



Airline Passenger Satisfaction

By : Eman , Bushra

TABLE OF CONTENTS



**INTRODUCTION
WORKFLOW**



**TOOLS
EDA**





**PREPROCESSING
MODELLING**



INTRODUCTION

This dataset contains an airline passenger satisfaction survey. What factors are highly correlated to a satisfied (or dissatisfied) passenger? Can you predict passenger satisfaction?



Dataset

25

Features

139K

Columns



Workflow

- 📍 EDA
- 📍 Split Data
- 📍 Cleaning data
- 📍 Modeling
- 📍 Test



Tools



01 Python, Jupyter
notebook

02 NumPy, Pandas,
SKLearn

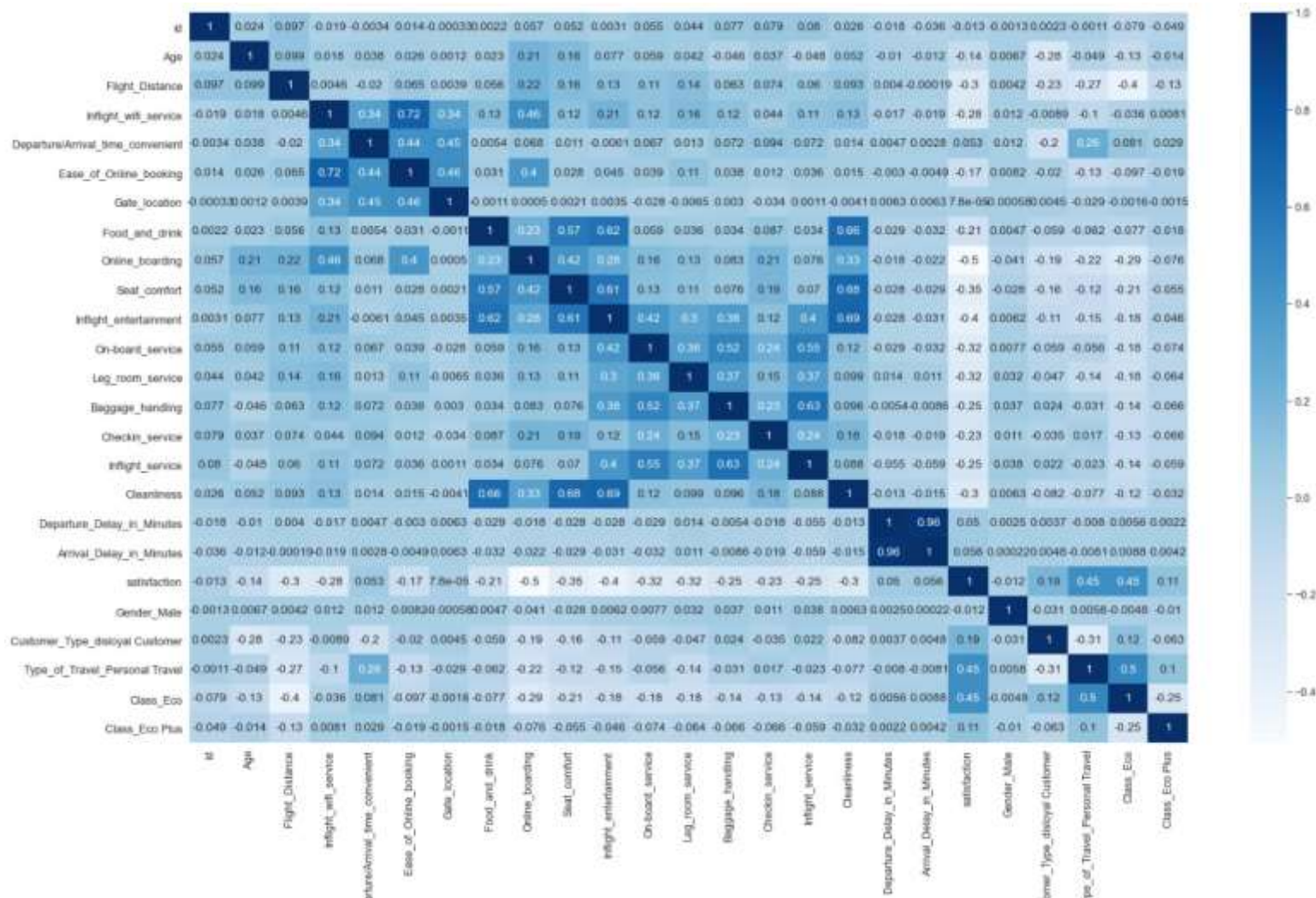
03 Matplotlib,
Seaborn,
Tableau

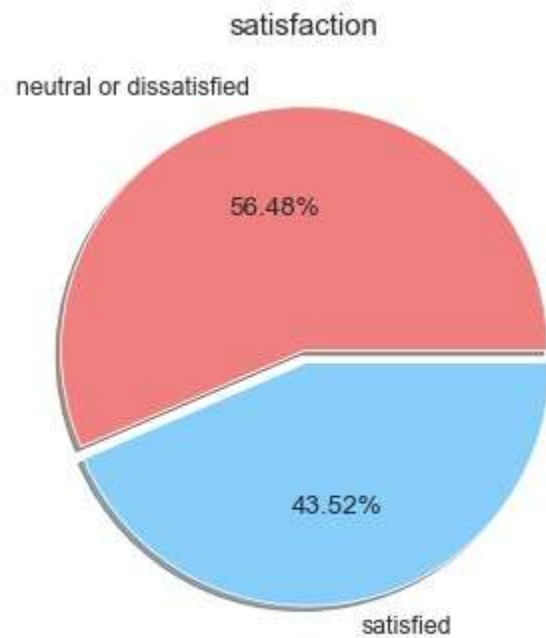
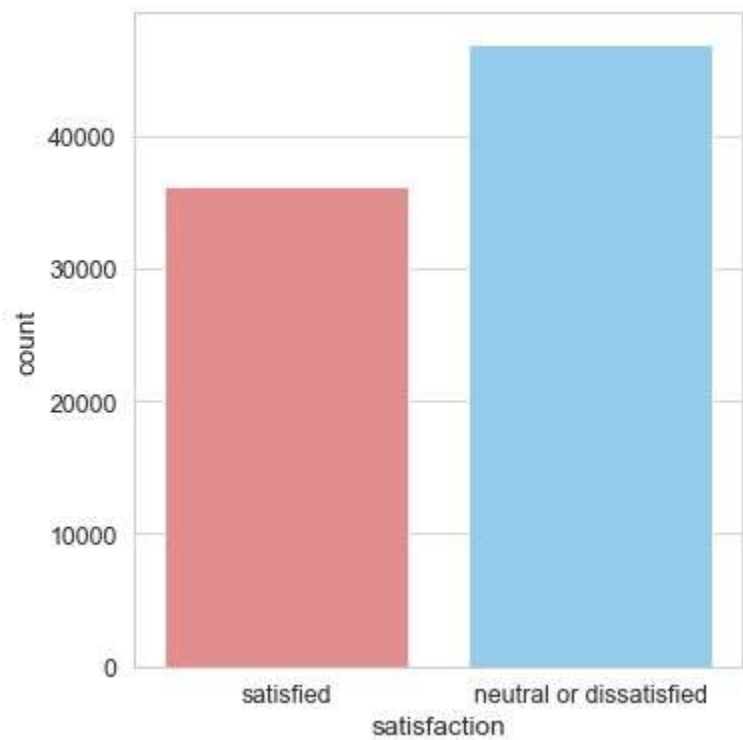


