Airline Review Sentiment Analysis

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Overview

- Business Problem
- Data & Methods
- Modeling
- Evaluation
- Conclusions

Business Problem

Stakeholder:
Popular Airline Company

Challenge:

How can we improve customer satisfaction and brand loyalty?

Business Problem

Stakeholder:
   Popular Airline Company

Context:
- **Predict sentiment** based on reviews
- **Focus** for Marketing Campaign

Summary

Source
AirlineEquallity.com

Method
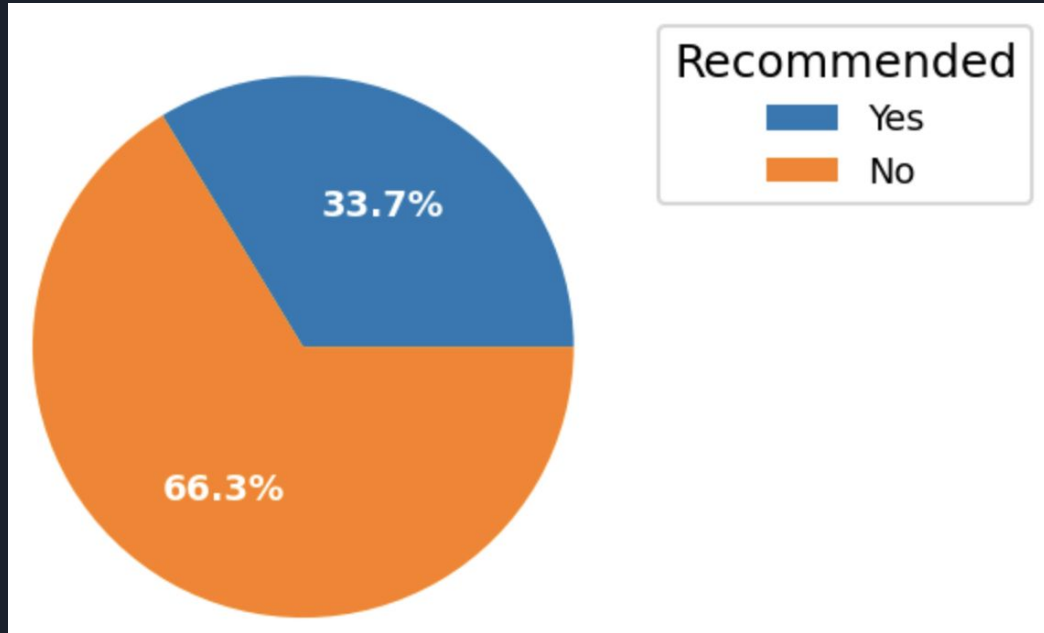Multi-Layer Perceptions

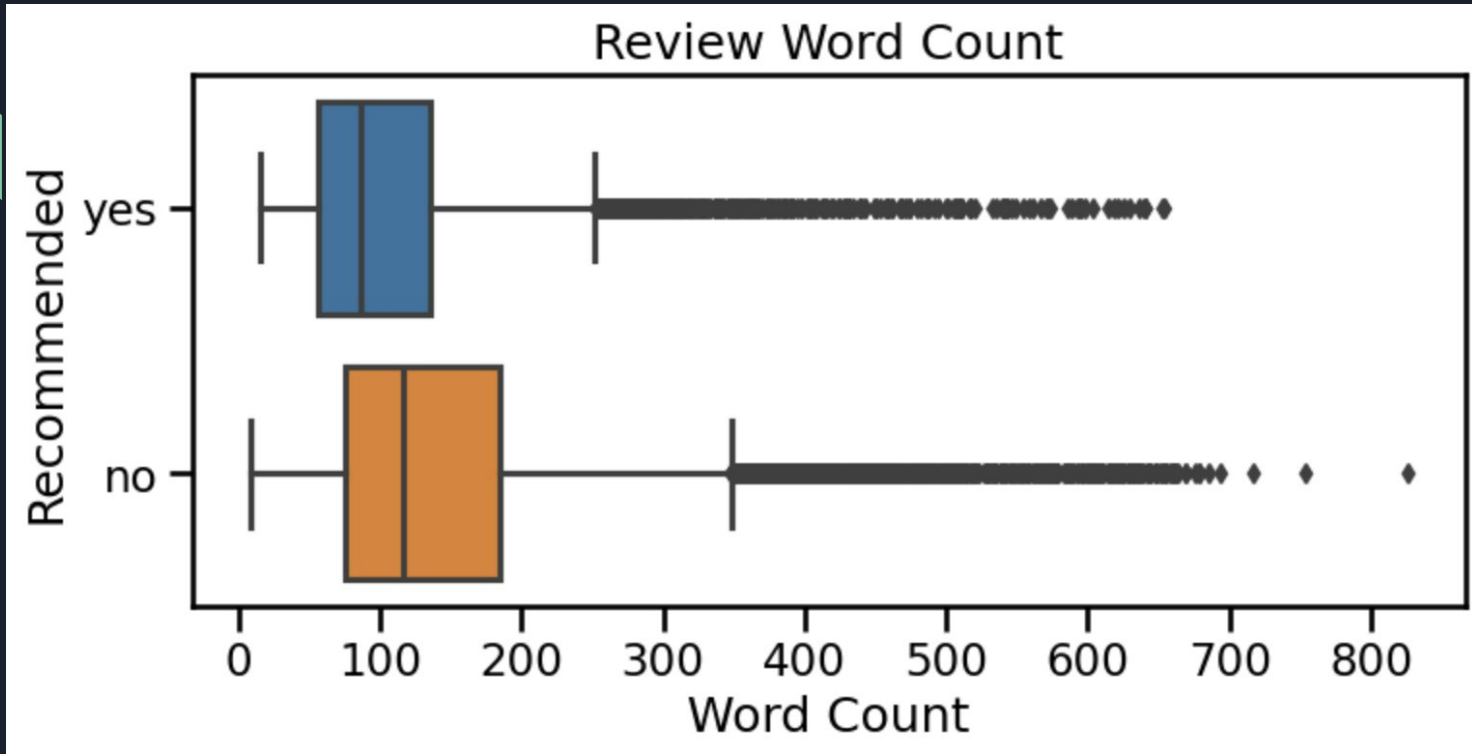## Findings
Prediction:

- **92%** of Reviews

Factors

- **Punctuality**
- **Customer Service**

Data

Airline Reviews
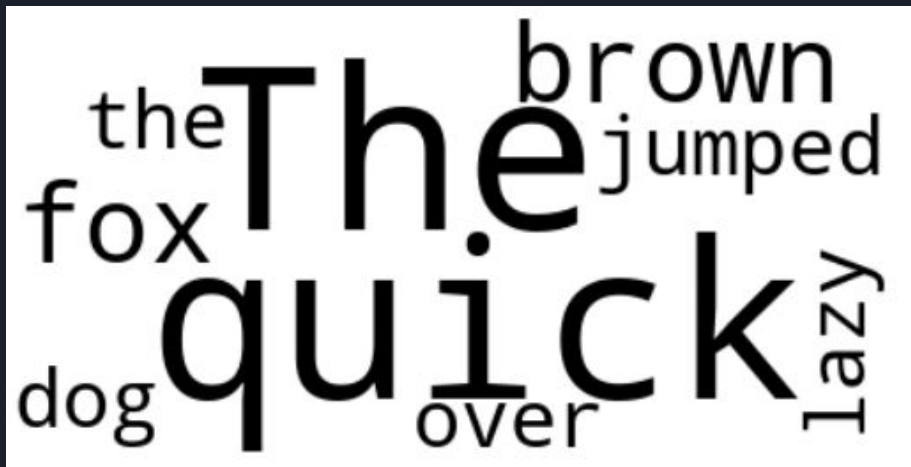
- 23,171 Reviews

- From 2002 - 2023

Review Word Count

"No" Reviews are longer on average

Model Iteration

Bag of Words

Sequential

Feature Importance

Negative Influences

- Punctuality
- Quality

No Reviews

hour · get · tell · airline · flight · bad · never · delay · day · pay

0   2000
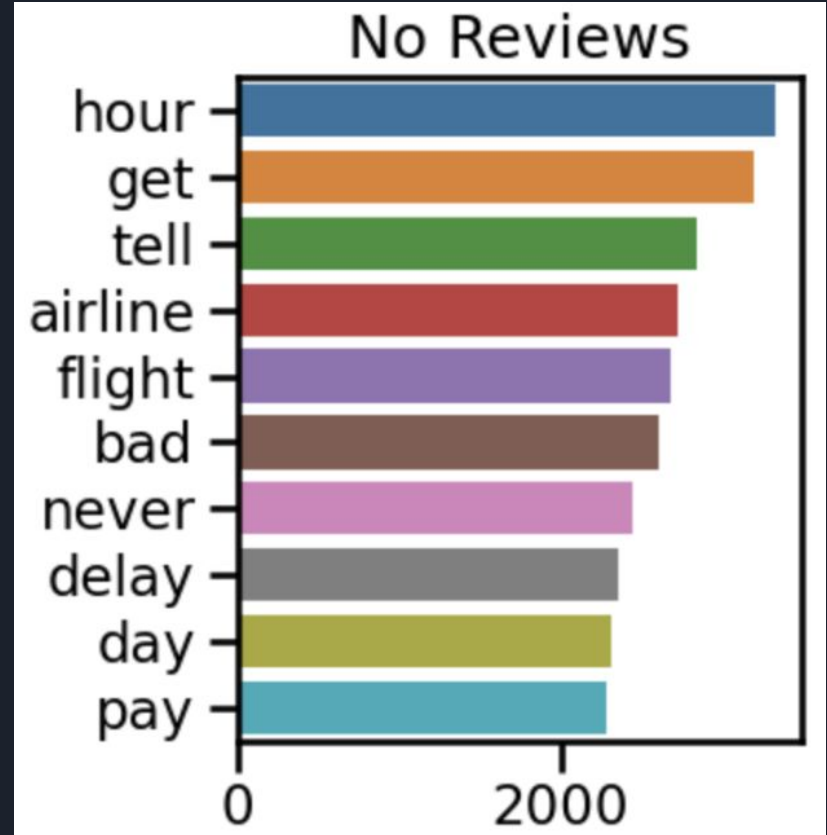
Feature Importance

Positive Influences

- Customer Service
- Comfort

Yes Reviews

