

## 13.Source Code

```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
from textblob import TextBlob

# Sample data
data = {
    'username': ['user1', 'user2', 'user3', 'user4', 'user5'],
    'comment': [
        "I'm so happy with the service!",
        "This is the worst thing ever.",
        "I'm scared about what happens next.",
        "What a wonderful surprise!",
        "I don't know how to feel about this."
    ]
}

# Create DataFrame
df = pd.DataFrame(data)

# Polarity using TextBlob
def get_polarity(text):
    return TextBlob(text).sentiment.polarity

# Simple emotion decoder
def decode_emotion(text):
    polarity = TextBlob(text).sentiment.polarity
    if polarity > 0.5:
        return "joy"
    elif polarity < -0.5:
        return "anger"
    else:
        return "neutral"

df['polarity'] = df['comment'].apply(get_polarity)
df['emotion'] = df['comment'].apply(decode_emotion)

# Print result
print(df)

# Plot emotion count
plt.figure(figsize=(6, 4))
sns.countplot(data=df, x='emotion', hue='emotion', palette='Set2', legend=False)
plt.title("Emotion Distribution")
plt.xlabel("Emotion")
plt.ylabel("Count")
plt.tight_layout()
plt.s
```