

Sentiment Analysis of Airline Tweets


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A large orange hexagon is the central focus, with a smaller light blue hexagon above it, a white outline hexagon to its left, and a small orange hexagon below it.

“Thank your customer for complaining and mean it. Most will never bother to complain. They’ll just walk away.”

Marilyn Suttle



Structure



Overview

The goal of the project was to correctly classify the sentiment of the tweets in order to better understand the customer base of an airline in order to improve its customer service.






Optimum
Sentiment
Classification

Primary goal



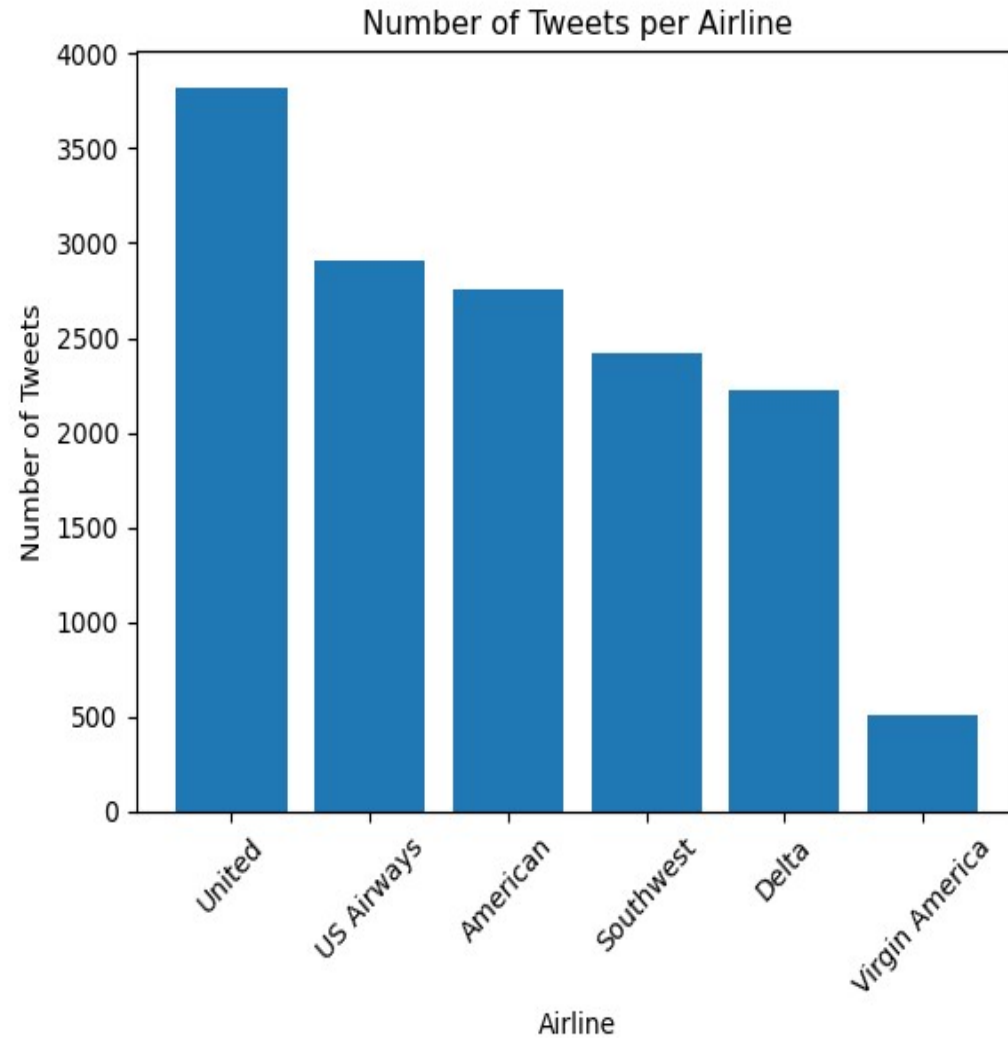
Methods



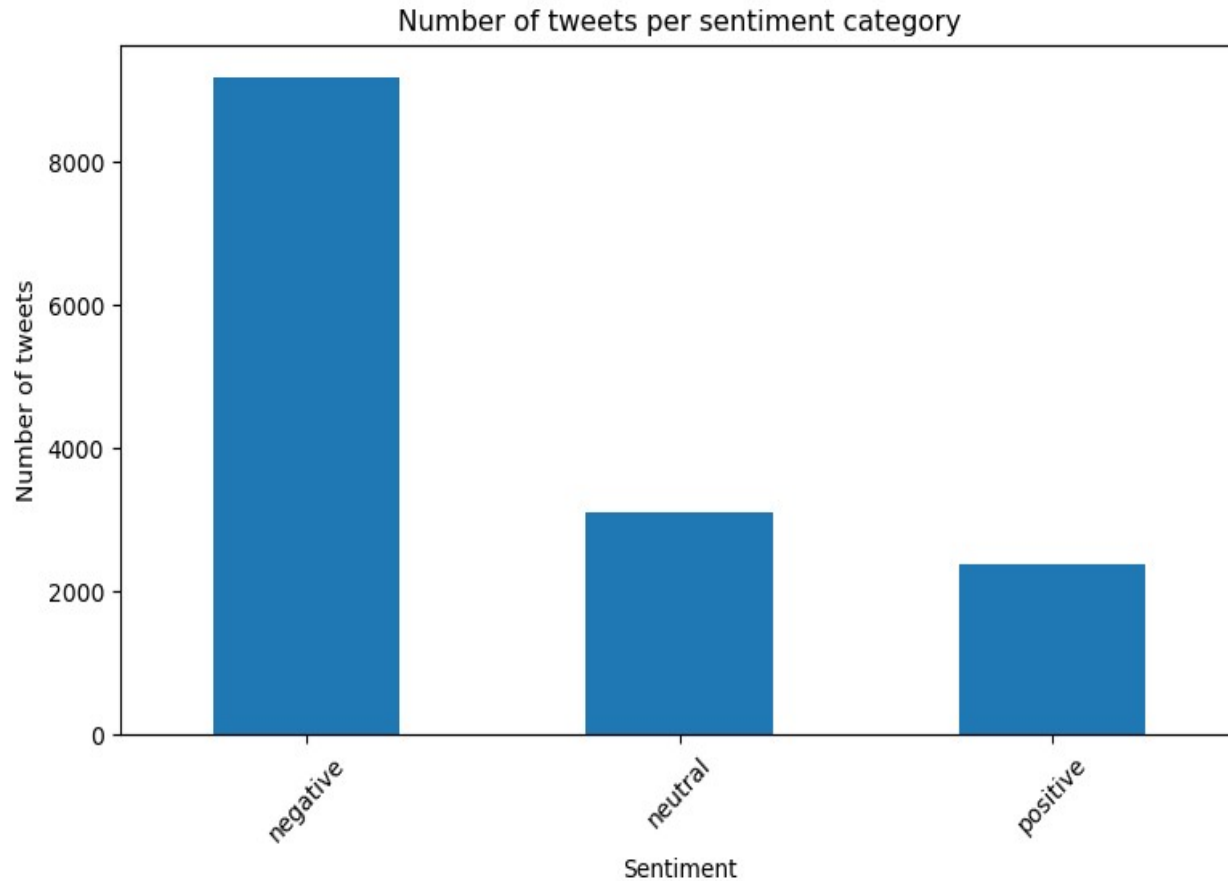
What did
we
achieve?