good, crew, friendly, cabin, comfortable, great, excellent, nice, food, seat

0   2000   4000
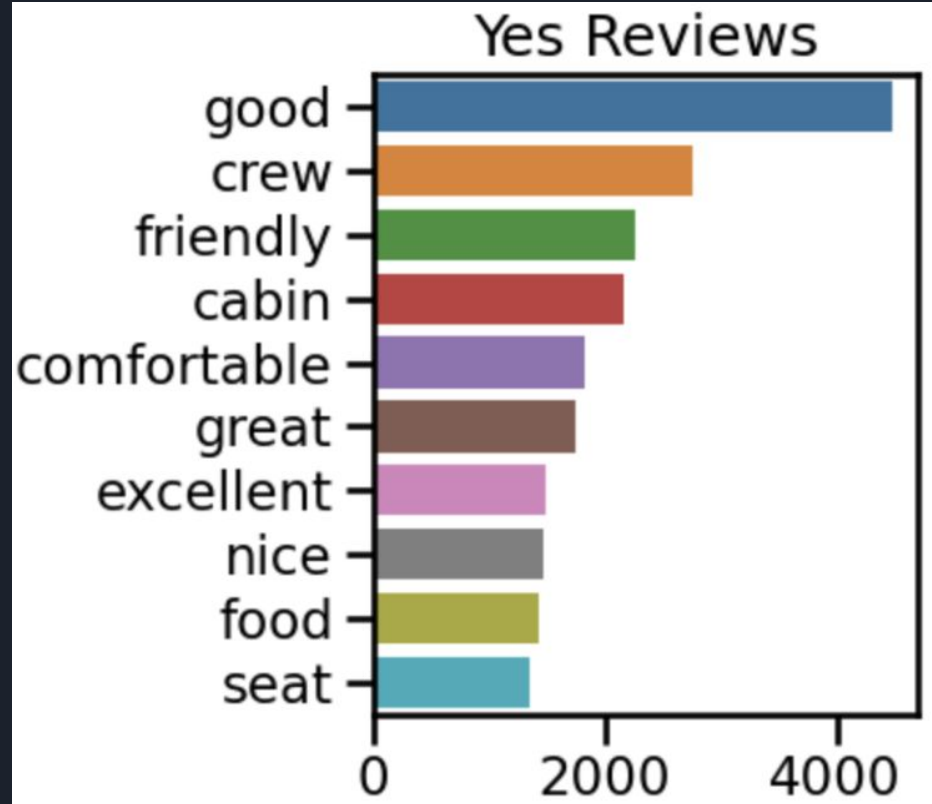
Conclusion

Best model

Correctly Classifies:

- **92%** Reviews

Recommendation:

- **Use model to classify future reviews**

- **Focus on Punctuality and customer service.**

Conclusion

Limitations

- Only used Title, Review, Recommended features.

- Representative Sample?

Next Steps

- **Include More Features**
    - Improve predictive model
    - Gain insights into customer satisfaction
- **Update** Airline survey

Thank you!

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