YouTube Comment Extraction

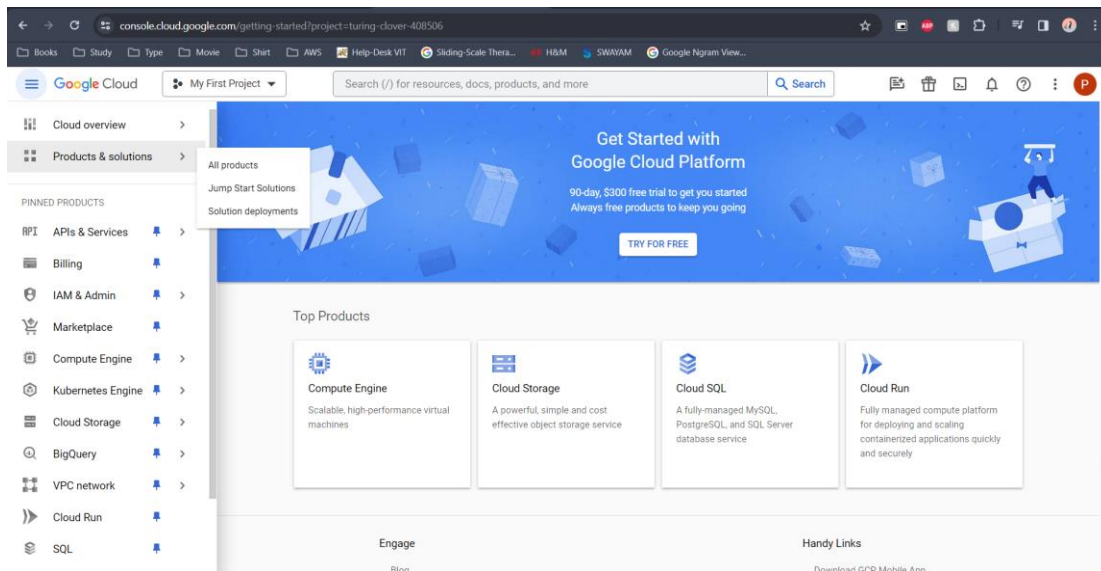# Palash Yash – 21BPS1101

Problem Statement –

Extract comments from YouTube for a specified account using Python, need to submit the Documentation or Report. This Report should contain the comments on each line, code, flow chart and Output.
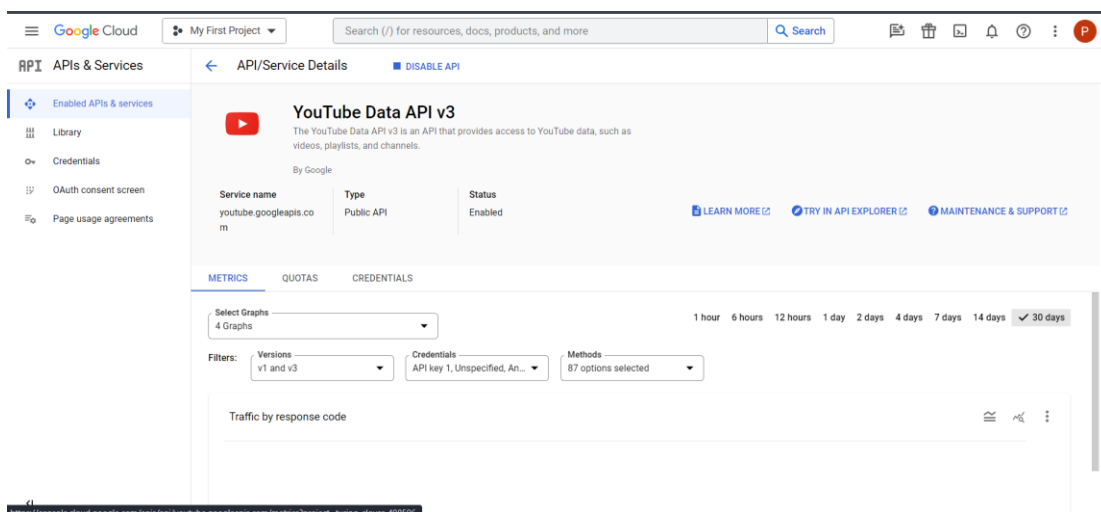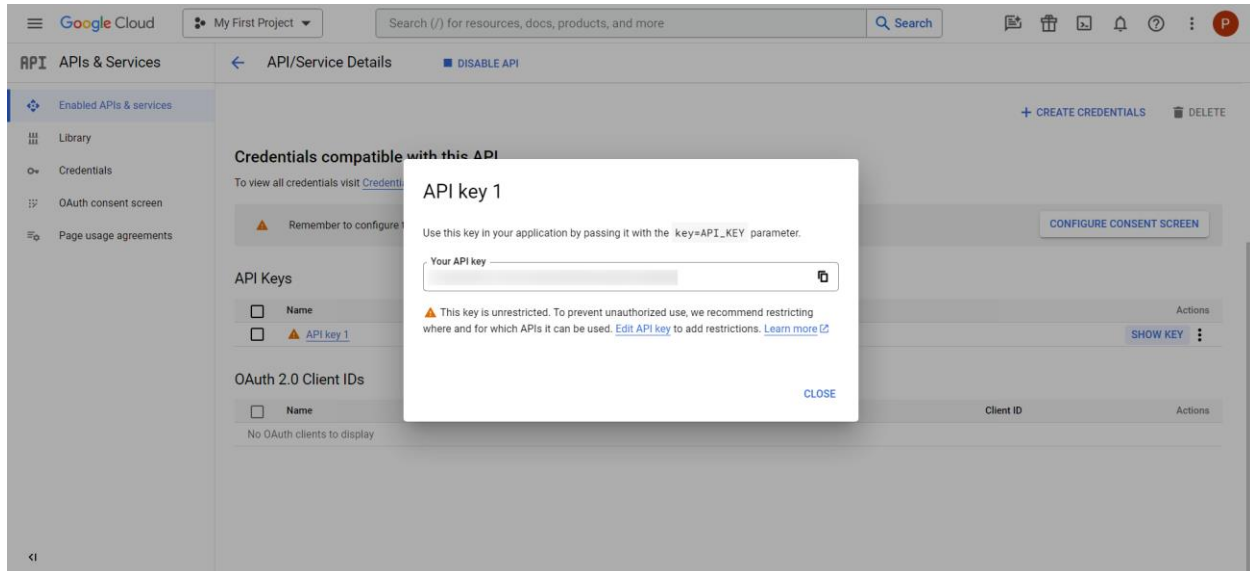
Solution –

1. Procedure –

**Step 1:** Create an account in Google Cloud Console, to get access to YouTube API

Step 2: Find the 'YouTube Data API v3' product and enable it

Step 3: Generate an API Key and copy Key to call Developer_id in the Python Code

(Created a Blur on the API Key, to keep the API Key Confidential)