Results

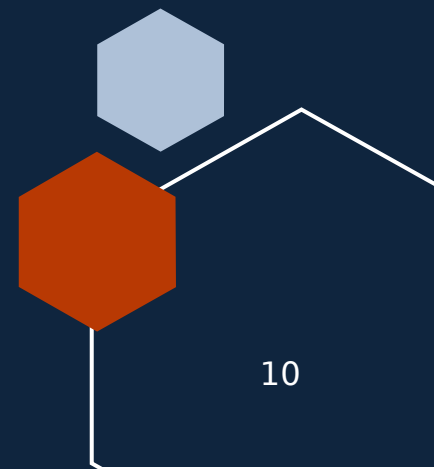
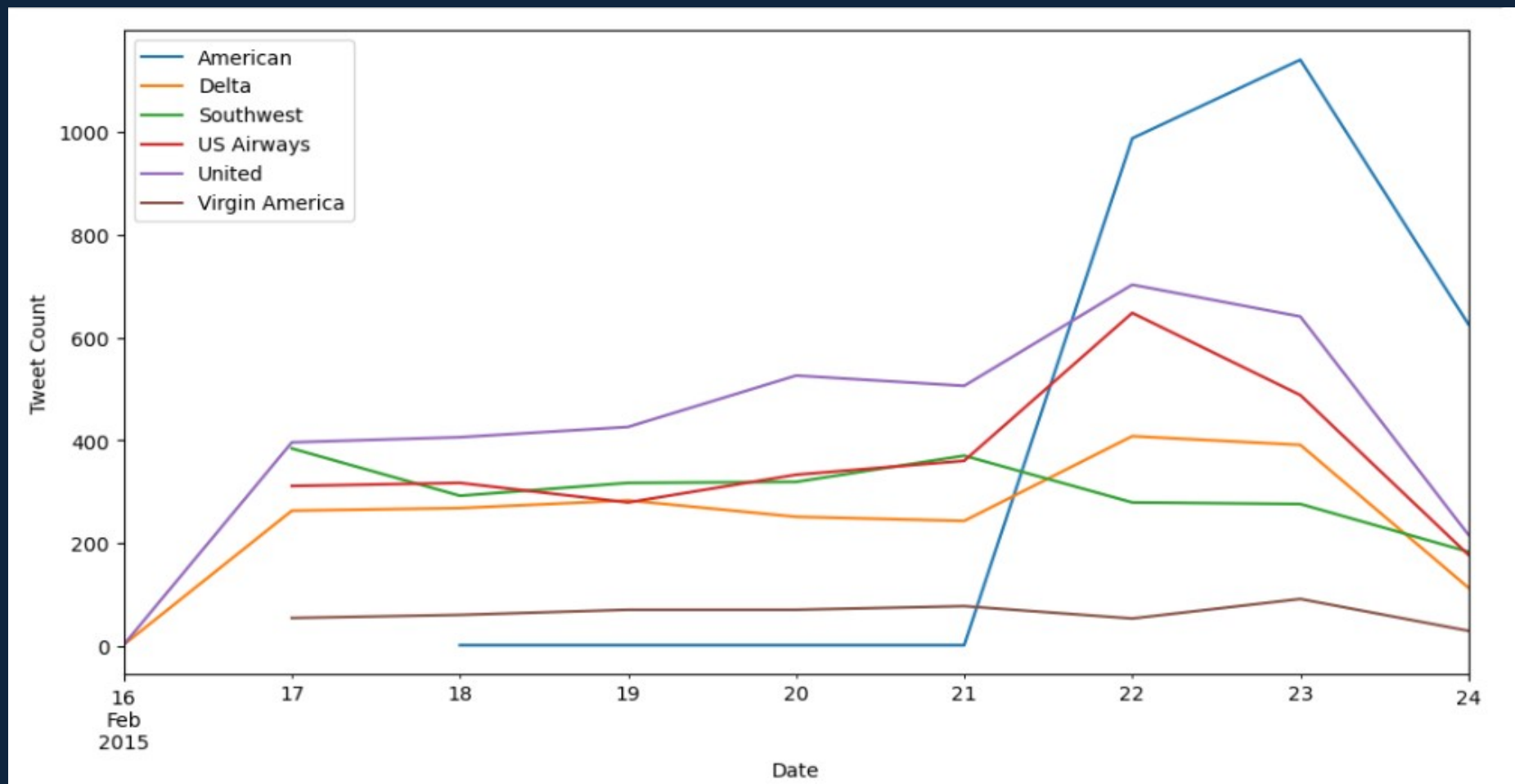
Number of tweets per Airline



