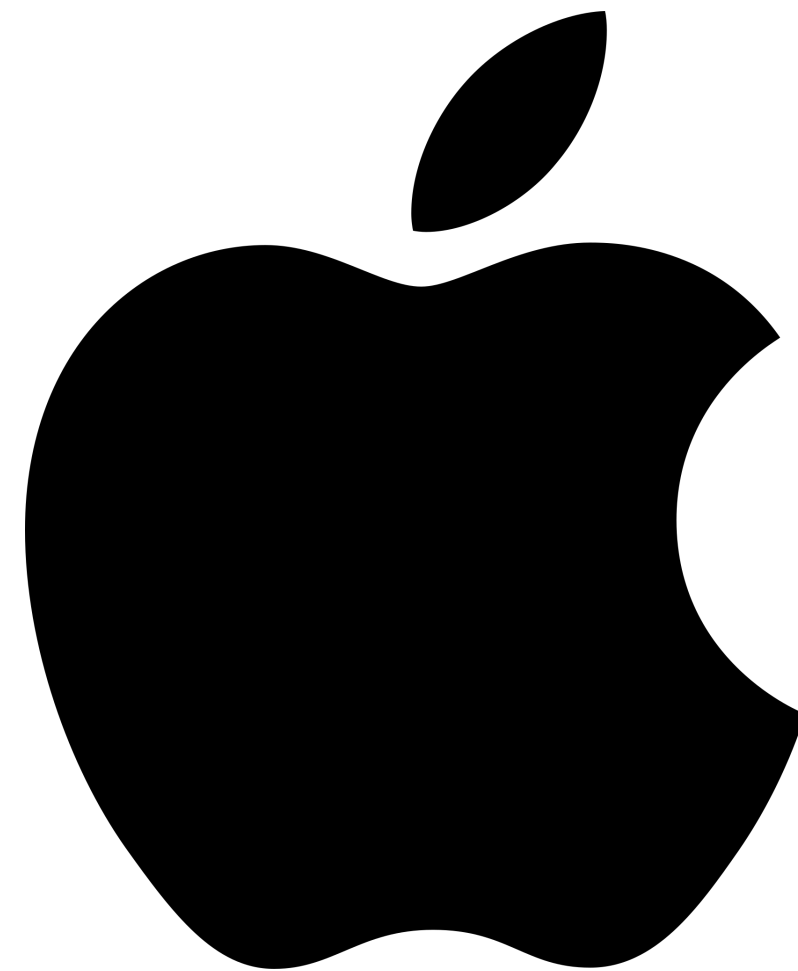# Analysis of Twitter User Sentiment of iPhone14 and iPhone14Pro

Team: Avinash Chekuru, Jamison Proctor, Ling Yee Khor, Michael Flury

Background: On September 7th, 2022, Apple Inc. (AAPL) announced two new products, the iPhone 14 and the iPhone 14 Pro.
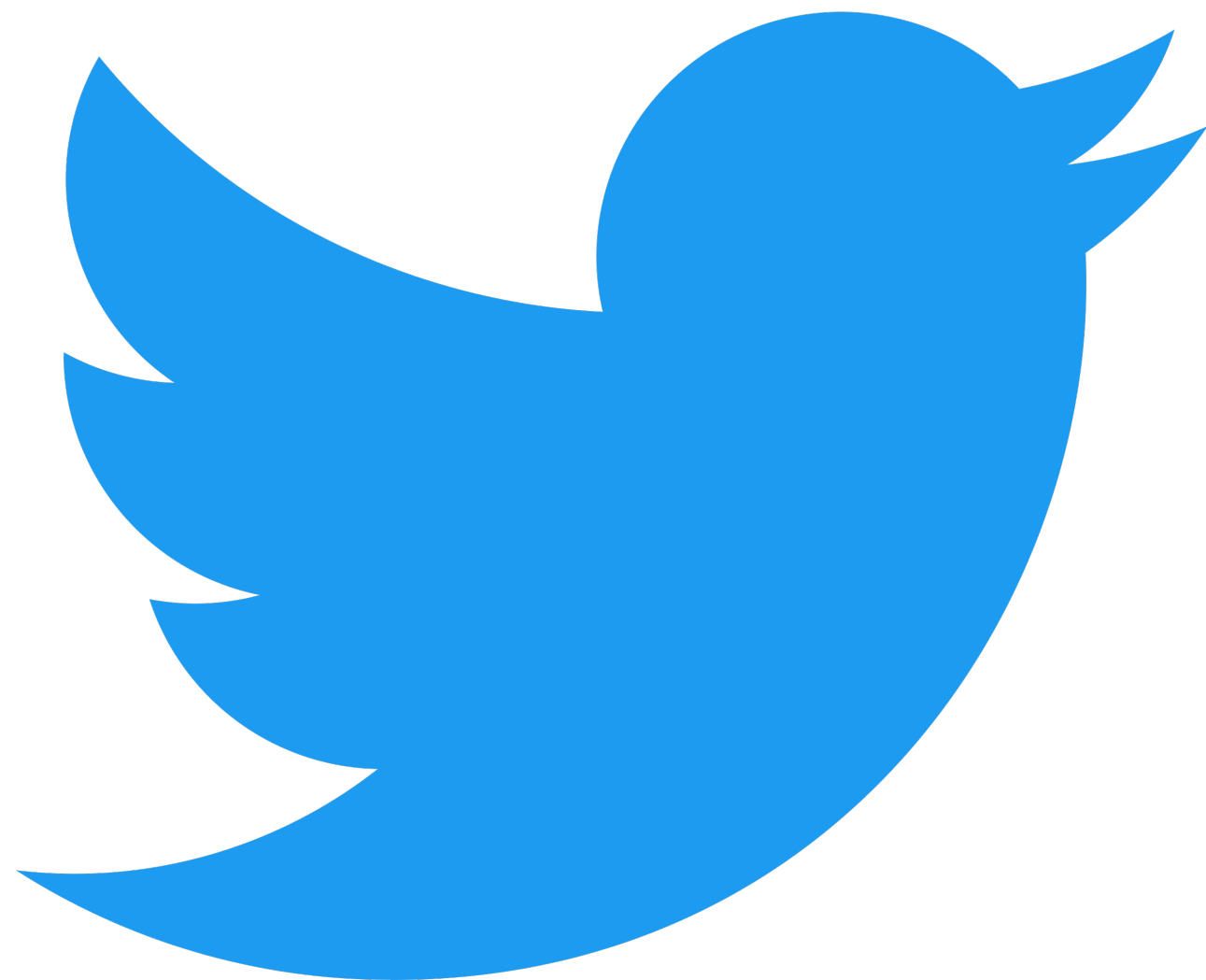

