

The background features abstract, translucent geometric shapes in shades of blue, purple, and pink, floating in the upper right quadrant.

# **Sentiment Analysis**

## **Final Project**

DADS6005 : Data Streaming and Real Time Analysis

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# **Q1 : Project Discription**

This project is about analyzing social media comments on live Streaming of HEARTROCKER Channel and predicting trends with sentiment classification

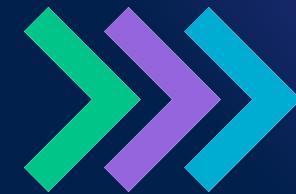
# Q2 : Diagram



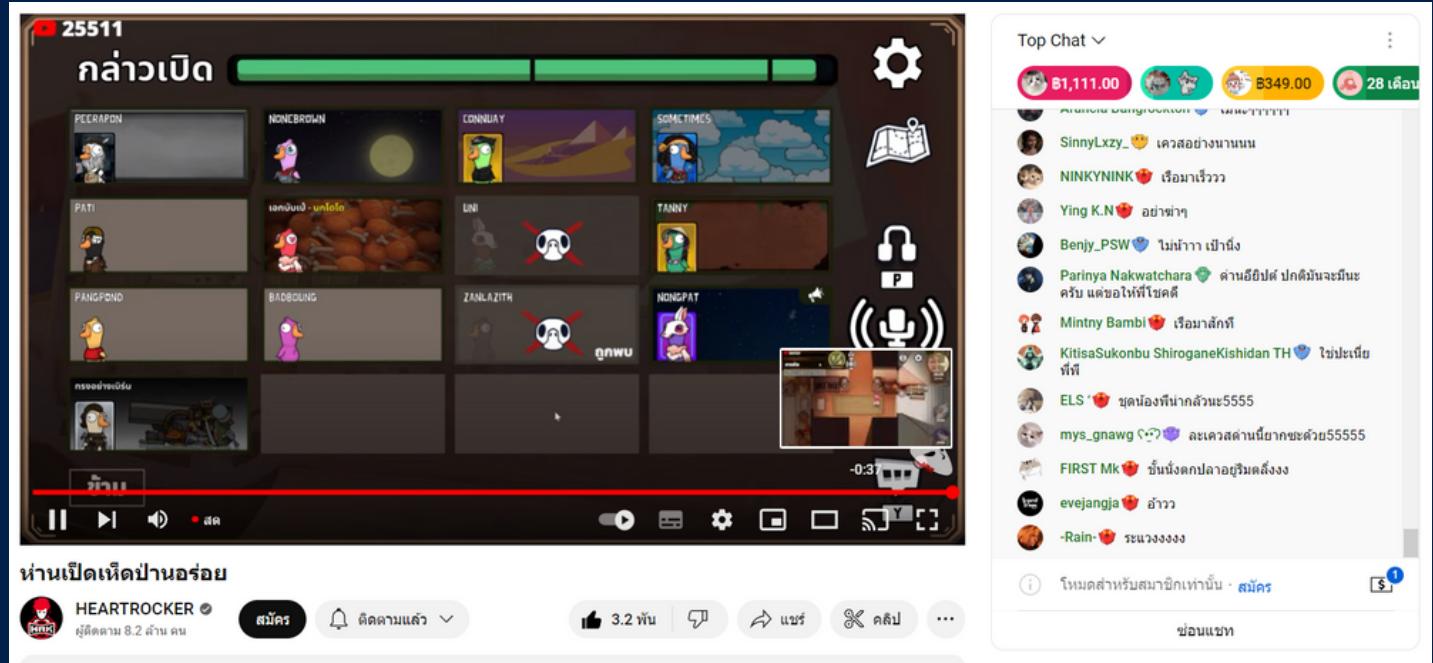
Hive MQ



Pre-Train  
Sentiment model



# Q3 : Data Collection and Modeling Process



<https://www.youtube.com/watch?v=EBcvHK2Moys>



Pre-Train Sentiment model



Negative



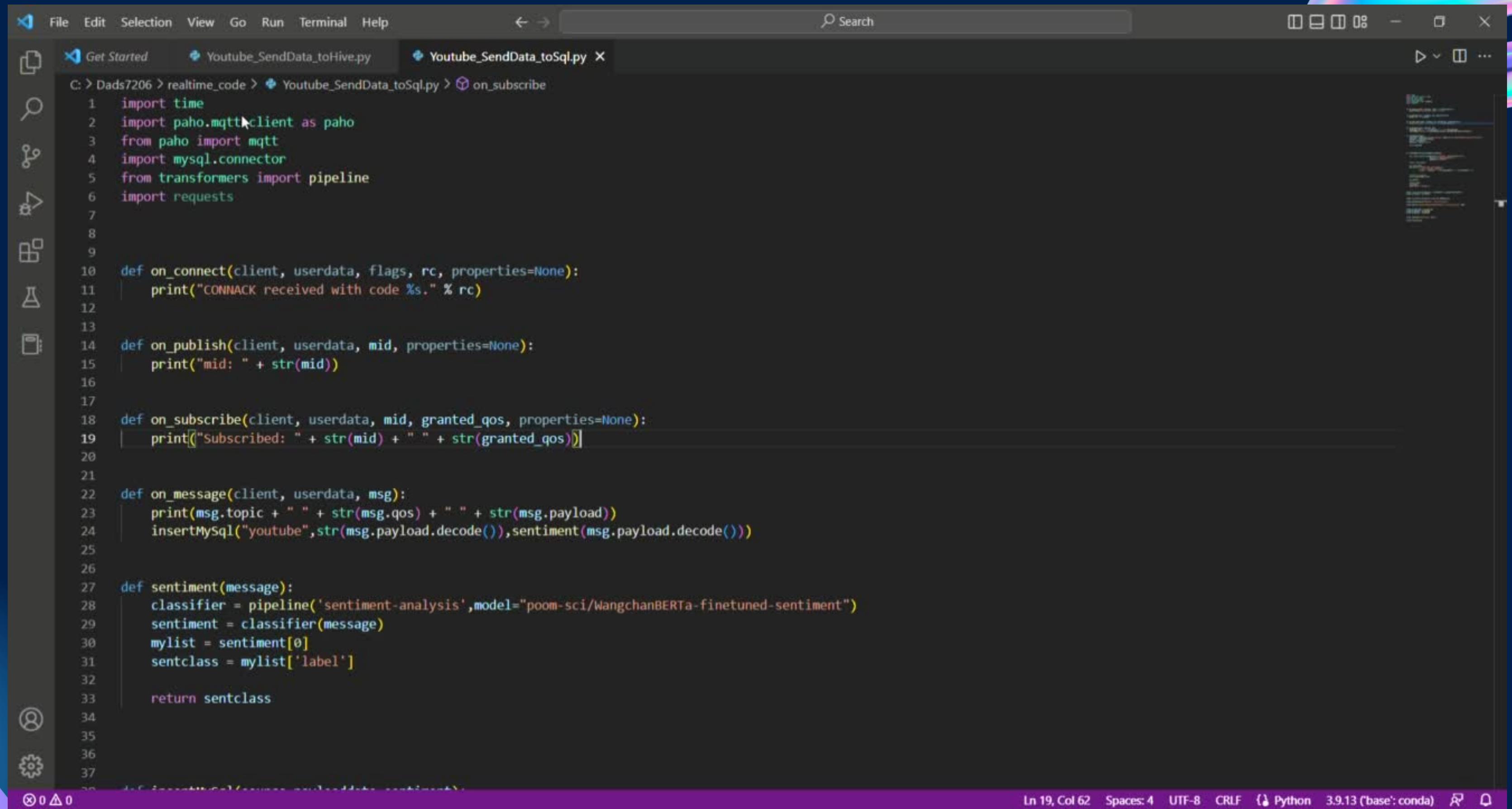
Neutral



Positive

# Source Code : publish

# Source Code : subscribe

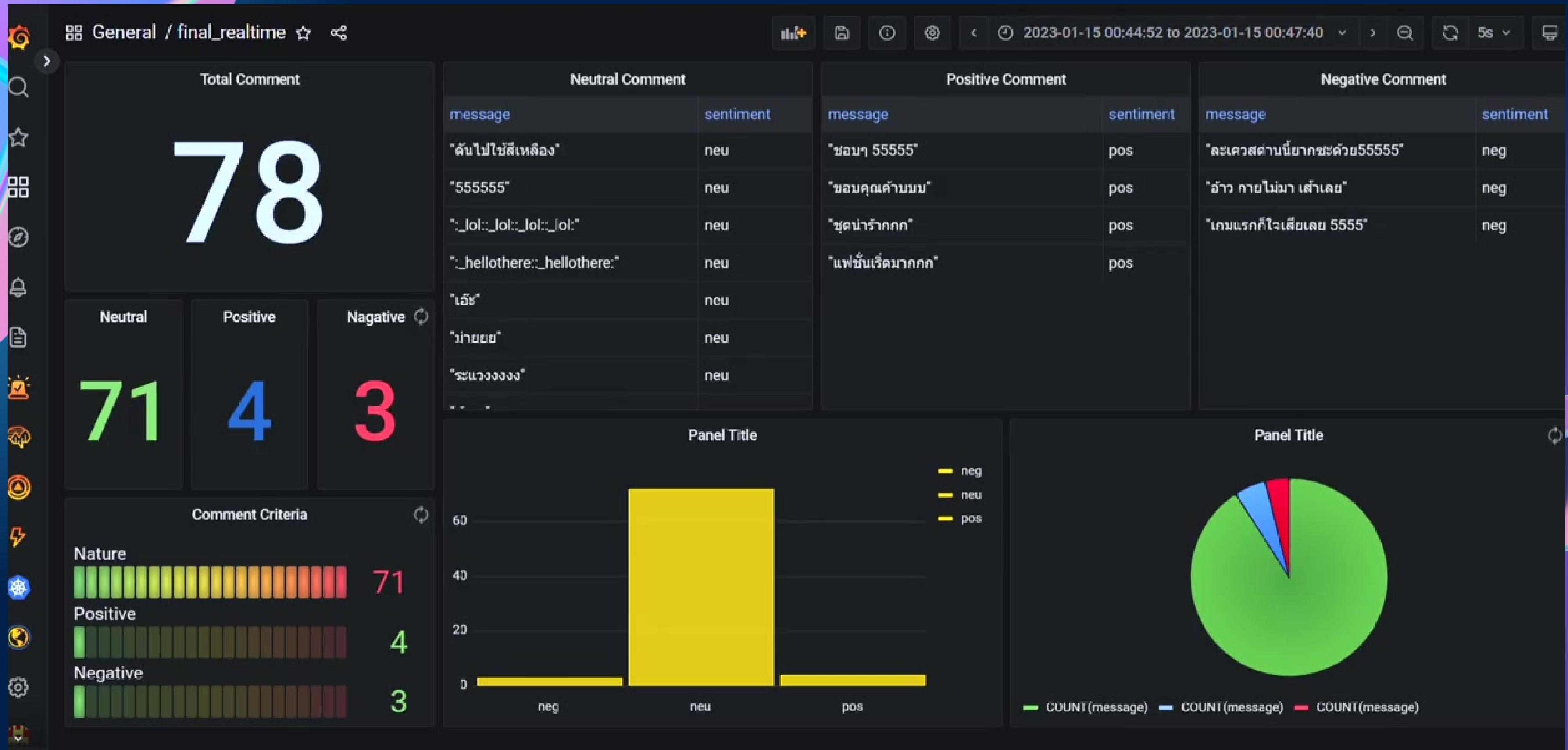


The screenshot shows a code editor window with the following details:

- Title Bar:** File Edit Selection View Go Run Terminal Help
- Search Bar:** Search