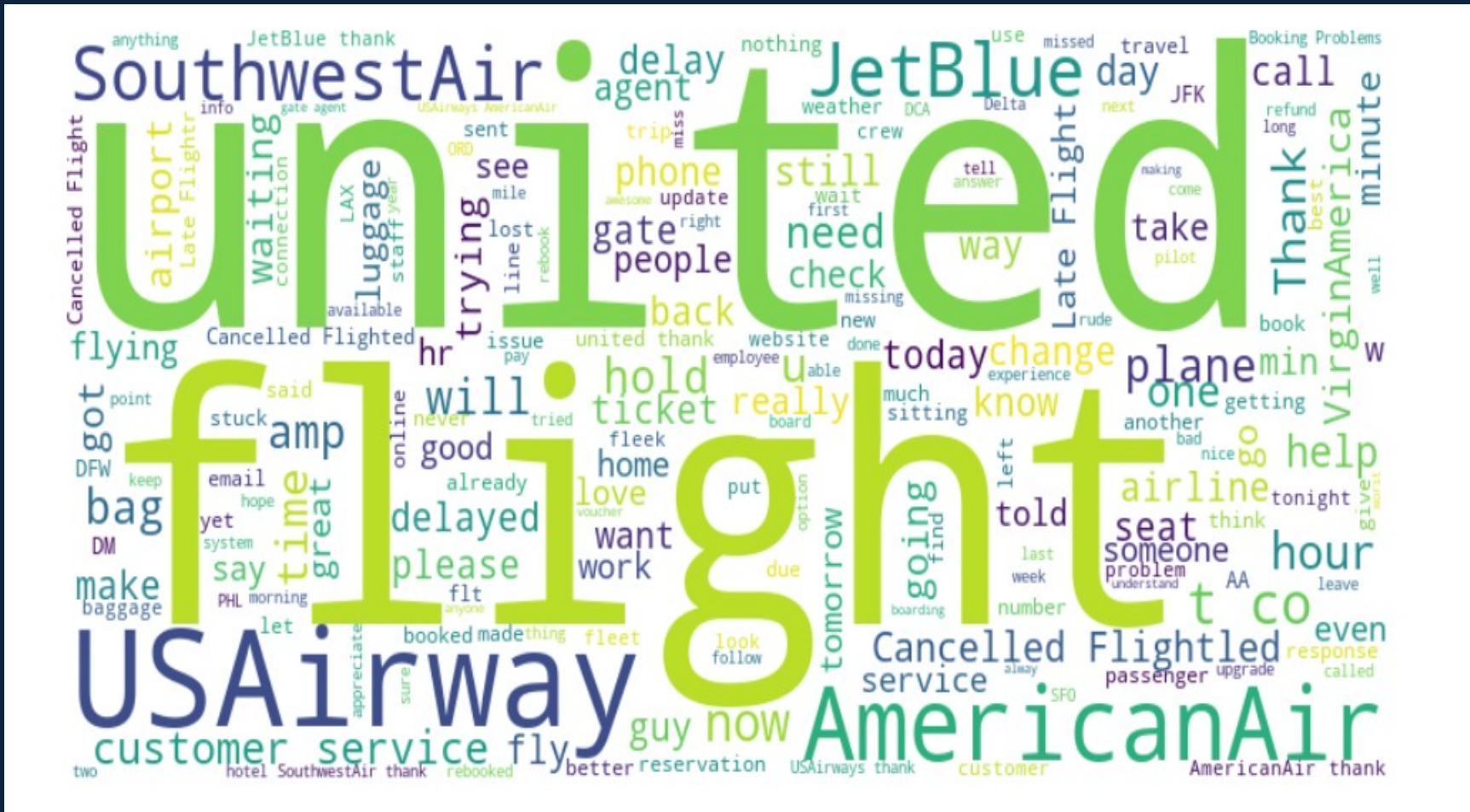
Count of Sentiment(Original dataset)