iPhone 14

iPhone 14 Pro

Task: Team is to scrape the Twitter API and capture Twitter user sentiment by searching for tweets with #iPhone14 and #iPhone14Pro.

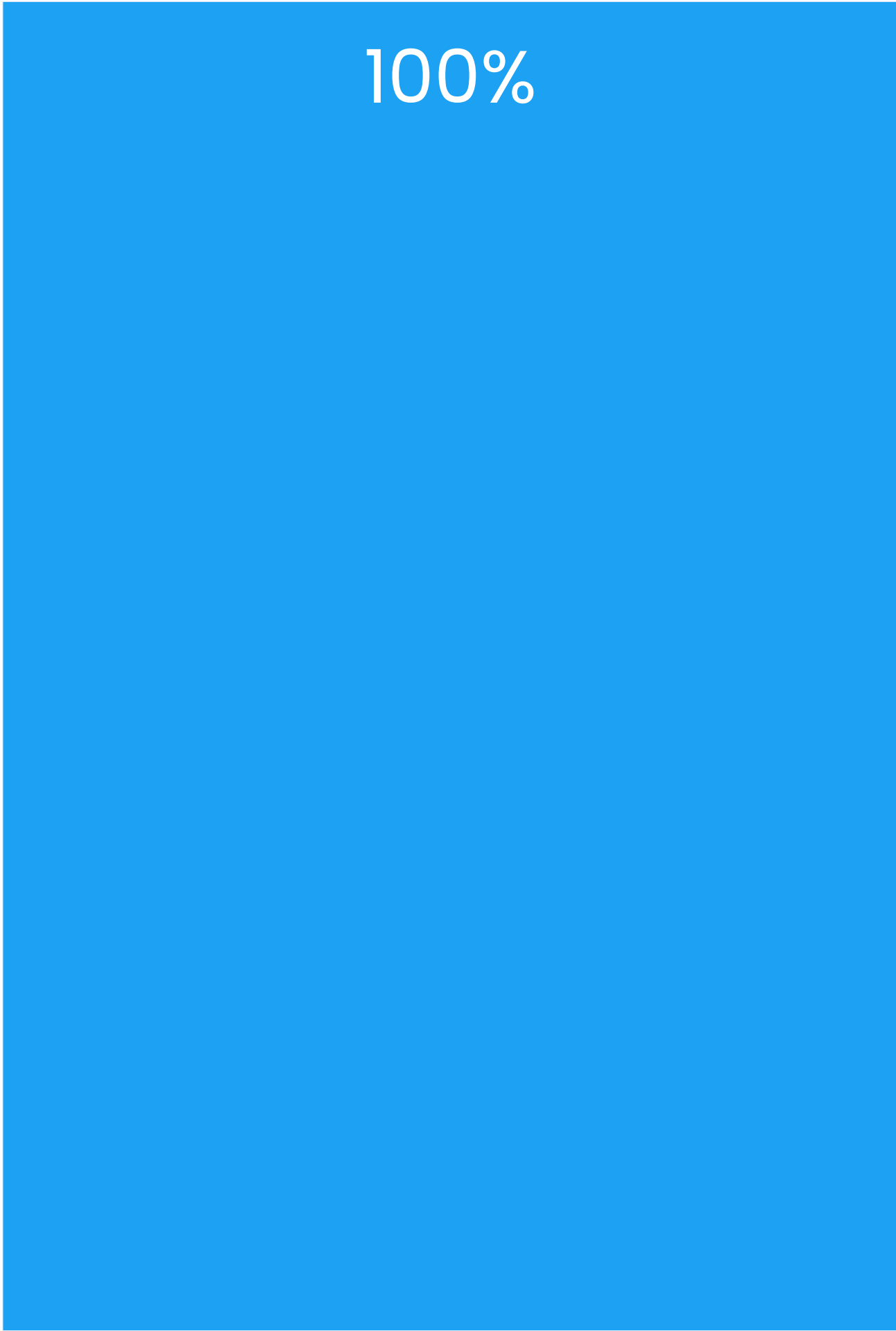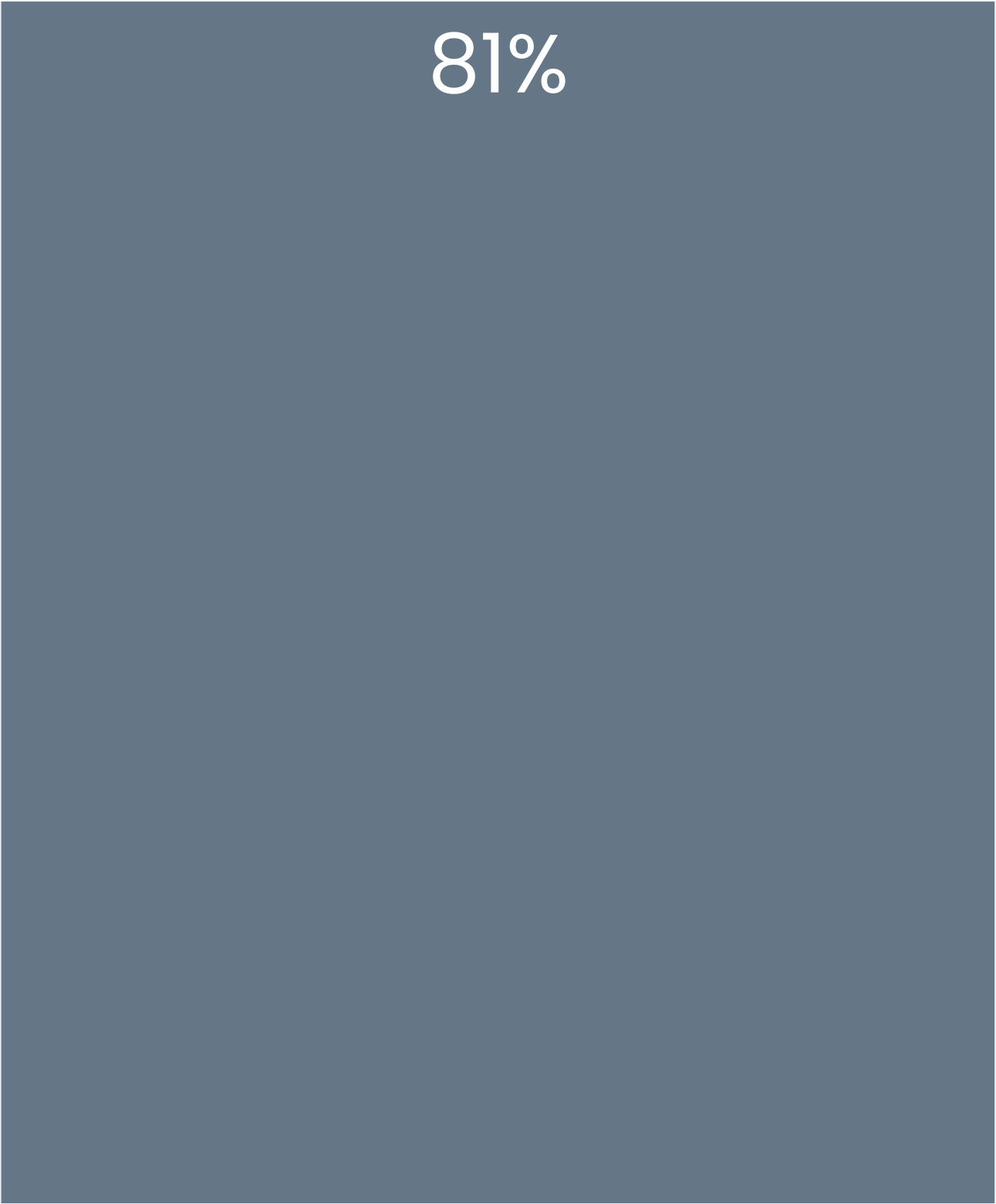What is Twitter saying about the iPhone 14 and iPhone 14 Pro?

