



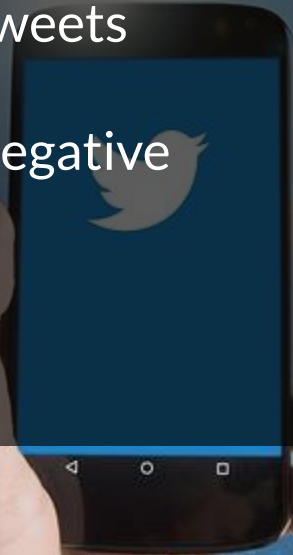
# Tweet Sentiment Analysis

US Airlines tweets



# Data used

- Kaggle, Crowdfunder's Data library
- Dataset of 14.6k tweets
- Positive, neutral, negative
- 6 Airlines



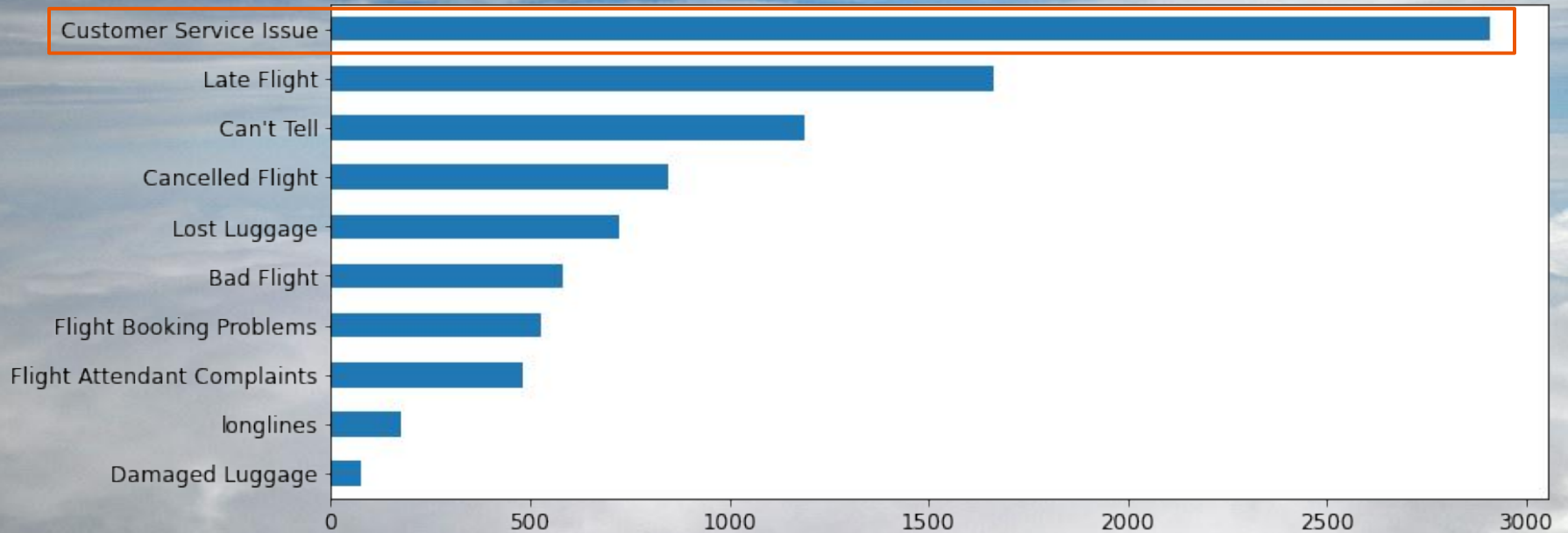
A photograph of a Ryanair airplane's wing and tail fin against a clear blue sky. The tail fin has the word "RYANAIR" written on it in black capital letters. The wing is white with black markings. The background is a deep blue sky with some light clouds near the horizon.