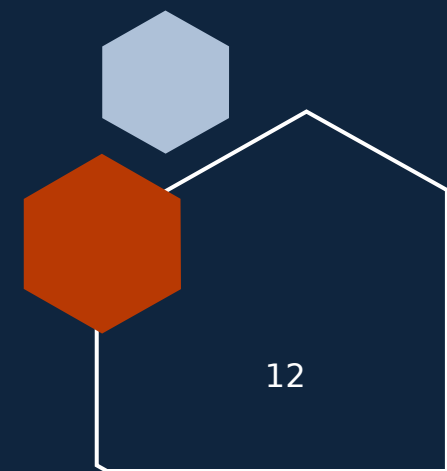
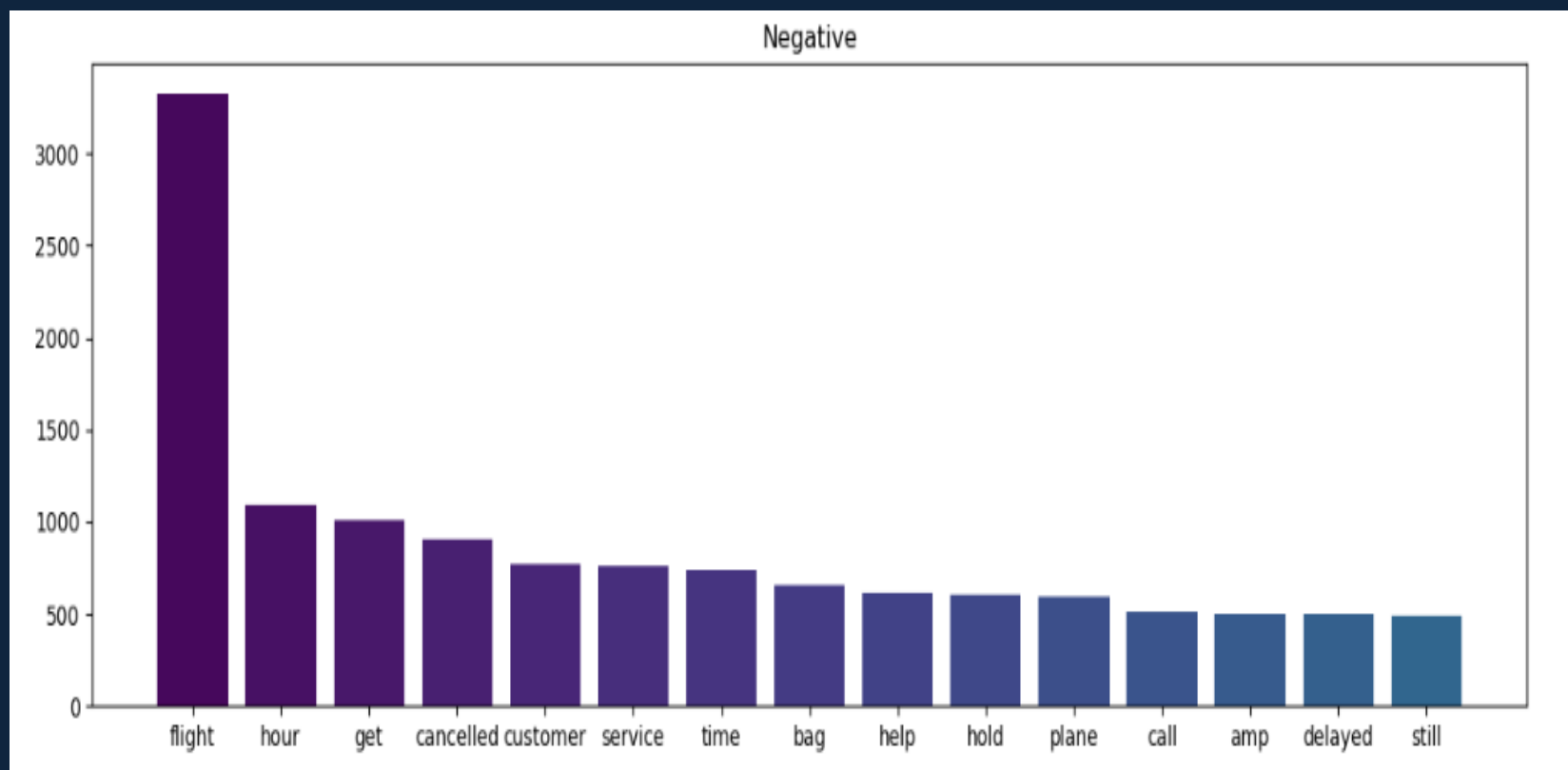
Tweets trend over time by Airline