Step 4: Select the YouTube Video you want to extract the command from, and copy the Video_Id for the Python Code
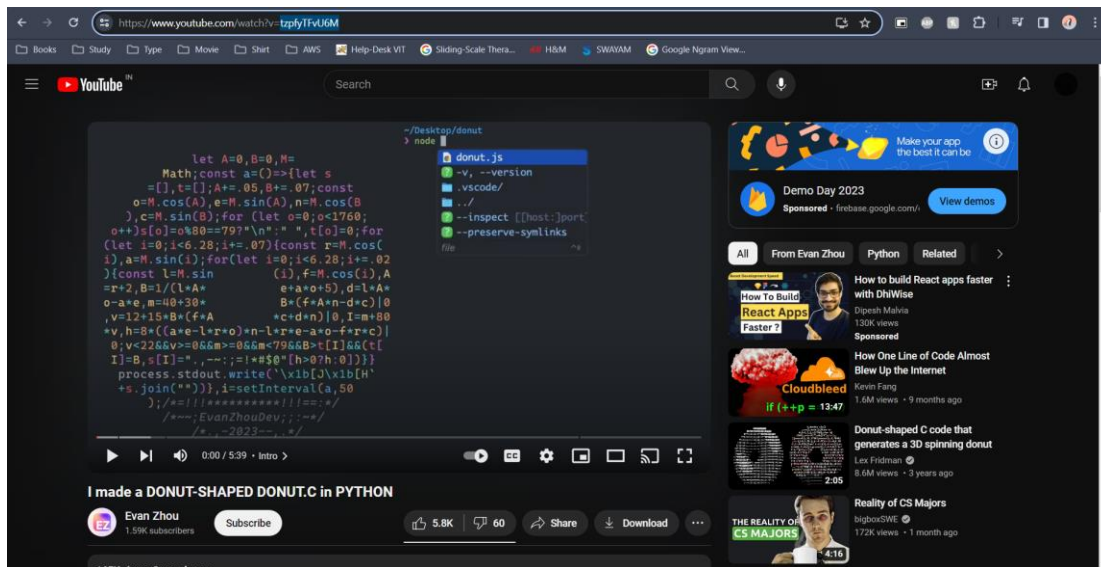
2. Python Code –

```python
import googleapiclient.discovery
import pandas as pd

api_service_name = "youtube"
api_version = "v3"
DEVELOPER_KEY = ""

youtube = googleapiclient.discovery.build(
    api_service_name, api_version, developerKey=DEVELOPER_KEY)

request = youtube.commentThreads().list(
    part="snippet",
    videoId="tzpfyTFvU6M",
    maxResults=100
)
response = request.execute()

comments = []

for item in response['items']:
    comment = item['snippet']['topLevelComment']['snippet']
    comments.append([
        comment['authorDisplayName'],
        comment['textDisplay']
    ])

df = pd.DataFrame(comments, columns=['author', 'text'])

df.head(100)
```

3. Algorithm –

import googleapiclient.discovery: Imports the discovery module from the googleapiclient package, used for interacting with Google APIs.

import pandas as pd: Imports the Pandas library.

api_service_name = "youtube": Specifies the API service name as "youtube" for the YouTube Data API.

api_version = "v3": Specifying the API version as "v3" for the YouTube Data API.

DEVELOPER_KEY = "": Sets the developer key for accessing the YouTube Data API.

youtube = googleapiclient.discovery.build(api_service_name, api_version, developerKey = DEVELOPER_KEY): Builds a connection to the YouTube Data API using the specified service name, version, and developer key.

request = youtube.commentThreads().list(part="snippet", videoId=" tzpfyTFvU6M ", maxResults=100): Constructs a request to the API to list comment threads for a specific video. It specifies the part to include ("snippet") and requests a maximum of 100 results.

response = request.execute(): Executes the API request and stores the response, which contains information about the comment threads.

comments = []: Initializes an empty list to store individual comments.

for item in response['items']: Iterates through each item (comment thread) in the API response.

comment = item['snippet']['topLevelComment']['snippet']: Extracts the snippet of the top-level comment within each comment thread.

comments.append([comment['authorDisplayName'], comment['textDisplay']]): Appends the author's display name and the displayed text of the comment to the comments list.

df = pd.DataFrame(comments, columns=['author', 'text']): Creates a Pandas DataFrame from the collected comments, with columns named 'author' and 'text'.

df.head(100): Displays the first 100 rows of the DataFrame, showing the authors and text of the comments.

4. Output –

```python
import googleapiclient.discovery
import pandas as pd

api_service_name = "youtube"
api_version = "v3"
DEVELOPER_KEY = "                              "

youtube = googleapiclient.discovery.build(
    api_service_name, api_version, developerKey=DEVELOPER_KEY)

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    ])

df = pd.DataFrame(comments, columns=['author', 'text'])

df.head(100)
```