Process:

- Use Tweepy to capture 10K tweets for both '#iPhone14' and '#iPhone 14 Pro'.
- Do exploritory analysis of the data collected.
- Clean data for sentiment analysis.
- Complete sentiment analysis.
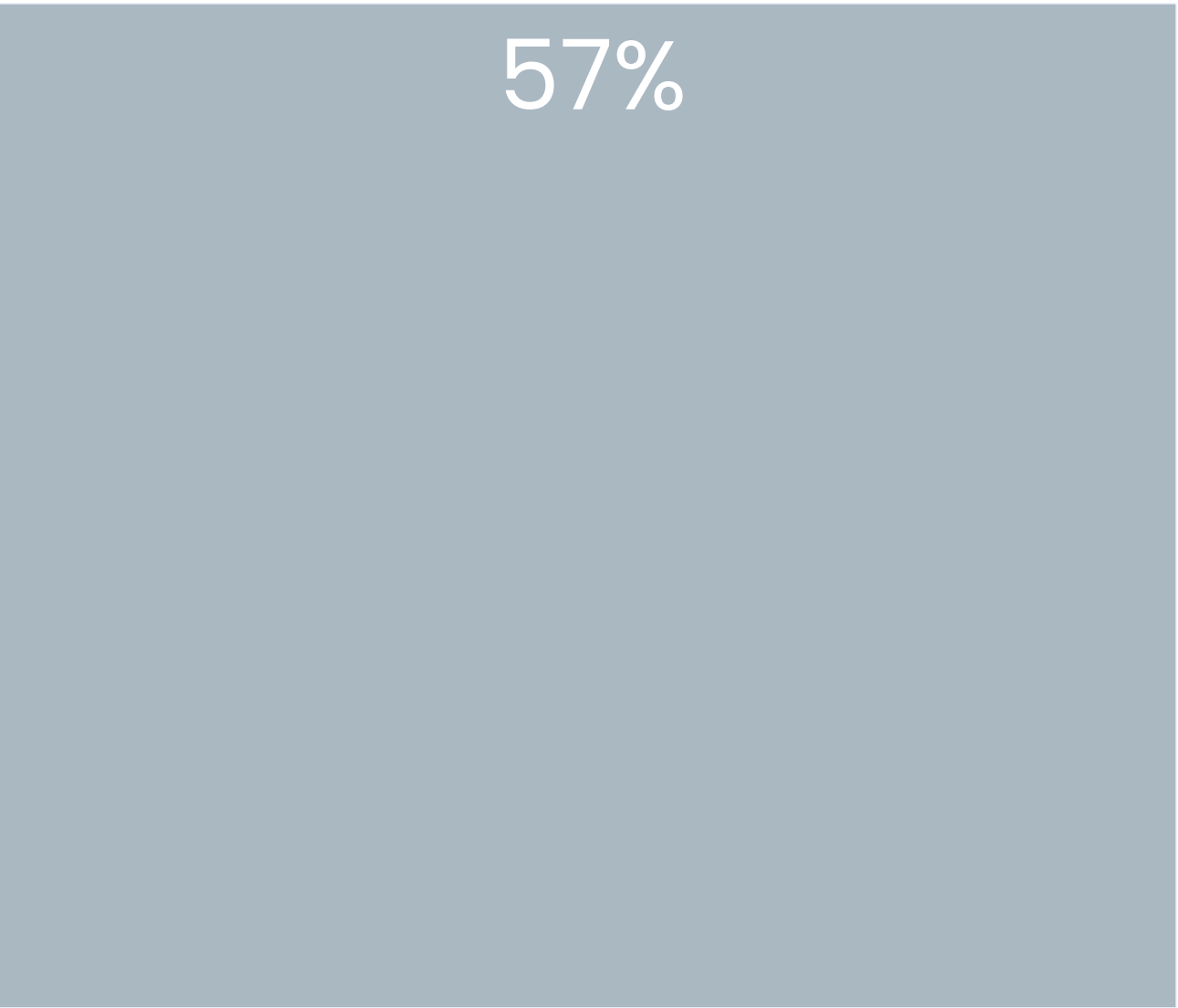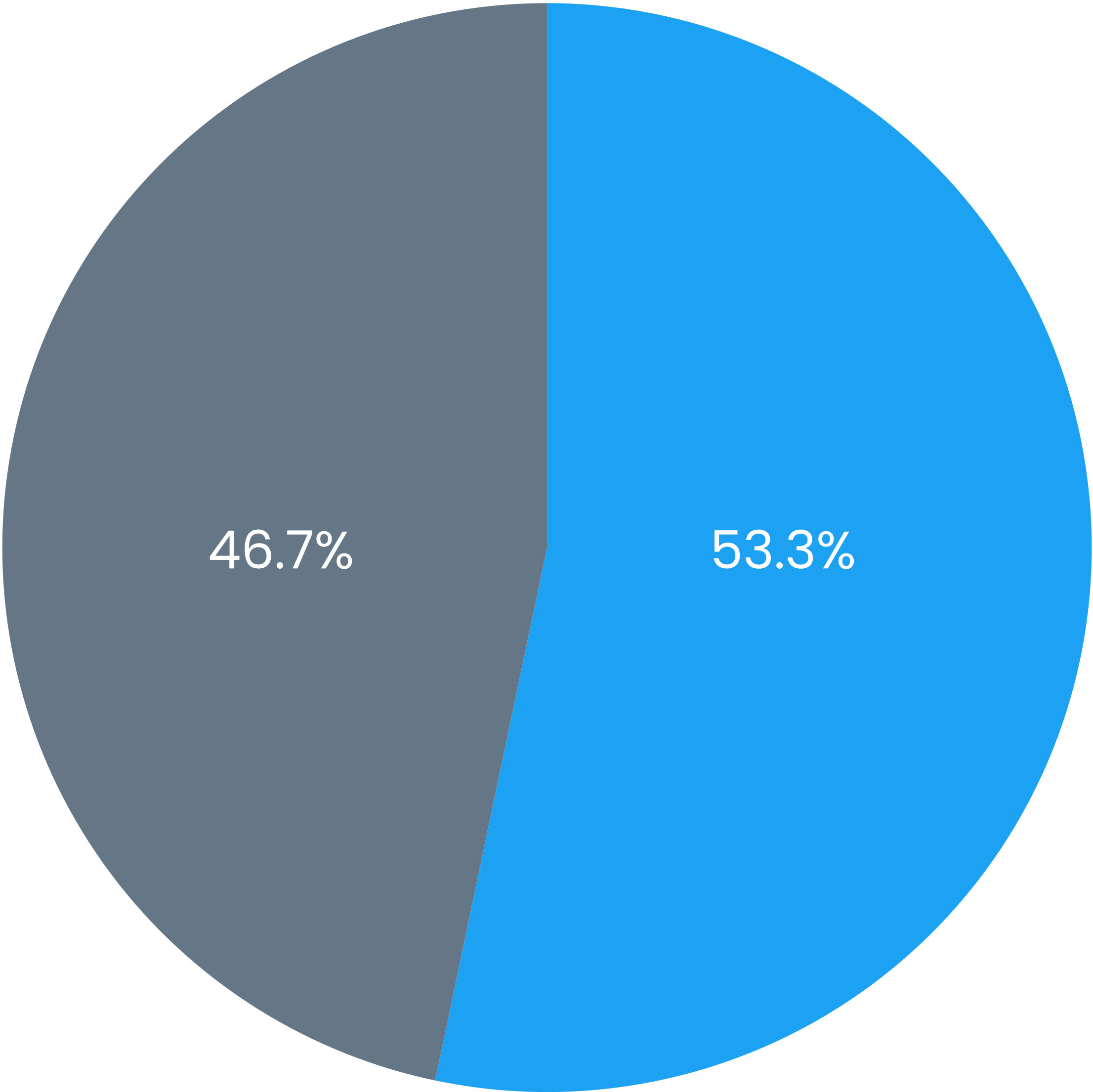- Report findings to team.