# The Problem

- Number of complaints grow
- 2,413 complaints May, 2022
- Lack of focused feedback



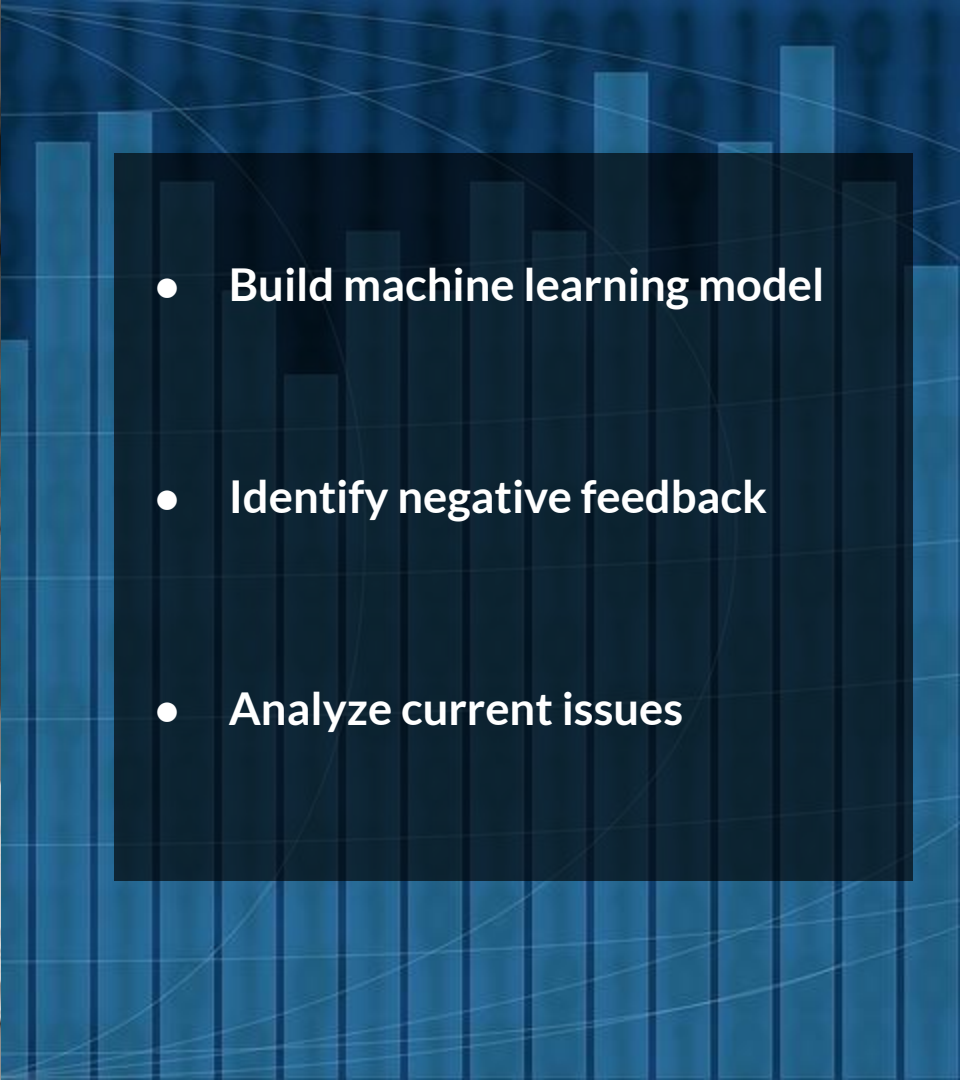
# Feedback Summary





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# Solution

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- Build machine learning model
  - Identify negative feedback
  - Analyze current issues