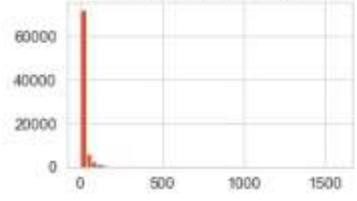
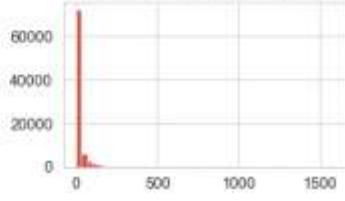
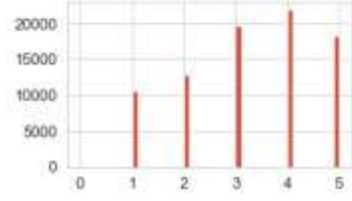
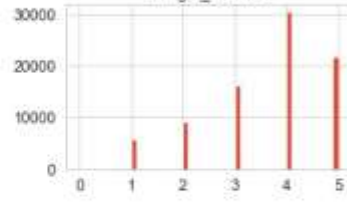
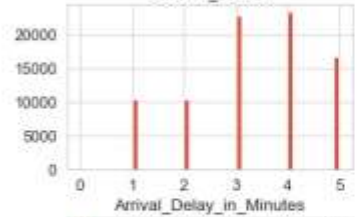
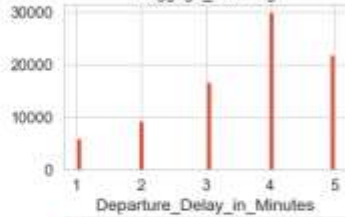
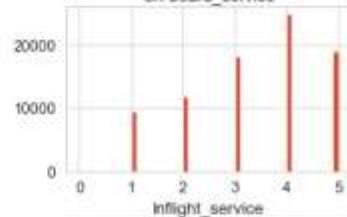
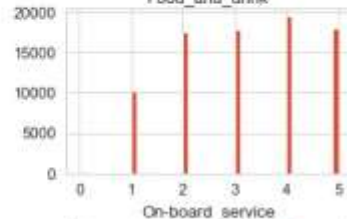
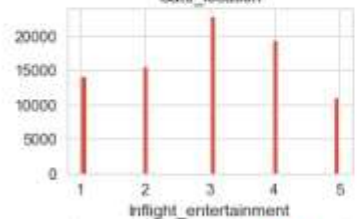
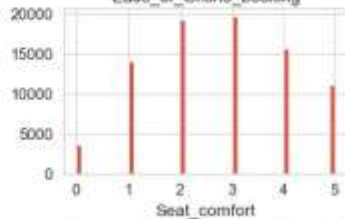
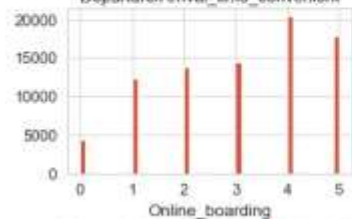
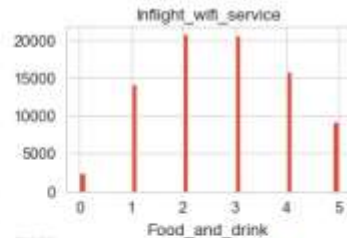
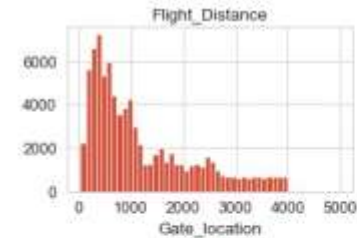
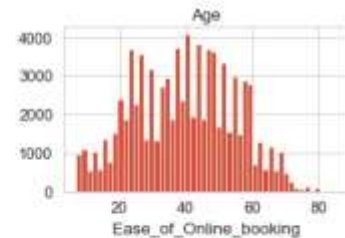
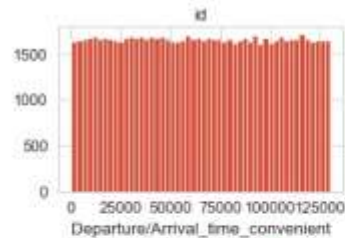


