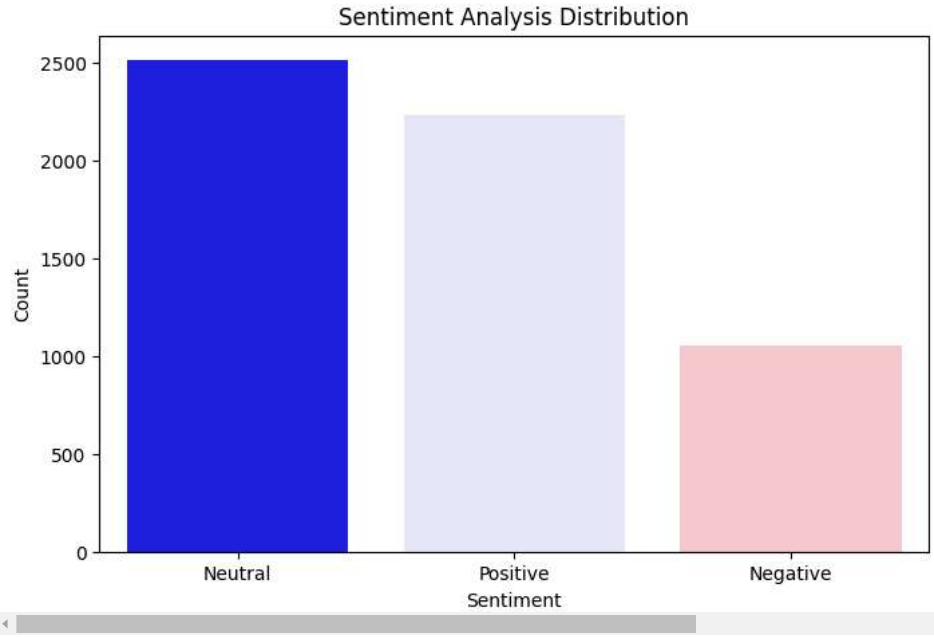
Sentimental data analysis

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

# Load dataset
file_path = "stock_data.csv"  # Update with the correct path if needed
df = pd.read_csv("/content/stock_data.csv")

# Function to analyze sentiment using TextBlob
def get_sentiment(text):
    blob = TextBlob(str(text))
    return blob.sentiment.polarity  # Score between -1 (negative) and +1 (positive)

# Apply sentiment analysis
df["Sentiment Score"] = df["Text"].apply(get_sentiment)

# Categorize sentiment based on polarity
df["Predicted Sentiment"] = df["Sentiment Score"].apply(lambda x: "Positive" if x > 0 else ("Negative" if x < 0 else "Neutral"))

# Compare with existing sentiment labels
df["Actual Sentiment"] = df["Sentiment"].replace({1: "Positive", 0: "Neutral", -1: "Negative"})

# Print sample output
print(df[["Text", "Actual Sentiment", "Predicted Sentiment", "Sentiment Score"]].head())

# Plot sentiment distribution
plt.figure(figsize=(8, 5))
sns.countplot(x="Predicted Sentiment", data=df, palette={"Positive": "lavender", "Negative": "pink", "Neutral": "blue"})
plt.xlabel("Sentiment")
plt.ylabel("Count")
plt.title("Sentiment Analysis Distribution")
plt.show()
```

```
                                                Text Actual Sentiment  \
0  Kickers on my watchlist XIDE TIT SOQ PNK CPW B...         Positive
1  user: AAP MOVIE. 55% return for the FEA/GEED i...         Positive
2  user I'd be afraid to short AMZN - they are lo...         Positive
3                                MNTA Over 12.00             Positive
4                                 OI  Over 21.37             Positive

  Predicted Sentiment  Sentiment Score
0             Neutral              0.0
1            Positive              1.0
2            Negative             -0.3
3             Neutral              0.0
4             Neutral              0.0
<ipython-input-6-38b87569536b>:29: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `x` variable to `hue` and set `le

  sns.countplot(x="Predicted Sentiment", data=df, palette={"Positive": "lavender", "Negative": "pink", "Neutral": "blue"})
```



Start coding or generate with AI.