```python
# Step 1: Install required libraries
!pip install pandas matplotlib seaborn wordcloud

# Step 2: Import libraries
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from wordcloud import WordCloud

# Step 3: Create sample data
data = {
    'tweet_id': [1, 2, 3, 4, 5],
    'tweet_text': [
        "I love the new iPhone! It's amazing. #Apple",
        "The weather today is terrible. I hate it. #Weather",
        "I'm feeling okay about the new policy changes. #Politics",
        "Absolutely love the camera quality on this phone! #Samsung",
        "The service was bad and disappointing. #CustomerService"
    ],
    'sentiment': ['positive', 'negative', 'neutral', 'positive', 'negative']
}

df = pd.DataFrame(data)

# Step 4: Display data
print(df)
print(df['sentiment'].value_counts())

# Step 5: Plot sentiment distribution
plt.figure(figsize=(6,5))
sns.countplot(x='sentiment', data=df, palette='Set2')
plt.title('Sentiment Distribution')
plt.xlabel('Sentiment')
plt.ylabel('Count')
plt.show()

# Step 6: Generate WordClouds for each sentiment
for sentiment in df['sentiment'].unique():
    text = ' '.join(df[df['sentiment'] == sentiment]['tweet_text'])
    wordcloud = WordCloud(width=800, height=400, background_color='white').generate(text)

    plt.figure(figsize=(10,5))
    plt.imshow(wordcloud, interpolation='bilinear')
    plt.axis('off')
    plt.title(f'Word Cloud for {sentiment} Sentiment')
    plt.show()
```

```
et_id                                           tweet_text sentiment
    1           I love the new iPhone! It's amazing. #Apple  positive
    2   The weather today is terrible. I hate it. #Wea...  negative
    3   I'm feeling okay about the new policy changes....   neutral
    4   Absolutely love the camera quality on this pho...  positive
    5   The service was bad and disappointing. #Custom...  negative
ent
ve     2
ve     2
l      1
count, dtype: int64
python-input-2-589133256.py:31: FutureWarning:

g `palette` without assigning `hue` is deprecated and will be removed in v

countplot(x='sentiment', data=df, palette='Set2')
```
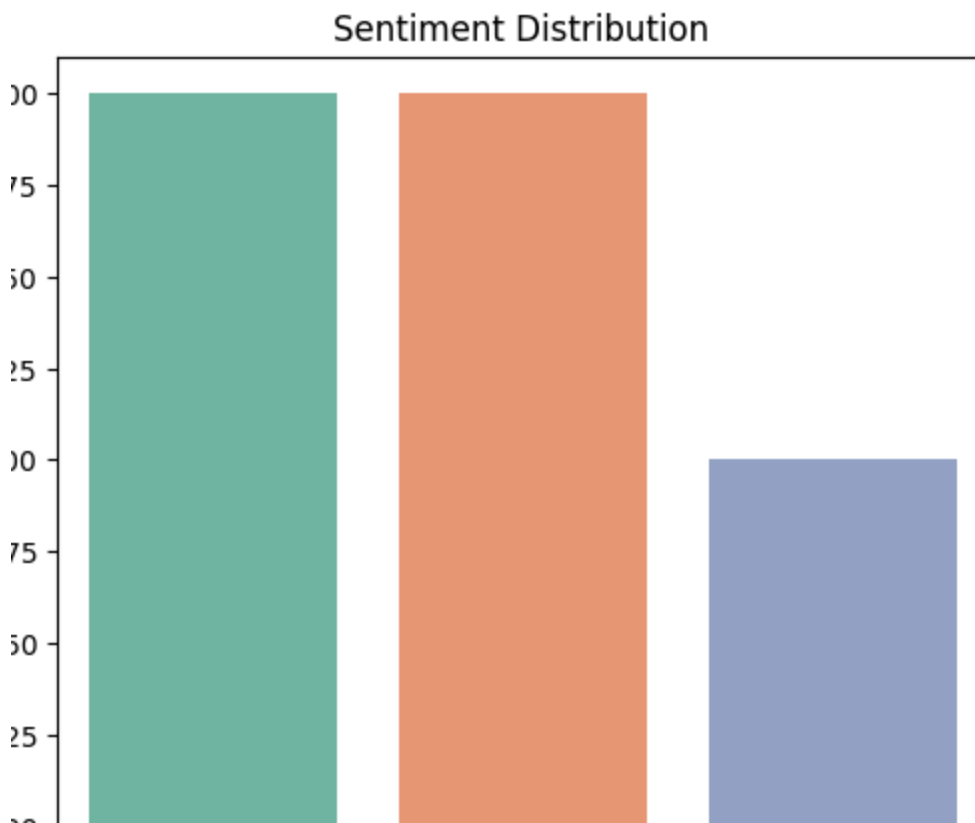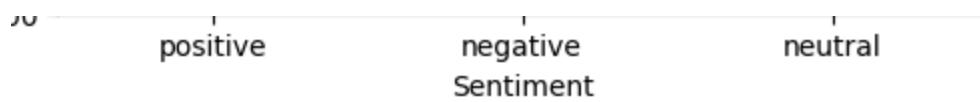
Sentiment Distribution

Word Cloud for positive Sentiment

Samsung phone camera amazing Absolutely iPhone new love apple