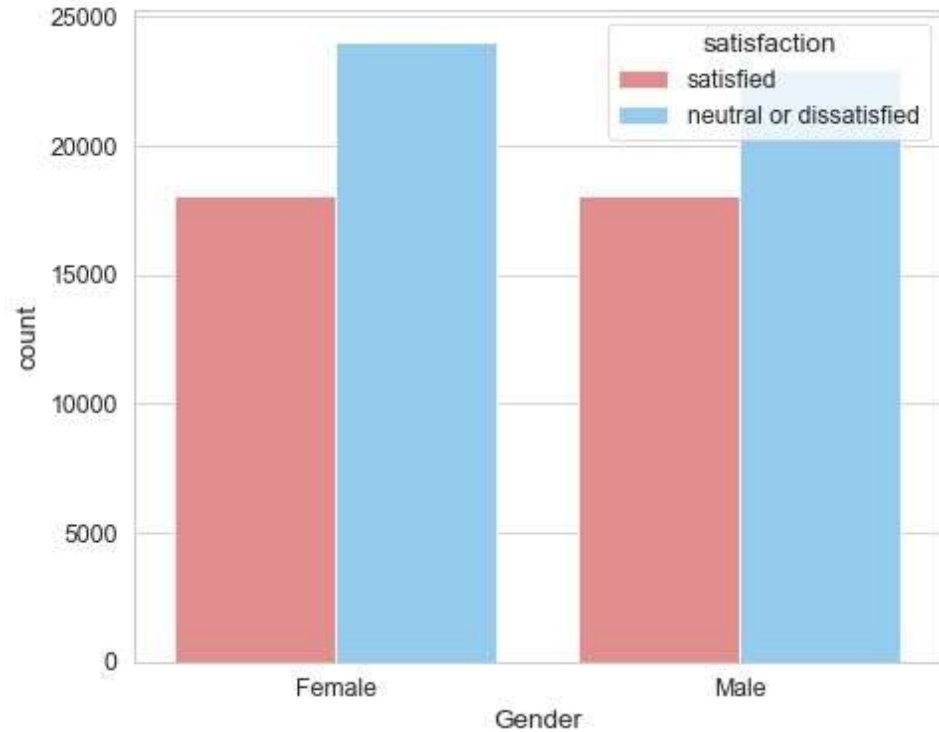
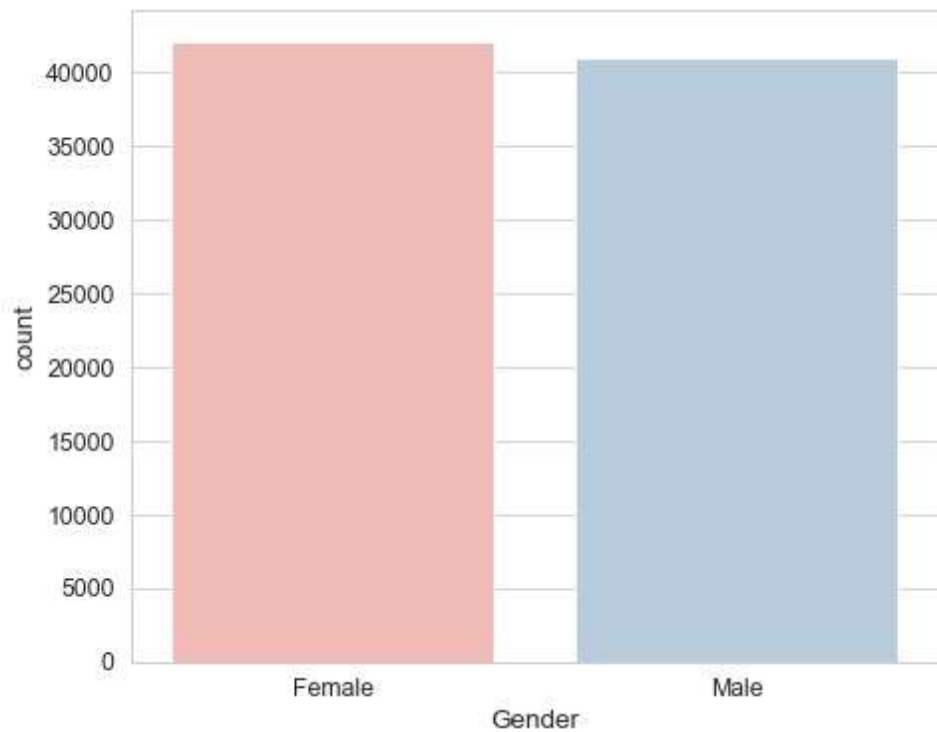
EDA