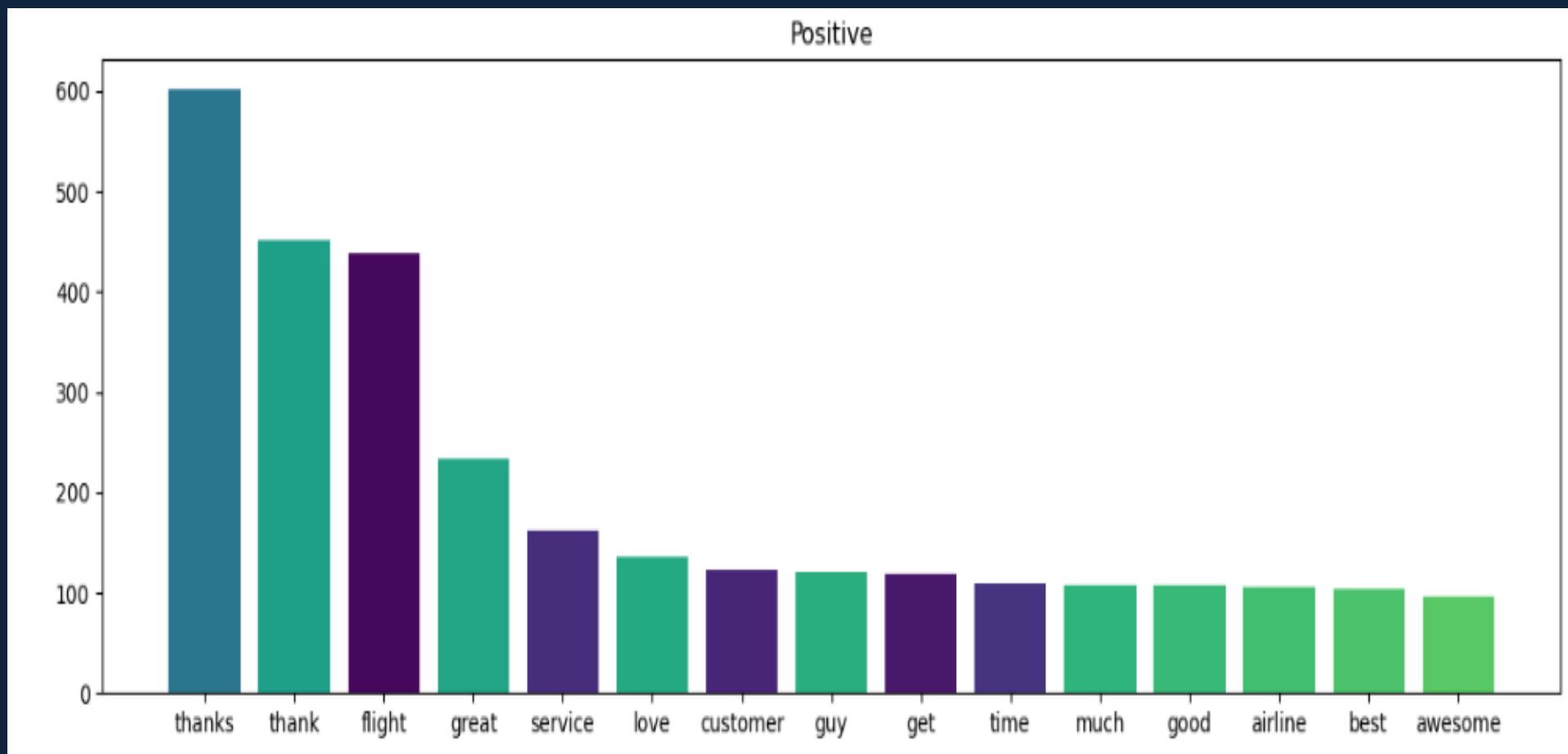
Most common words in Dataset



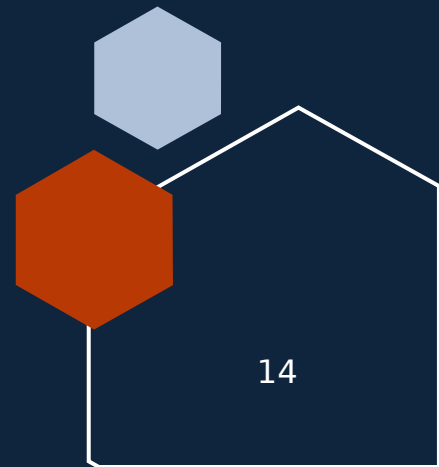