# STEPS

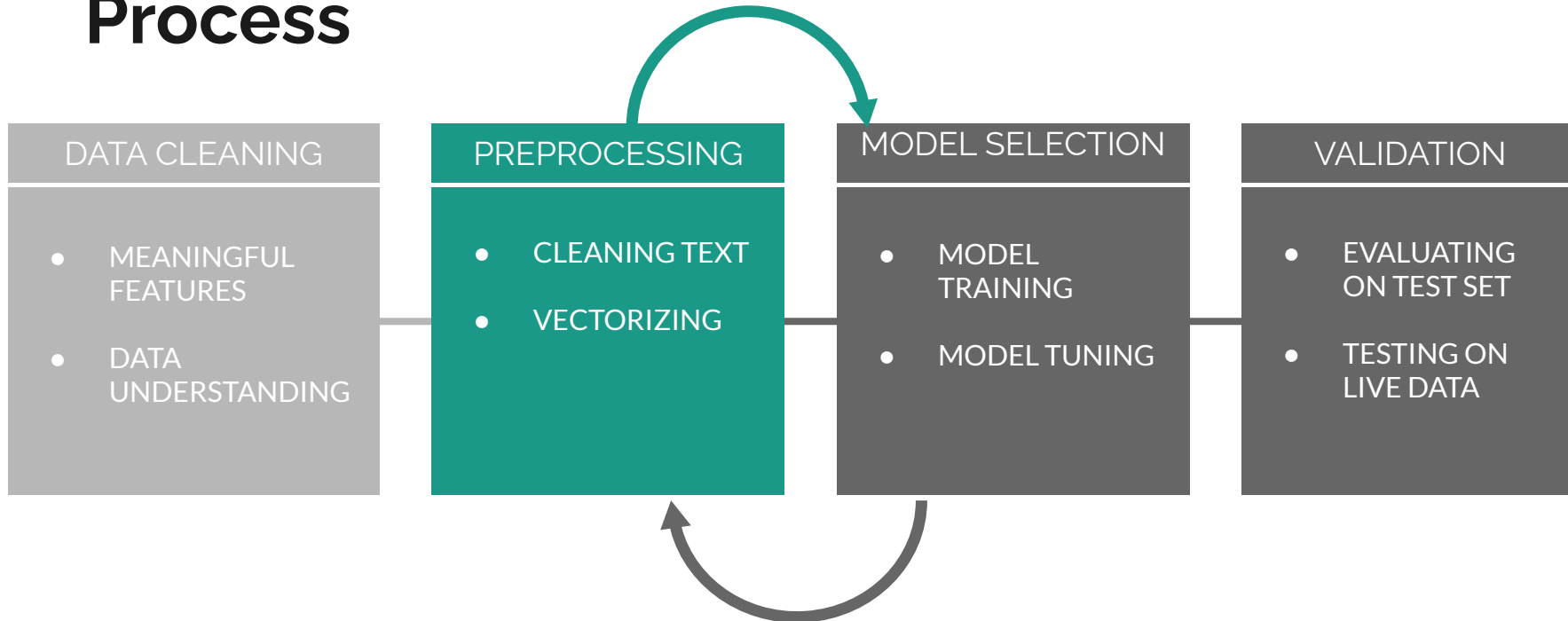
Text data preprocessing

Model training and optimization

Application on live tweets



# Process



# Results

- 96% of negative tweets identified
- only 8% of all tweets misclassified as negative
- Overall accuracy 88%



ERIN SPARKMAN @austin  
@RealSparkman

positive

That must have been the best flight I've ever had on @delta Derek Bibby is probably the greatest pilot. He got us so close to Mount Rainier. I felt like I could pet a goat! #DeltaAirlines

12:20 AM · Aug 22, 2022 · Twitter Web App



Nou Kriye Ansanm 🙄  
@\_Geniebytheway

negative

The airlines called me broke in 4 different languages and we need another pandemic. #deltaairlines #unitedairlines #americanairlines