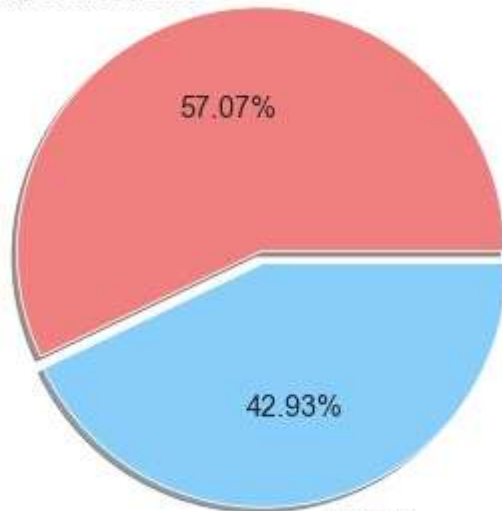






Satisfaction (Female)

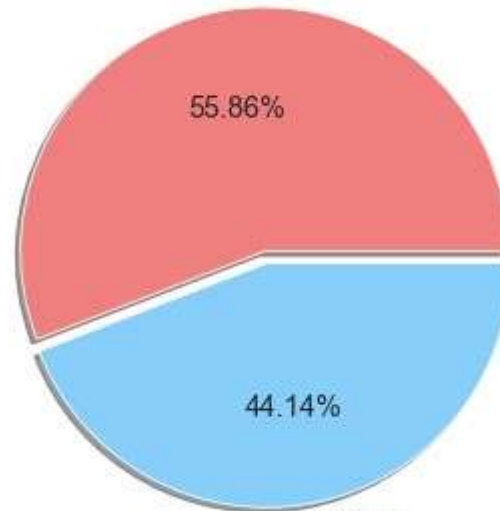