- Toolbar:** Includes icons for Get Started, Youtube\_SendData\_toHive.py, andYoutube\_SendData\_toSql.py.
- Left Sidebar:** Contains icons for file operations (New, Open, Save, Find, Copy, Paste, Delete), a search icon, a refresh icon, a project icon, a file icon, a person icon, and a gear icon.
- Code Area:** Displays Python code for an MQTT client. The code includes imports for time, paho.mqtt.client, paho, mysql.connector, transformers.pipeline, and requests. It defines several callback functions: on\_connect, on\_publish, on\_subscribe, and on\_message. The on\_subscribe function prints "Subscribed: " followed by the message ID and granted QoS level. The on\_message function prints the topic, QoS, and payload, and inserts the data into a MySQL database table named "youtube". A sentiment analysis function is also defined using a BERT model from the transformers library.
- Bottom Status Bar:** Shows the current line (Ln 19), column (Col 62), and other settings like Spaces: 4, UTF-8, CRLF, Python 3.9.13 ('base': conda), and a file icon.

```
C:\> Dads7206 > realtime_code > Youtube_SendData_toSql.py > on_subscribe
1  import time
2  import paho.mqtt.client as paho
3  from paho import mqtt
4  import mysql.connector
5  from transformers import pipeline
6  import requests
7
8
9
10 def on_connect(client, userdata, flags, rc, properties=None):
11     print("CONNACK received with code %s." % rc)
12
13
14 def on_publish(client, userdata, mid, properties=None):
15     print("mid: " + str(mid))
16
17
18 def on_subscribe(client, userdata, mid, granted_qos, properties=None):
19     print("Subscribed: " + str(mid) + " " + str(granted_qos))
20
21
22 def on_message(client, userdata, msg):
23     print(msg.topic + " " + str(msg.qos) + " " + str(msg.payload))
24     insertMySQL("youtube",str(msg.payload.decode()),sentiment(msg.payload.decode()))
25
26
27 def sentiment(message):
28     classifier = pipeline('sentiment-analysis',model="poom-sci/WangchanBERTa-finetuned-sentiment")
29     sentiment = classifier(message)
30     mylist = sentiment[0]
31     sentclass = mylist['label']
32
33     return sentclass
34
35
36
37
```