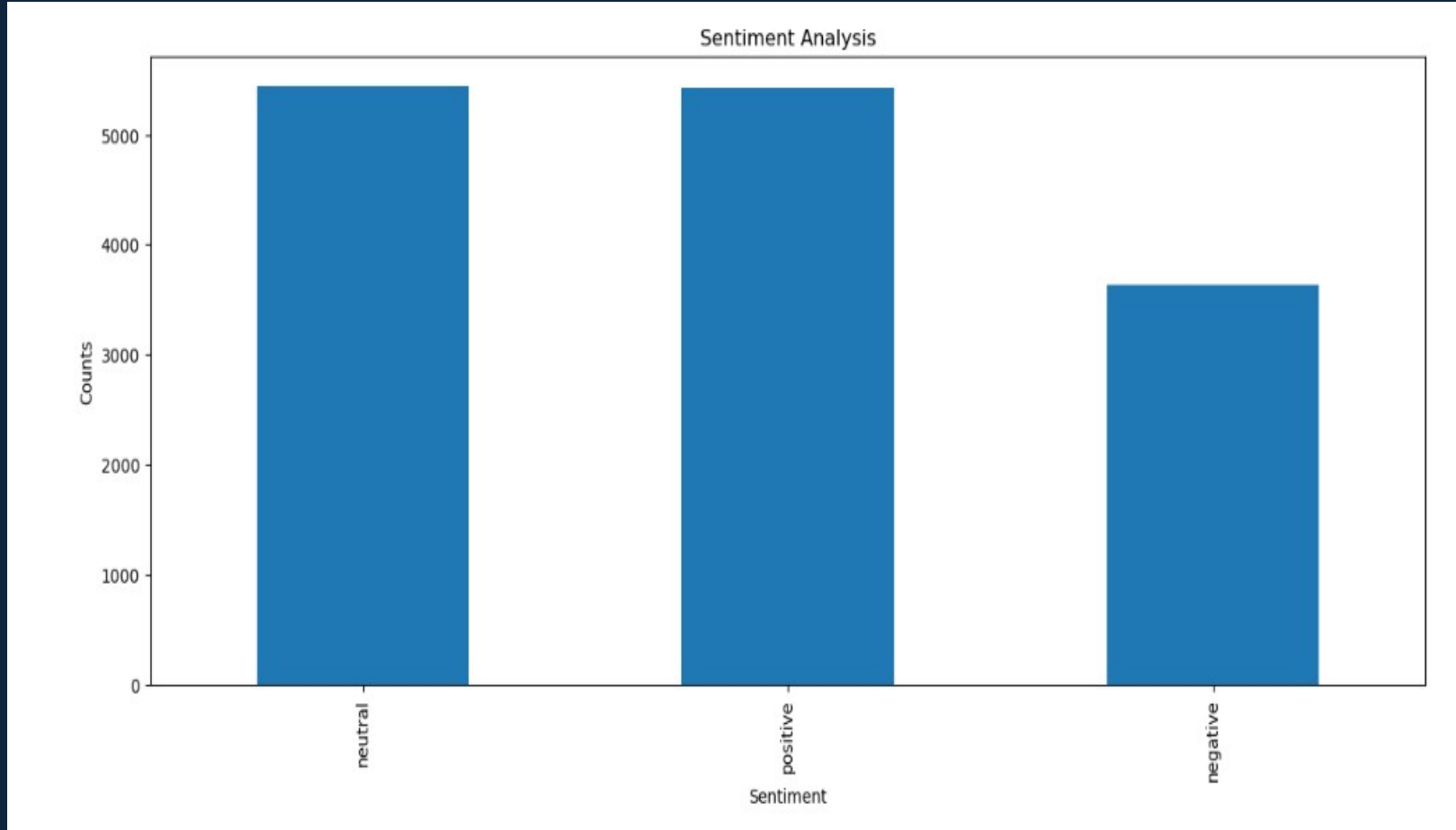
Top words in Negative tweets



Top words in Positive tweets



Count of Sentiment(Analysis)