neutral or dissatisfied



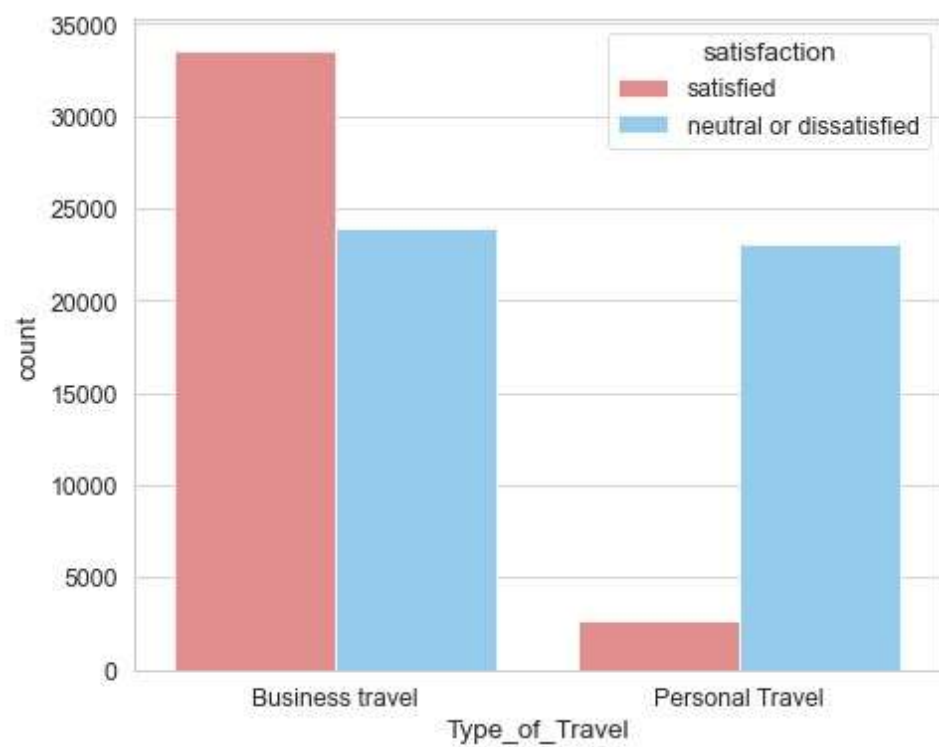
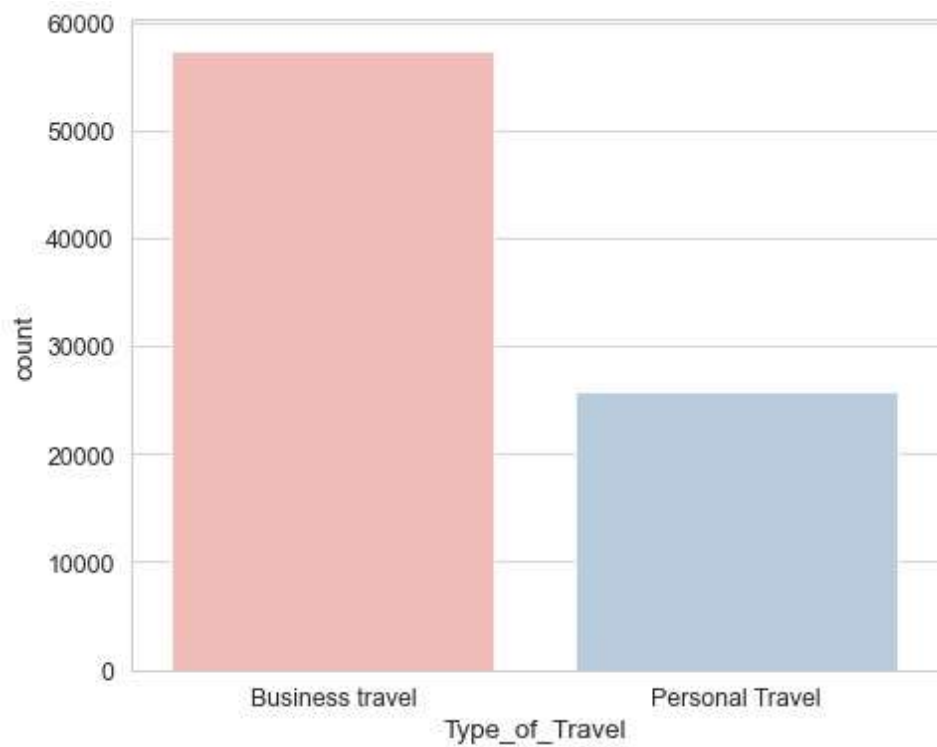
satisfied

