In [4]:
```
pip install  textblob
```

```
Collecting textblob
  Downloading textblob-0.19.0-py3-none-any.whl.metadata (4.4 kB)
Requirement already satisfied: nltk>=3.9 in d:\anaconda\lib\site-packages (from textblob) (3.9.1)
Requirement already satisfied: click in d:\anaconda\lib\site-packages (from nltk>=3.9->textblob) (8.1.7)
Requirement already satisfied: joblib in d:\anaconda\lib\site-packages (from nltk>=3.9->textblob) (1.4.2)
Requirement already satisfied: regex>=2021.8.3 in d:\anaconda\lib\site-packages (from nltk>=3.9->textblob) (2024
.9.11)
Requirement already satisfied: tqdm in d:\anaconda\lib\site-packages (from nltk>=3.9->textblob) (4.66.5)
Requirement already satisfied: colorama in d:\anaconda\lib\site-packages (from click->nltk>=3.9->textblob) (0.4.
6)
Downloading textblob-0.19.0-py3-none-any.whl (624 kB)
   ---------------------------------------- 0.0/624.3 kB ? eta -:--:--
   ---------------------------------------- 0.0/624.3 kB ? eta -:--:--
   --------------- ----------------------- 262.1/624.3 kB ? eta -:--:--
   ---------------------------------------- 624.3/624.3 kB 965.7 kB/s eta 0:00:00
Installing collected packages: textblob
Successfully installed textblob-0.19.0
Note: you may need to restart the kernel to use updated packages.
```

In [10]:
```
import pandas as pd
from textblob import TextBlob
import matplotlib.pyplot as plt
import seaborn as sns

# Sample review data
data = {
    'review_id': [1, 2, 3, 4, 5, 6, 7],
    'review_text': [
        "This product is amazing and works perfectly!",
        "I hate this item. Total waste of money.",
        "It’s okay, not great but not terrible.",
        "Excellent service and fast delivery.",
        "Really disappointed with the quality.",
        "Not what I expected, quite poor overall.",

        "Terrible. It broke after one use."
    ]
}

# Create DataFrame
df = pd.DataFrame(data)

# Compute sentiment polarity
df['polarity'] = df['review_text'].apply(lambda text: TextBlob(text).sentiment.polarity)

# Classify polarity into sentiment
df['sentiment'] = df['polarity'].apply(lambda p: 'Positive' if p > 0.1 else ('Negative' if p < -0.1 else 'Neutra

# Print the full DataFrame
print(df)
```

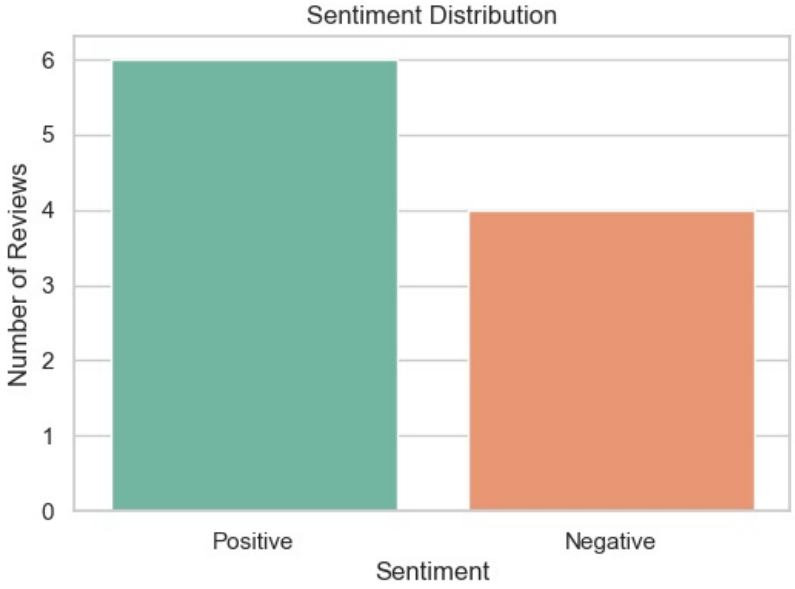
```
   review_id                                review_text  polarity sentiment
0          1  This product is amazing and works perfectly!  0.800000  Positive
1          2       I hate this item. Total waste of money. -0.333333  Negative
2          3        It’s okay, not great but not terrible.  0.200000  Positive
3          4          Excellent service and fast delivery.  0.600000  Positive
4          5         Really disappointed with the quality. -0.750000  Negative
5          6      Not what I expected, quite poor overall. -0.166667  Negative
6          7             Terrible. It broke after one use. -1.000000  Negative
```

In [6]:
```
# --- Visualization 1: Sentiment Count ---
plt.figure(figsize=(6, 4))
sns.countplot(data=df, x='sentiment', palette='Set2')
plt.title('Sentiment Distribution')
plt.xlabel('Sentiment')
plt.ylabel('Number of Reviews')
plt.show()
```

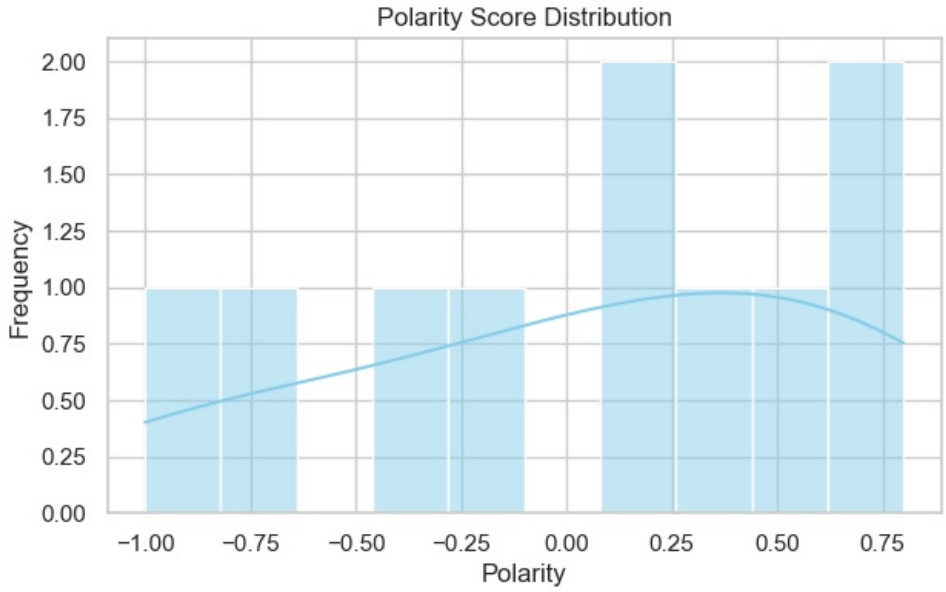
```
C:\Users\ELCOT\AppData\Local\Temp\ipykernel_13176\2490111867.py:3: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `x` variable
to `hue` and set `legend=False` for the same effect.

  sns.countplot(data=df, x='sentiment', palette='Set2')
```



In [7]:
```
# --- Visualization 2: Polarity Score Distribution ---
plt.figure(figsize=(7, 4))
sns.histplot(df['polarity'], bins=10, kde=True, color='skyblue')
plt.title('Polarity Score Distribution')
plt.xlabel('Polarity')
plt.ylabel('Frequency')
plt.show()
```



In [ ]: