

# HOTEL SENTIMENT ANALYSIS

– BY KARINA BASTO EYZAGUIRRE –



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01

# Business Understanding

“[...] overwhelming volume of unstructured customer feedback, making it difficult to manually extract actionable insights to improve services and reputation.”







02

# Data Understanding

# Booking.com Hotel Reviews

pulled from

kaggle™



03

# Data Preparation

**Class  
Distribution  
Analysis**

**1**

**Feature  
Selection**

**3**

**Text Feature  
Extraction  
(TF-IDF)**

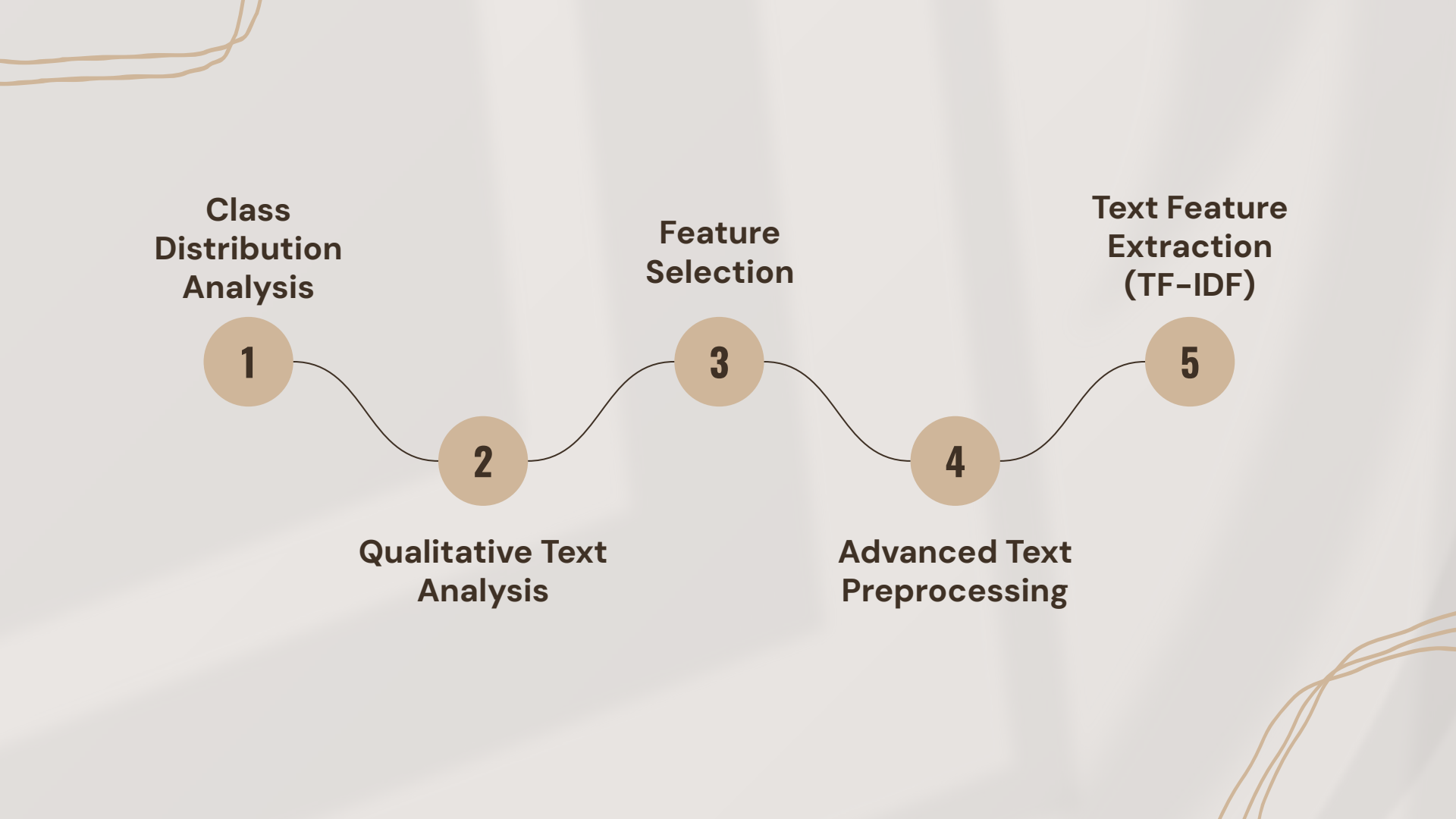
**5**

**Qualitative Text  
Analysis**

**2**

**Advanced Text  
Preprocessing**

**4**







04

# Modelling

# Five Models

• 01 •

Two Baseline Models

• 02 •

Three Advanced Machine Learning  
Models

• 03 •

One Deep Learning



05

Results

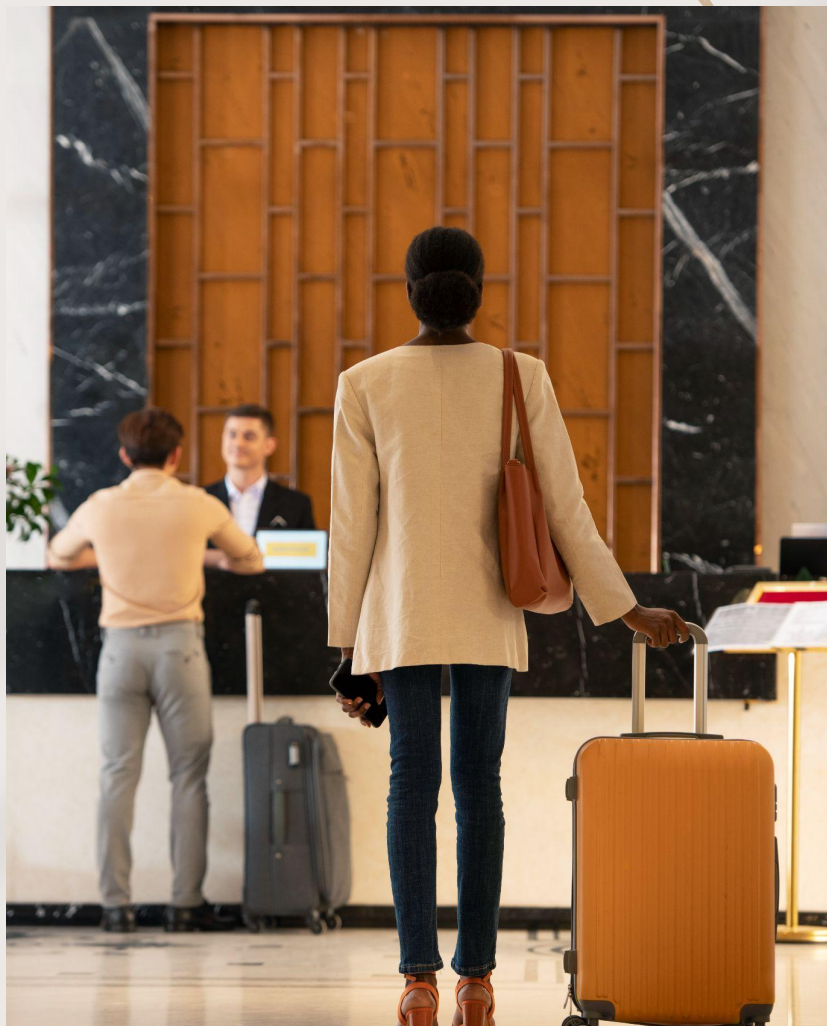
## Selected Model: Hypertuned Logistic Regression

Accuracy - 91%

ROC-AUC - 97%

F1 Score (weighted) - 91%

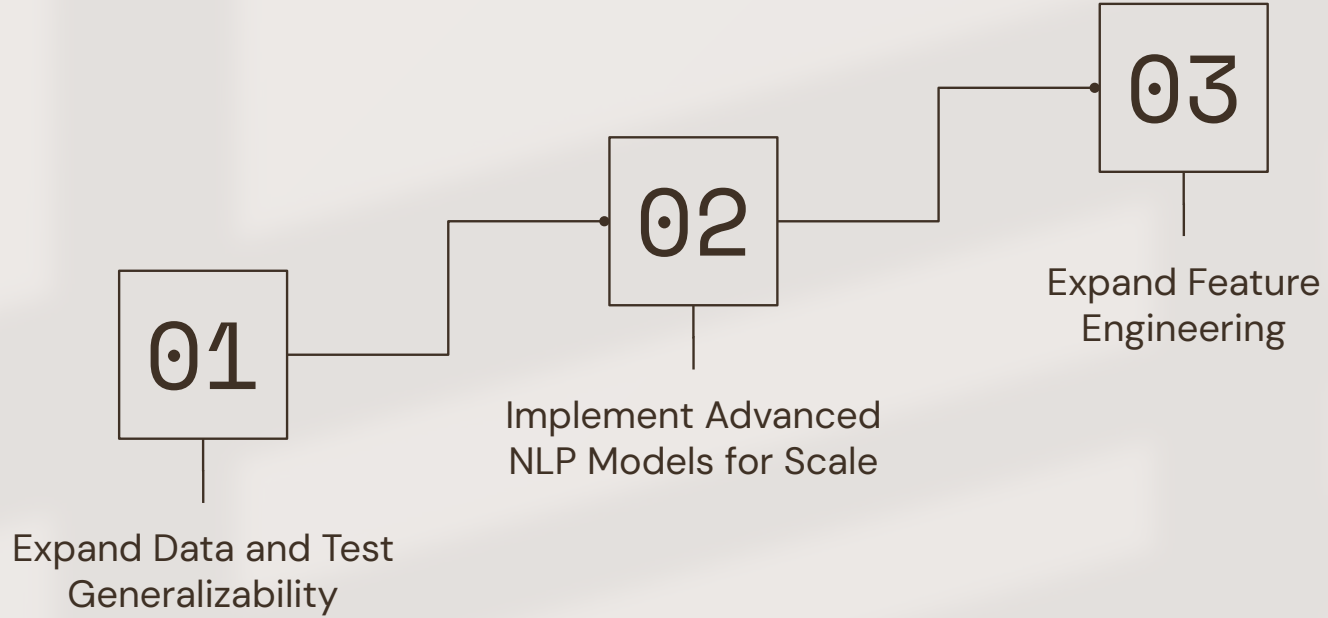
|             |          |                  |                  |
|-------------|----------|------------------|------------------|
| True labels | Negative | <b>TN</b><br>543 | <b>FP</b><br>57  |
|             | Positive | <b>FN</b><br>68  | <b>TP</b><br>649 |
|             |          | Negative         | Positive         |
|             |          | Predicted labels |                  |



05

Next  
Steps





# Thank you!

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**Do you have any questions?**

Author: Karina Basto Eyzaguirre

 [karinabastoe@gmail.com](mailto:karinabastoe@gmail.com)

