

```
In [9]: import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

# Load results from Athena
df = pd.read_csv("results.csv")

# Ensure Date column is datetime
df['Date'] = pd.to_datetime(df['Date'])

# Set style
sns.set(style="whitegrid")

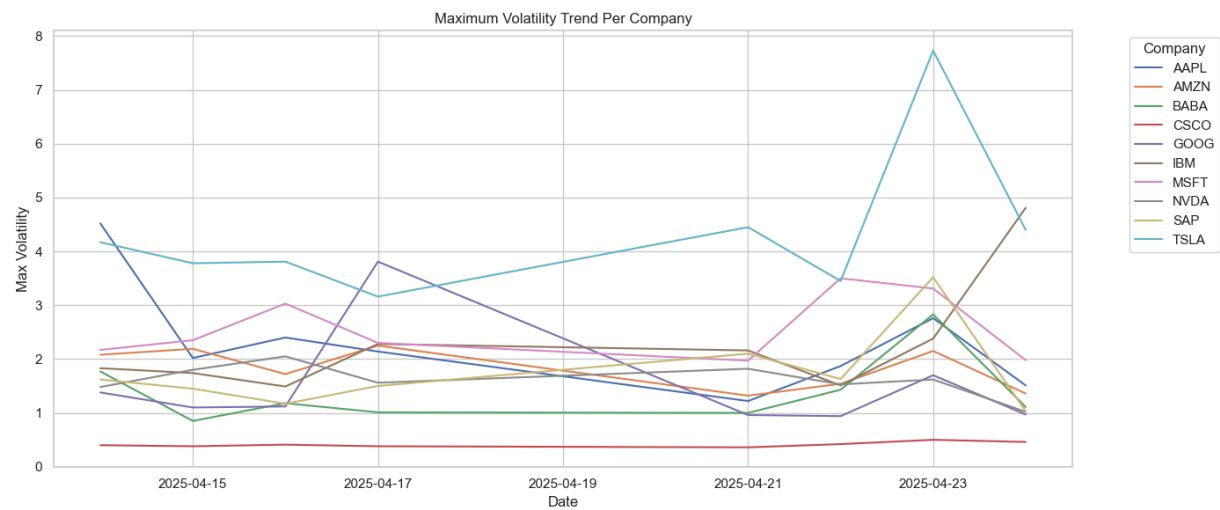
# 1) Line Chart: Maximum Volatility Trend per Company
plt.figure(figsize=(14, 6))
for company in df['Company'].unique():
    subset = df[df['Company'] == company]
    plt.plot(subset['Date'], subset['Max_Volatility'], label=company)

plt.title("Maximum Volatility Trend Per Company")
plt.xlabel("Date")
plt.ylabel("Max Volatility")
plt.legend(title="Company", bbox_to_anchor=(1.05, 1), loc='upper left')
plt.tight_layout()
plt.show()

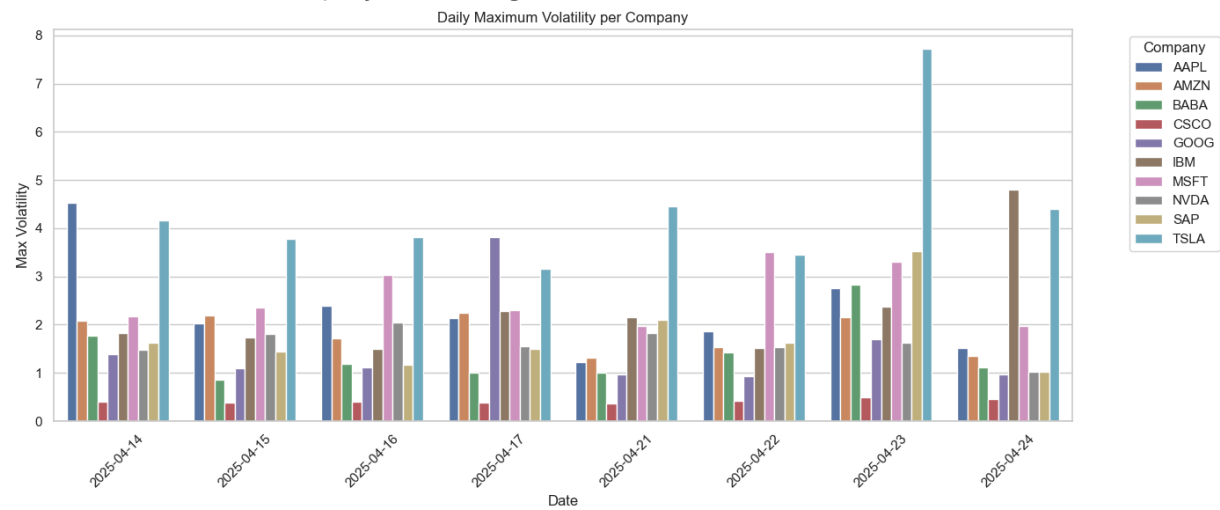
# Identify the most volatile company
avg_max_vol = df.groupby('Company')['Max_Volatility'].mean().sort_values(ascending=
most_volatile = avg_max_vol.idxmax()
print(f"The most volatile company on average is: {most_volatile}")

# 2) Grouped Bar Chart: Daily Max Volatility per Company
plt.figure(figsize=(14, 6))
sns.barplot(
    data=df,
    x="Date",
    y="Max_Volatility",
    hue="Company"
)

plt.title("Daily Maximum Volatility per Company")
plt.xlabel("Date")
plt.ylabel("Max Volatility")
plt.legend(title="Company", bbox_to_anchor=(1.05, 1), loc='upper left')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()
```



The most volatile company on average is: TSLA



In []: #2. It does support my conclusion from the first graph because Tesla has the highest