Data Set Description

8000 Tweets

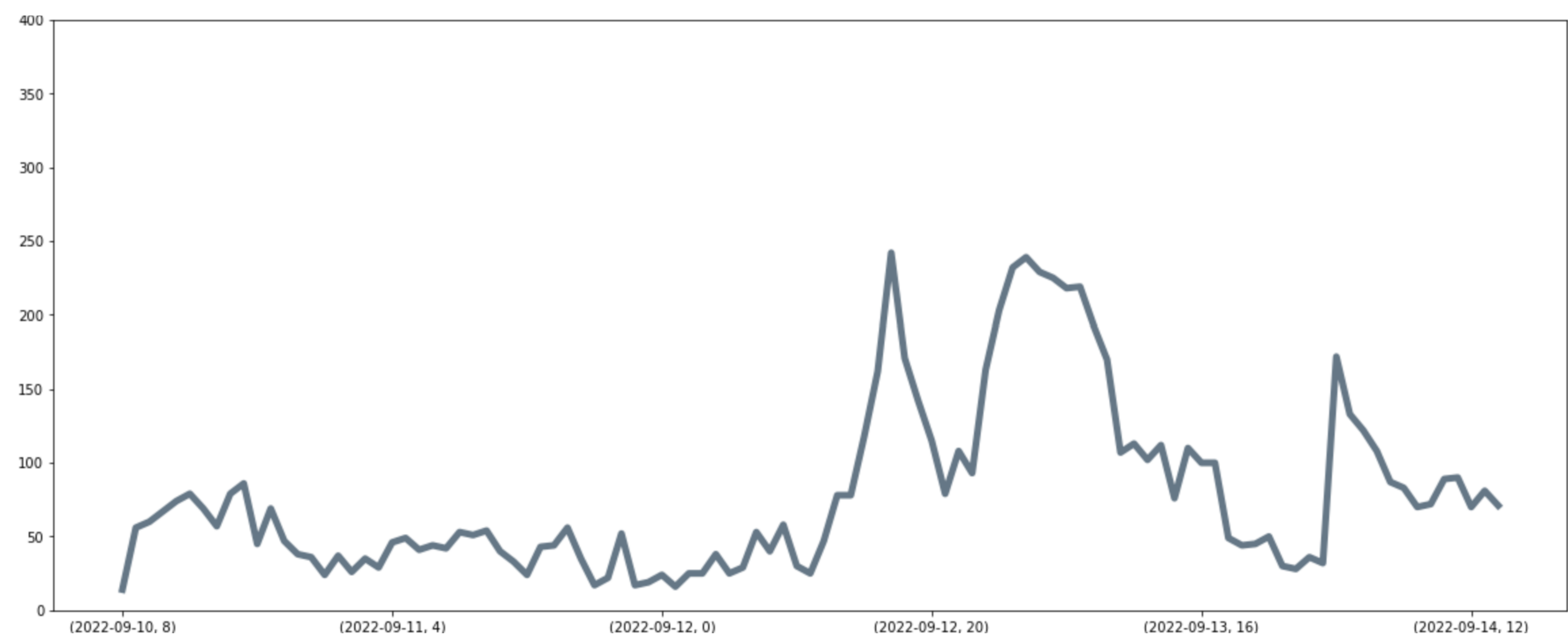100% — Total Tweets
81% — Tweets from Unique Users
57% — Retweets
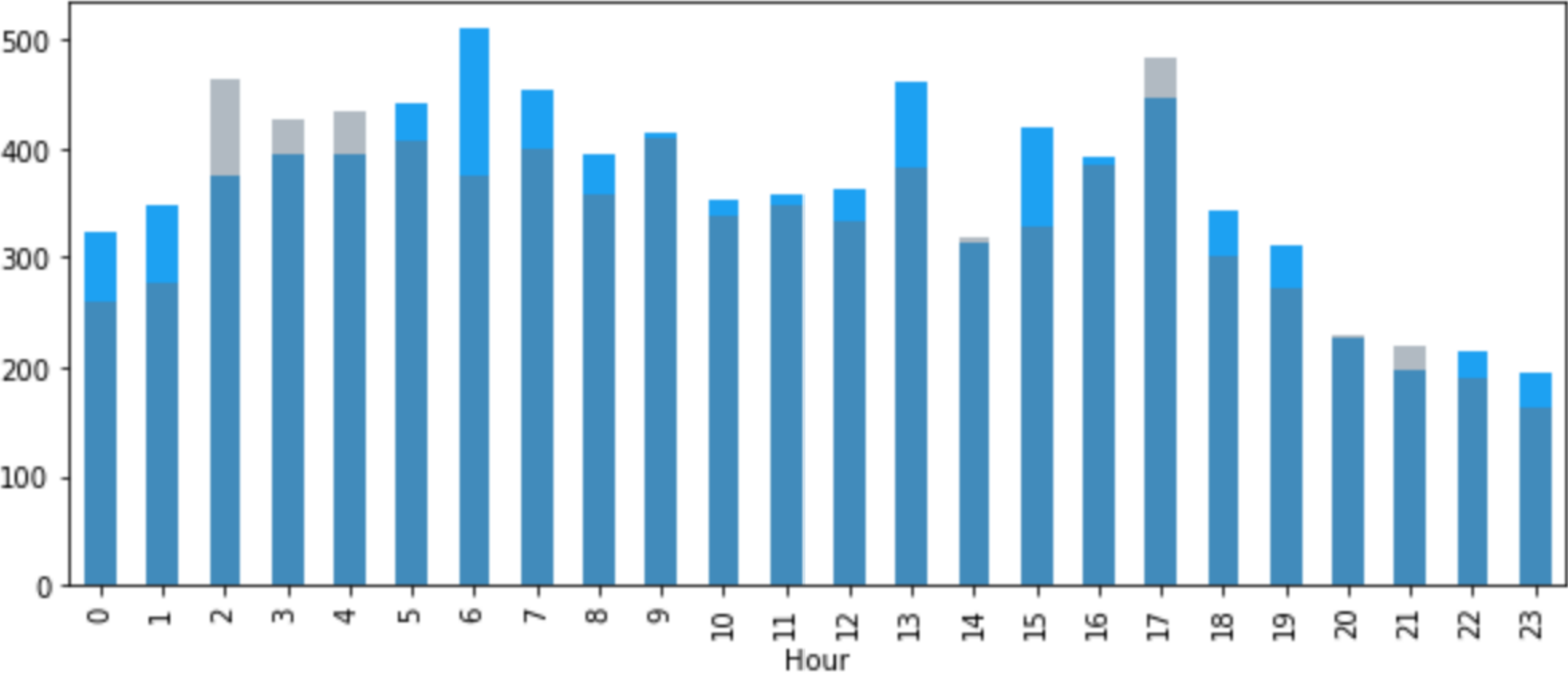
#iPhone14 vs. #iPhone14Pro