5:48 PM · Aug 23, 2022 · Twitter for iPhone

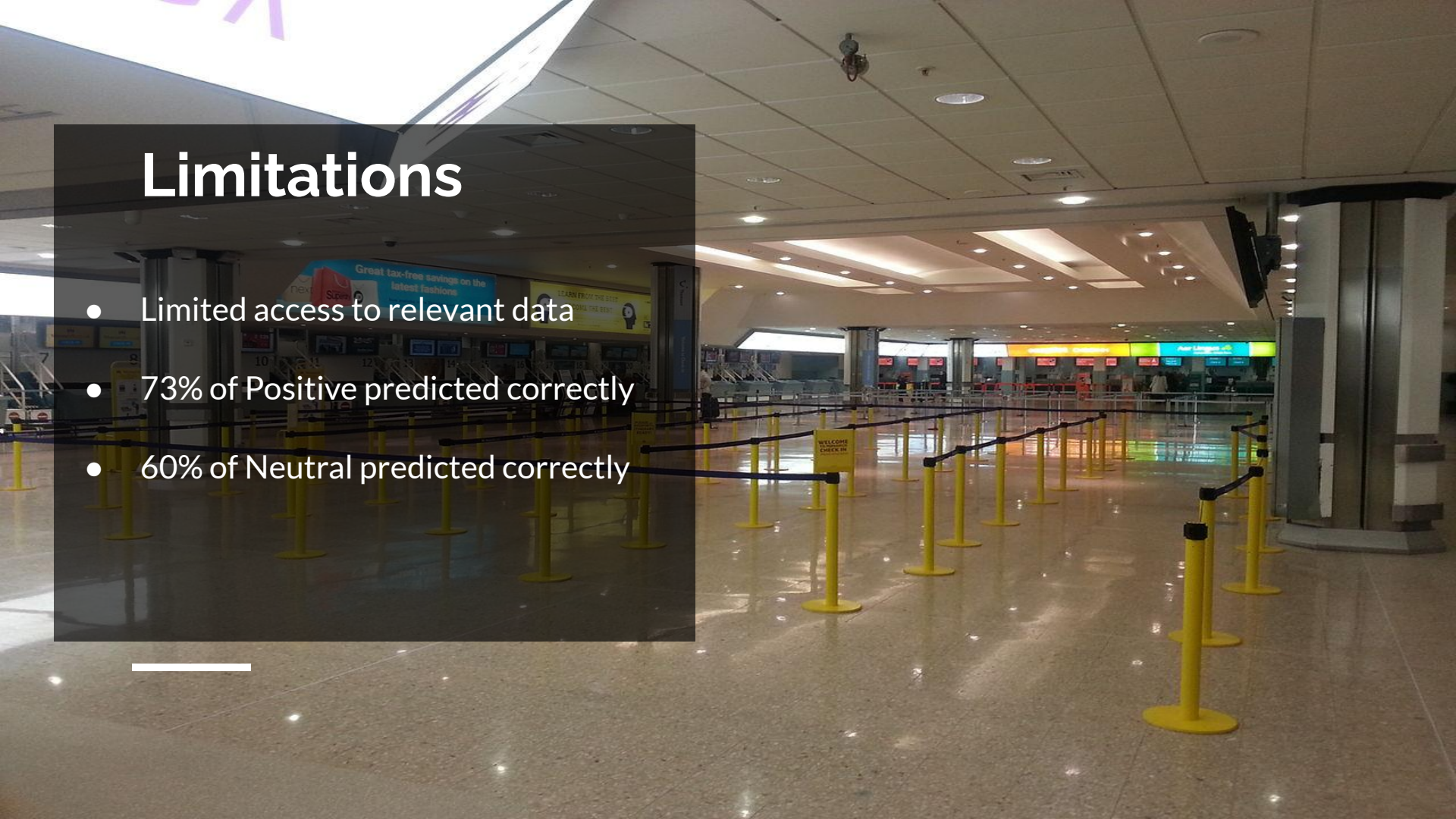
13 2000

Check-



# Limitations

- Limited access to relevant data
- 73% of Positive predicted correctly
- 60% of Neutral predicted correctly





# Conclusion

- Classify sentiment
- Aggregate negative tweets
- Use for further analysis and action



The background image shows an airport terminal with a large digital departure board. A person with a suitcase is standing in the foreground, looking at the board. The board is titled 'Départs' and 'Départures' and shows flight information in multiple columns. The text is in Arabic and French. The board is divided into several sections, each with a header in Arabic and French. The columns contain flight numbers, destinations, and times. The board is illuminated by bright lights, and the terminal has a high ceiling with a complex structural design.

Destination	Flight	Time	Gate
Amman	981-001	06:00	016
Baghdad	981-002	06:15	017
Beirut	981-003	06:30	018
Cairo	981-004	06:45	019
Doha	981-005	07:00	020
Frankfurt	981-006	07:15	021
Geneva	981-007	07:30	022
Hong Kong	981-008	07:45	023
Jakarta	981-009	08:00	024
Jeddah	981-010	08:15	025
Kuala Lumpur	981-011	08:30	026
London	981-012	08:45	027
Manama	981-013	09:00	028
Moscow	981-014	09:15	029
Mumbai	981-015	09:30	030
Nairobi	981-016	09:45	031
Paris	981-017	10:00	032
Riyadh	981-018	10:15	033
Singapore	981-019	10:30	034
Taipei	981-020	10:45	035
Tokyo	981-021	11:00	036
Yamoubo	981-022	11:15	037