Modeling and Evaluation

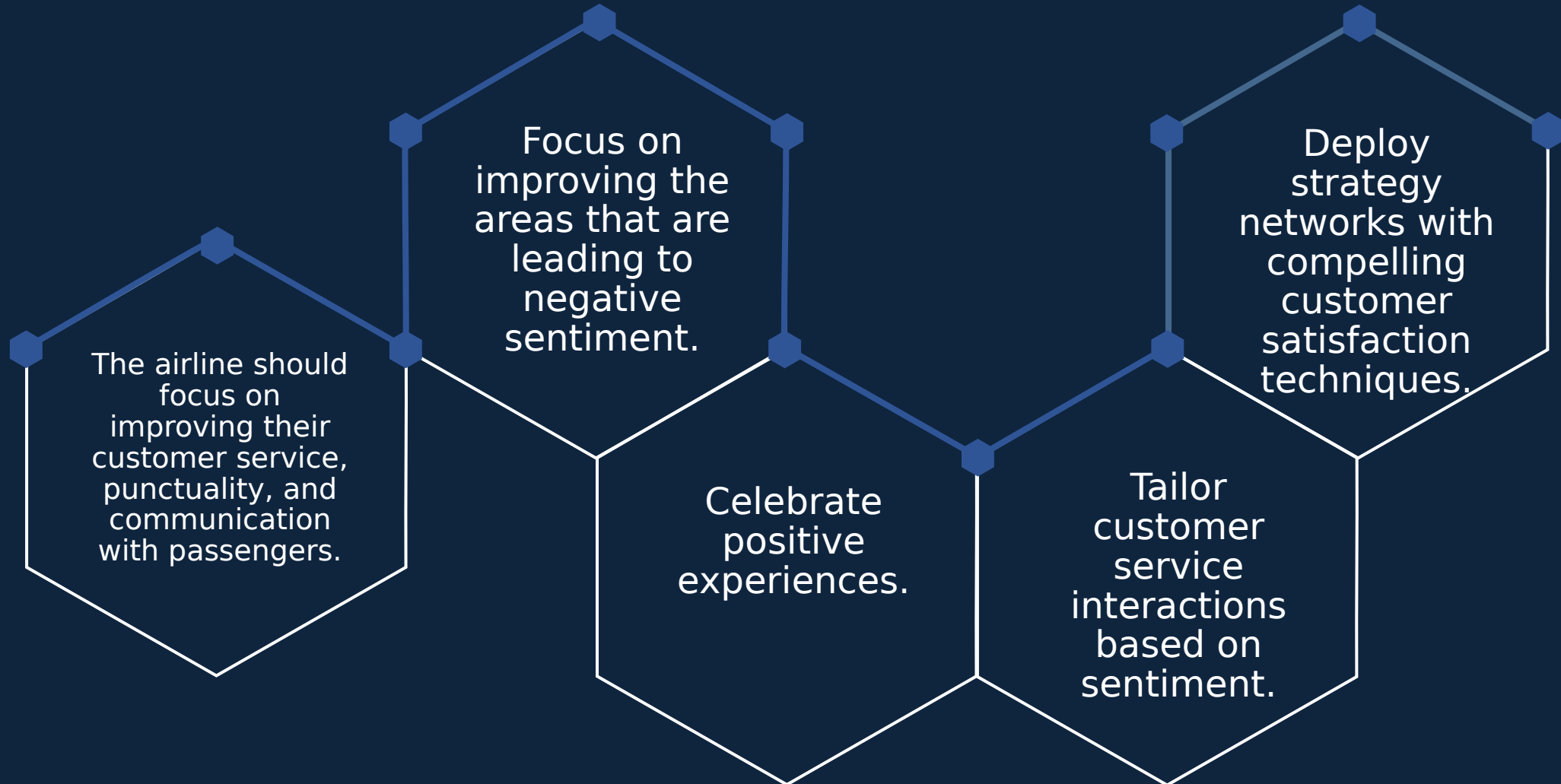
Evaluation Metrics

- Recall
- F1-score

Final Model

Model	Recall	F1_score	Loss
Tuned LSTM	0.76	0.773	0.651

Recommendations





Areas of improvement

Monitoring data real-time

The airline tweets should be monitored in real-time. A pipeline that automates the process of collecting, preprocessing, analyzing, and visualizing social media data should be set up.

More time

Given the time constraints, there are some important analyses that could have been done that was not done. In future, more time can be allocated to undertake such a project.

Conclusion

The project was a success as we were able to classify the tweets correctly and all project objectives were met.





Thank you!

All questions are
welcome!

Meet our team

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