46.7%

53.3%

- iPhone 14
- iPhone 14 Pro

Tweets over Total Period
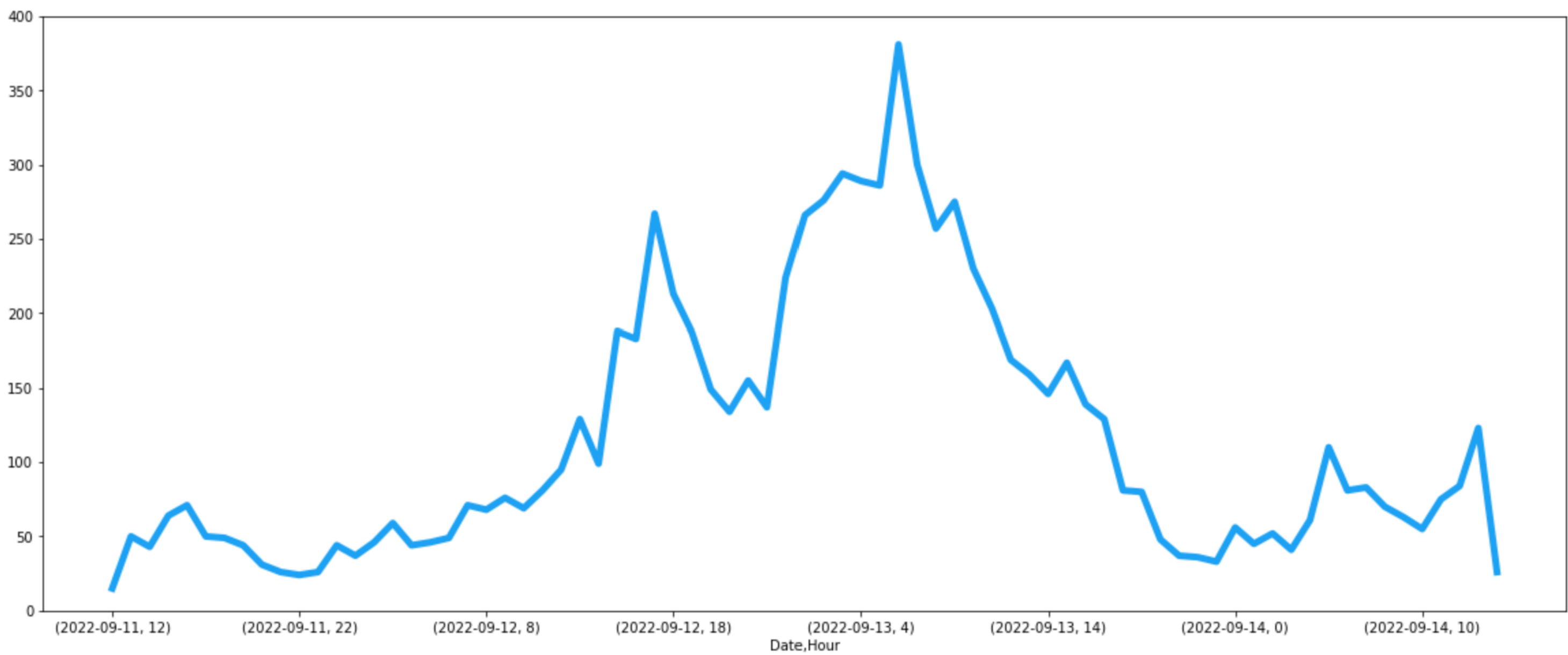
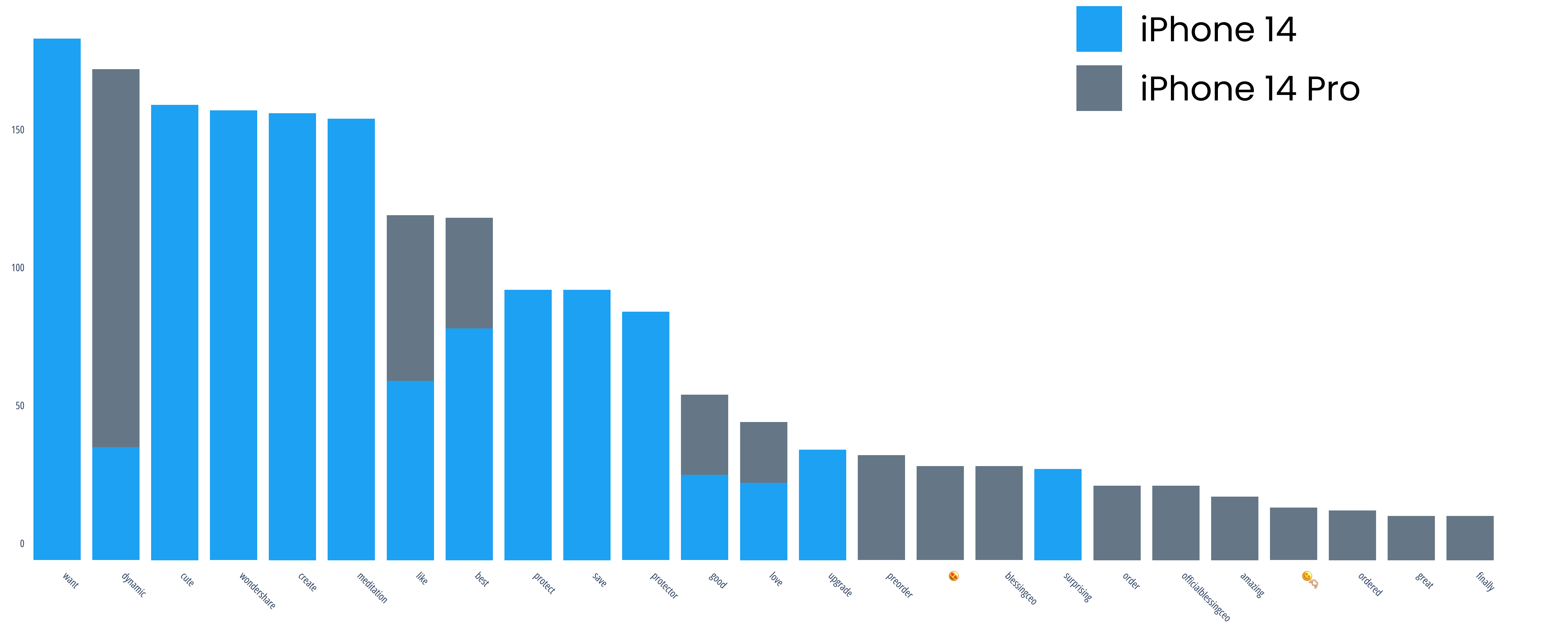Tweets over the Day
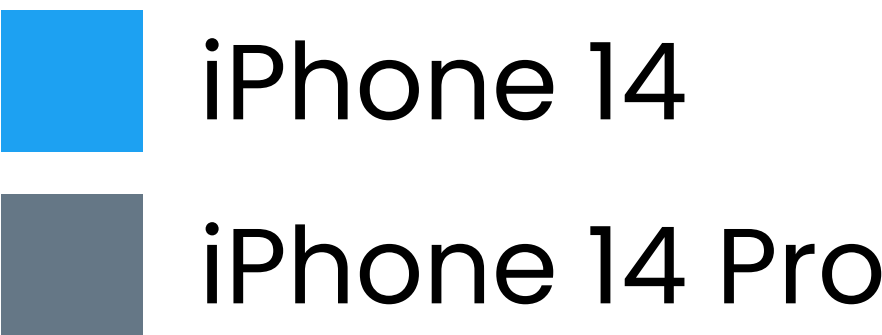
Approach for Sentiment Analysis

- Split each tweet into individual words.
- Remove non-word content (e.g. URLs, #Tags, @user, etc.).
- Remove "Stop Words".
- Find the most commly used words in tweets with #iPhone14 and #iPhone14Pro.
- Manually tag each word as either, 'Positive', 'Negative', or 'Neutral'
- Count the positive words and compare between #iPhone14 and #iPhone14Pro

Most Common Positive Words

Legend:
- iPhone 14 (blue)
- iPhone 14 Pro (gray)

X-axis labels: want, dynamic, cute, wondershare, create, meditation, like, best, protect, save, protector, good, love, upgrade, preorder, 🤗, blessingceo, surprising, order, officialblessingceo, amazing, 🤳, ordered, great, finally

Y-axis: 0, 50, 100, 150

Comparison of Positive-Word Total-Counts

1500 words

iPhone 14

iPhone 14 Pro

iPhone 14

iPhone 14 Pro

Conclusions

- Initial data capture created issues with comparison.
- A surprising portion of the tweets captured were retweets.
- Total number of tweets was similar between groups.
- The positive words used to describe two groups did not have much overlap.
- Despite the balance of number of tweets between groups being similar, there were substantially more positive words related to the iPhone 14 than the iPhone 14 Pro.