DECODING EMOTION THROUGH SENTIMENT ANALYSIS OF SOCIAL MEDIA CONVERSATION.

**PROGRAM:**

import tweepy

import pandas as pd

from transformers import pipeline

# Twitter API credentials (replace with your own keys)

API\_KEY = "your\_api\_key"

API\_SECRET = "your\_api\_secret"

ACCESS\_TOKEN = "your\_access\_token"

ACCESS\_SECRET = "your\_access\_secret"

# Authenticate with Twitter

auth = tweepy.OAuth1UserHandler(API\_KEY, API\_SECRET, ACCESS\_TOKEN, ACCESS\_SECRET)

api = tweepy.API(auth)

# Function to fetch tweets

def fetch\_tweets(keyword, count=50):

tweets = tweepy.Cursor(api.search\_tweets, q=keyword, lang="en", tweet\_mode='extended').items(count)

return [tweet.full\_text for tweet in tweets]

# Load emotion classification pipeline

emotion\_classifier = pipeline("text-classification", model="bhadresh-savani/distilbert-base-uncased-emotion")

# Analyze emotions

def analyze\_emotions(tweets):

results = []

for tweet in tweets:

prediction = emotion\_classifier(tweet)[0]

results.append({

"tweet": tweet,

"emotion": prediction['label'],

"score": round(prediction['score'], 3)

})

return pd.DataFrame(results)

# Main logic

if \_name\_ == "\_main\_":

keyword = input("Enter keyword or hashtag to search tweets: ")

tweets = fetch\_tweets(keyword, count=50)

df = analyze\_emotions(tweets)

print("\nEmotion Analysis Results:\n")

print(df.head(10))

# Optional: Save to CSV

df.to\_csv("emotion\_analysis\_results.csv", index=False).

**OUTPUT:**

| **Part** |  |  |  |  |  |  |  | **Functionality** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ✅ Data Collection |  |  |  |  |  |  |  | Tweets from Twitter API |
|  |  |  |  |  |  |  |  |  |
| ✅ Emotion Detection |  |  |  |  |  |  |  | Using transformers with pre-trained model |
|  |  |  |  |  |  |  |  |  |
| ✅ Storage |  |  |  |  |  |  |  | Saved to CSV |
|  |  |  |  |  |  |  |  |  |
| ✅ Usability |  |  |  |  |  |  |  | Command-line input for keyword |

SAMPLE OUTPUT:

Enter keyword or hashtag to search tweets: mental health

Emotion Analysis Results:

tweet emotion score

0 Mental health is just as important as physical health. joy 0.982

1 I'm feeling overwhelmed and exhausted these days. sadness 0.934

2 It's so frustrating when people ignore mental health issues. anger 0.896

3 Finally went to therapy and I feel hopeful again! joy 0.955

4 Anxiety has been really bad lately, it's hard to cope. fear 0.914

5 Woke up feeling grateful. Taking care of myself today. joy 0.878

6 Sometimes I just feel so empty, like nothing matters. sadness 0.948

7 Mental health awareness should be taught in schools. optimism 0.863

8 Why does nobody take this seriously?! anger 0.911

9 Talking to friends really helped me manage stress. joy 0.892

Emotion Distribution:

joy : ████████████████████████

sadness : ████████████

anger : █████████

fear : ██████

optimism : █████

surprise : █

| **TWEET** | **EMOTIONS** |  |  |  | **SCORE** |
| --- | --- | --- | --- | --- | --- |
| Mental health is just as important as physical health. | joy |  |  |  | 0.982 |
|  |  |  |  |  |  |
| I'm feeling overwhelmed and exhausted these days. | sadness |  |  |  | 0.934 |
| It's so frustrating when people ignore mental health issues. | anger |  |  |  | 0.896 |
|  |  |  |  |  |  |
| Finally went to therapy and I feel hopeful again! | joy |  |  |  | 0.955 |
|  |  |  |  |  |  |
| Anxiety has been really bad lately, it's hard to cope. | fear |  |  |  | 0.914 |
|  |  |  |  |  |  |