1 to 50 of 95 entries   Filter

index	author	text
0	@a1k0n	Haha, very nice work! I still can't believe I nerd sniped so many people with this monstrosity
1	@tenryuufan	didnt download, just copied from vid
2	@official_meelees	i tried using semicolons to make a one liner but soon realised about the indent problem
3	@__mrmino__	You can put a `0;` at the start of the first line and then add spaces as much as you want. Or - even better - use the ellipsis. python << EOF ...; print("wubba") EOF
4	@patrickmauboussin	There is a dramatically simpler solution. Just write the entire code normally, then surround the code with triple quotes and set a variable "code" equal to it. Then replace all the actual new lines and tabulations with characters in code var and run eval(code). Add additional new lines as necessary until desired donut size is reached
5	@legendrags	son of a gun he did it!
6	@juxgd	average HOME - We're Finally Landing enjoyer
7	@jacksonlevine9236	EvanZhouTextShaper
8	@paulpc1up189	all fun and nice and everything but what is the name of the music at 4:50?
9	@SHORTPRIDE	Why be a baker if I can code my own donut?
10	@Ouabou-gv9lc	I thaught it was the donut shape in SPWN language
11	@r0fael_programmer	Imposible...
12	@jammin1336	One time i heard someone who didnt code say "whats a ka code!?" He meant C code
13	@AndyP3r3z	He did it :o
14	@awsmeanthony	To much power.
15	@kimpitus1700	How can I generate a donut template myself
16	@rodrigoqteixeira	3:47 I agree, just why 😁
17	@ojurerewaire1571	pls just use 2d nesting or putting a list in a list and make a function the convert the information in the list to make into a donut
18	@Mr-Yuki	man, it feels like you got too much time, you good? like really...... do you wanna talk to someone ? (obv joking, nice video!)
19	@astroorbis	Love hearing lofi songs I listen to a lot be used on Youtube XD Love the video!
20	@corners1733	ahok
21	@ValorantDerSchmutz	turtle not exist
22	@-caio-	you can use the exec() function
23	@basicbasedidot2547	100K+ views and 1K~ subs dang how did that happen lol
24	@The-python-guy	Amazing!
25	@shadowmist9422	My friend ordered me to tell you congratulations . Pursue your dreams young man !~
26	@luanon404	AI?
27	@samjackson5549	This has been around for so long bro you didn't make this
28	@user-hr2mz7of4v	Wow. This just made me realize people actually like coding. It also made me realize I like seeing code from people that like to code. It also made me realize I want to be one of those people who like to code. I also realized my new goal for the countdown to age 21 is to make code that people like to see because I like to code.
29	@IchBinDerDoktor	Hey there! Would it be okay for you if I printed this on a canvas for my office? I would keep your name included of course.
30	@48_subhambanerjee22	😂😂😂😂😂 ah man I'm dying
31	@juanjoseguva	This is art! Such a playful linguistic creation. git clone'd
32	@squarejellyfish16	Yooo someone finally done it! I tried this like a year ago but gave up when I realized I need to come up with a one-liner to do it. So I ended up just posting the regular one (on my channel btw)
33	@TheEighthAct	It's called a shower thought because I'm watching this video in the shower
34	@_lun4r_	pep8 will go to waste while shaping Python like a donut lmao
35	@powerfuluwu	bro made is bigger than what it was supposed to be and filled the end with a comment , what a manace
36	@I_I_I_I_I713	Its only a matter of time until bad apple
37	@lightcat3790	This is like the 6th donut.c video in my recommended videos, and i enjoyed all of them the challenge of indents is an interesting one. Also, the first music track is used by bausffs for his outro and it messed with my brain honestly
38	@nosult3220	Some one else made this tho. Like in 2020 right ? I think I saw this on Lex Friedman.
39	@hy69	I only know print thing in python so for me this looks dope
40	@ant5389	great! now do binary :3
41	@isheamongus811	Pass a base64 code to decoder and exec function. B64 code is a string and newlines should be ingnored by decoder
42	@twenty48	Come back nef
43	@xyssxy	couldnt you just use exec?
44	@sk8crusade269	Thank you chat gpt!
45	@XCanG	I would've replace single quotes to double (near 'math') and remove whitespaces at the end of the lines, otherwise make them on one line length (right now they are fluctuated with various length)
46	@gustavoh5143	The world will become a better place when we destroy everything related to python programming language
47	@Andy-jd2un	I like that. That's like slapping a bag of dogfood at the Costco you know I'm saying? Good stuff
48	@hwstar9416	lower quality software than the original
49	@RayMelodicJourney	It looks like a proper donut!

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