# Analytics Result Visualization with Grafana



# Q4 : Conclusions



## Real-Time Dashboard Show

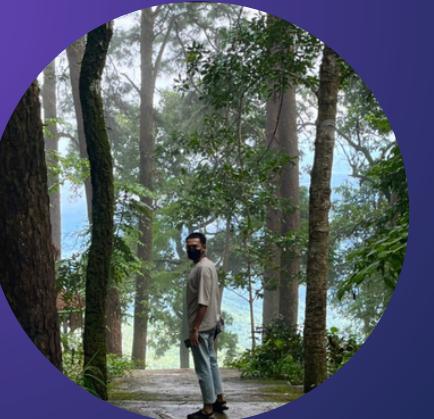
1. Total Comment
2. Sentiment Analysis
  - o Positive Comments
  - o Neutral Comments
  - o Negative Comments
3. Comment Text Group by Sentiment Analysis
4. Sentiment Analysis Ratio



## Discussion

- Before training model, the model has not high accuracy.
- customer's opinion or recommendations are a treasure trove of information that can be analyzed and processed to assess customer sentiment. So that the webpage can plan and improve for future work.

# Our Team



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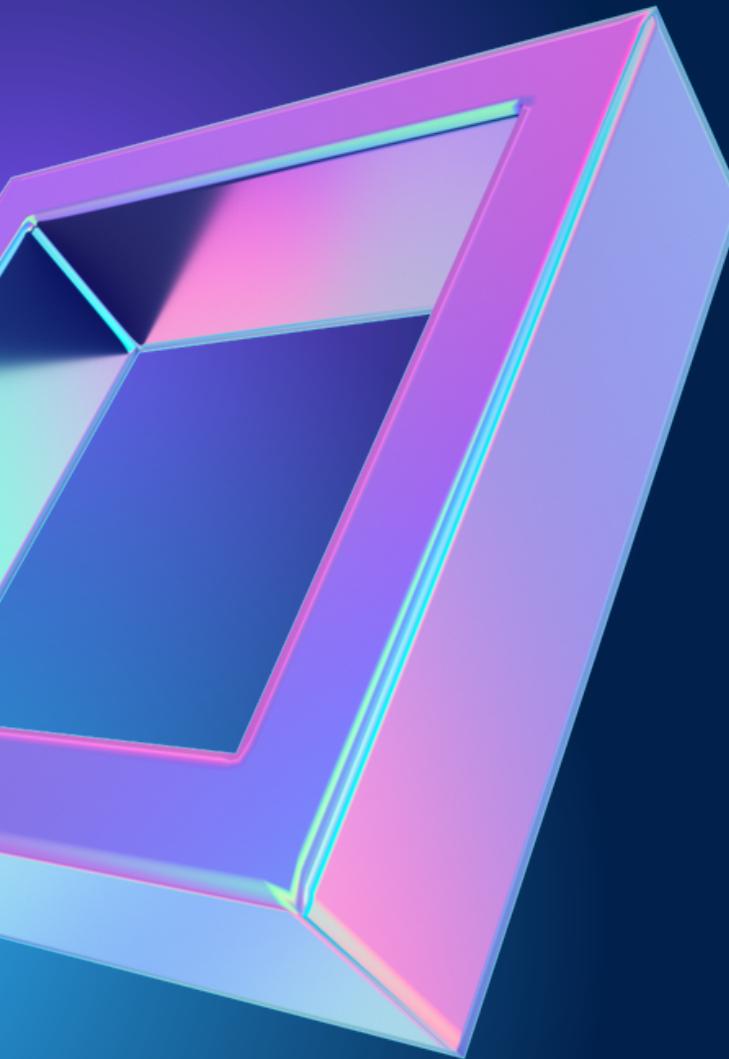
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Thank You