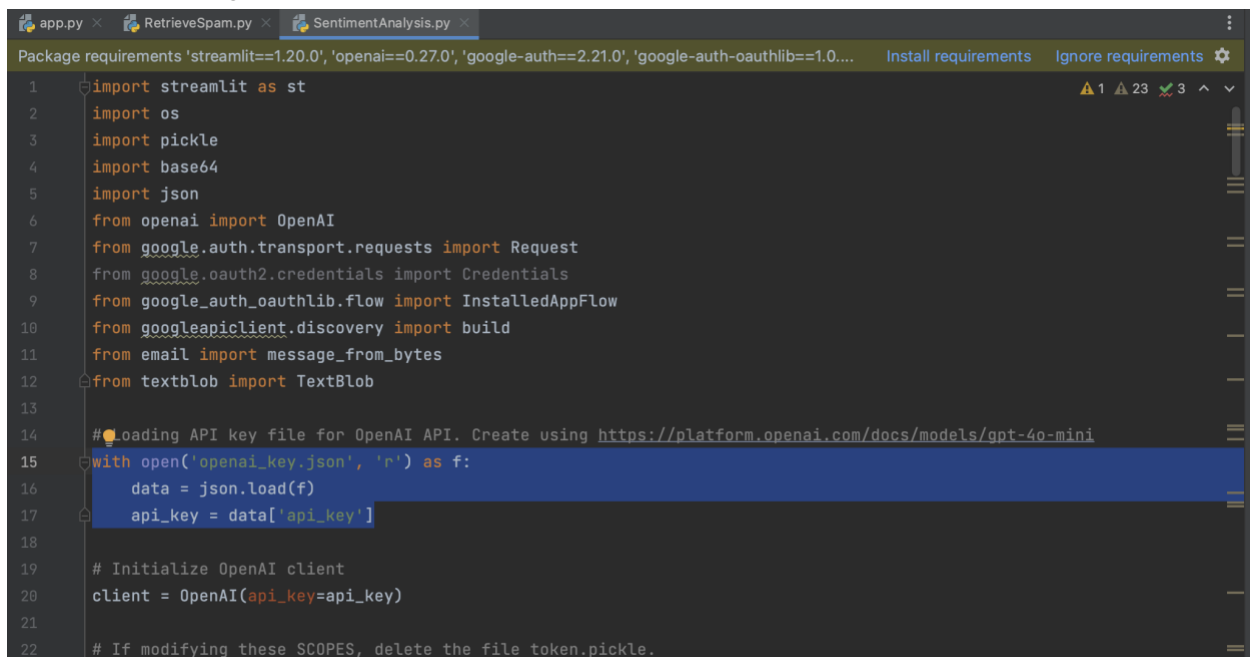
[+ ADD URI](#)

7. References:

- You can tag this github and my linkedin (<https://www.linkedin.com/in/rahul-gupta-a31749166/>)
- I used a YouTube video by Jie Jenn. Easy to understand on how to use Gmail API (<https://www.youtube.com/watch?v=44ERDga9Dr4>)

8. Note

- Don't forget to add client_services.json and update openai_key.json files to use it in the code.
- Also update the path of openai_key.json file in the "SentimentAnalysis.py" file



```
1 import streamlit as st
2 import os
3 import pickle
4 import base64
5 import json
6 from openai import OpenAI
7 from google.auth.transport.requests import Request
8 from google.oauth2.credentials import Credentials
9 from google_auth_oauthlib.flow import InstalledAppFlow
10 from googleapiclient.discovery import build
11 from email import message_from_bytes
12 from textblob import TextBlob
13
14 # Loading API key file for OpenAI API. Create using https://platform.openai.com/docs/models/gpt-4o-mini
15 with open('openai_key.json', 'r') as f:
16     data = json.load(f)
17     api_key = data['api_key']
18
19 # Initialize OpenAI client
20 client = OpenAI(api_key=api_key)
21
22 # If modifying these SCOPES, delete the file token.pickle.
```