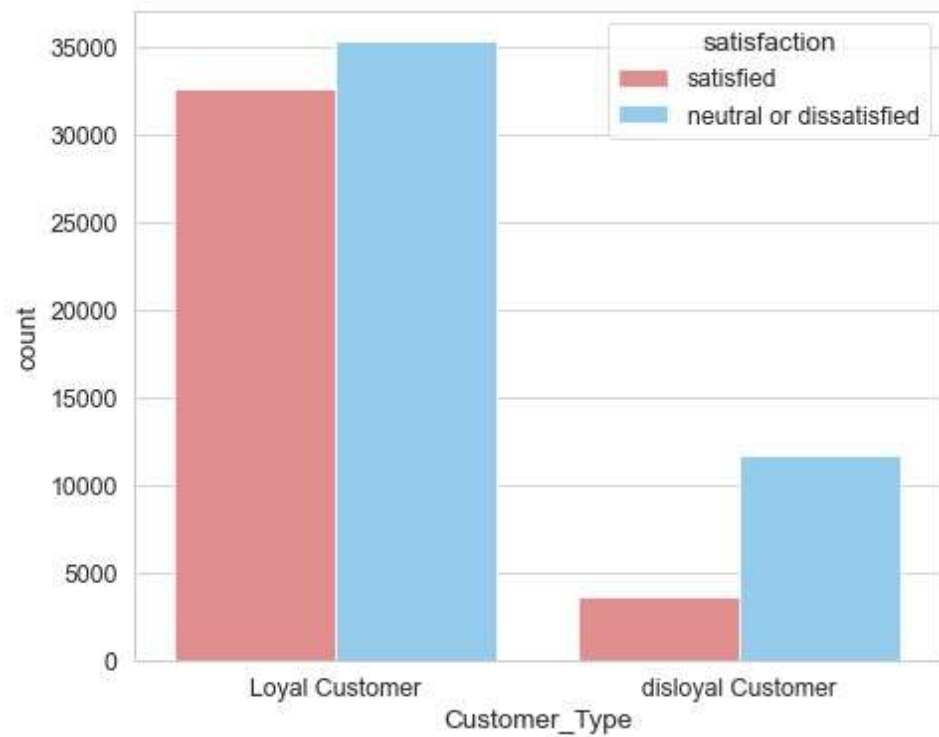
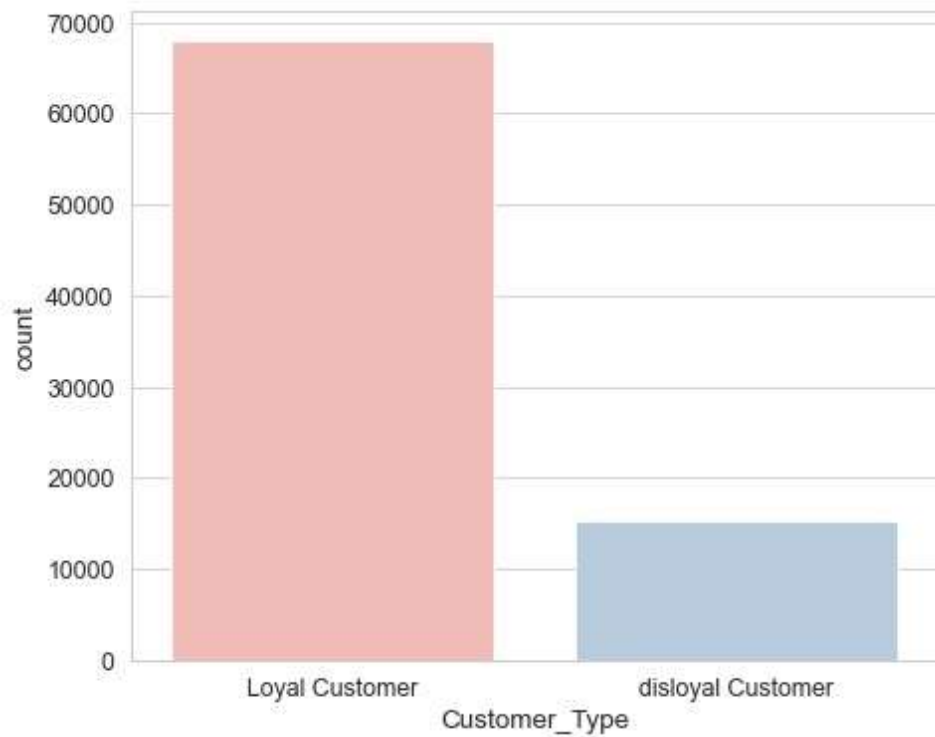
Satisfaction (Male)

neutral or dissatisfied

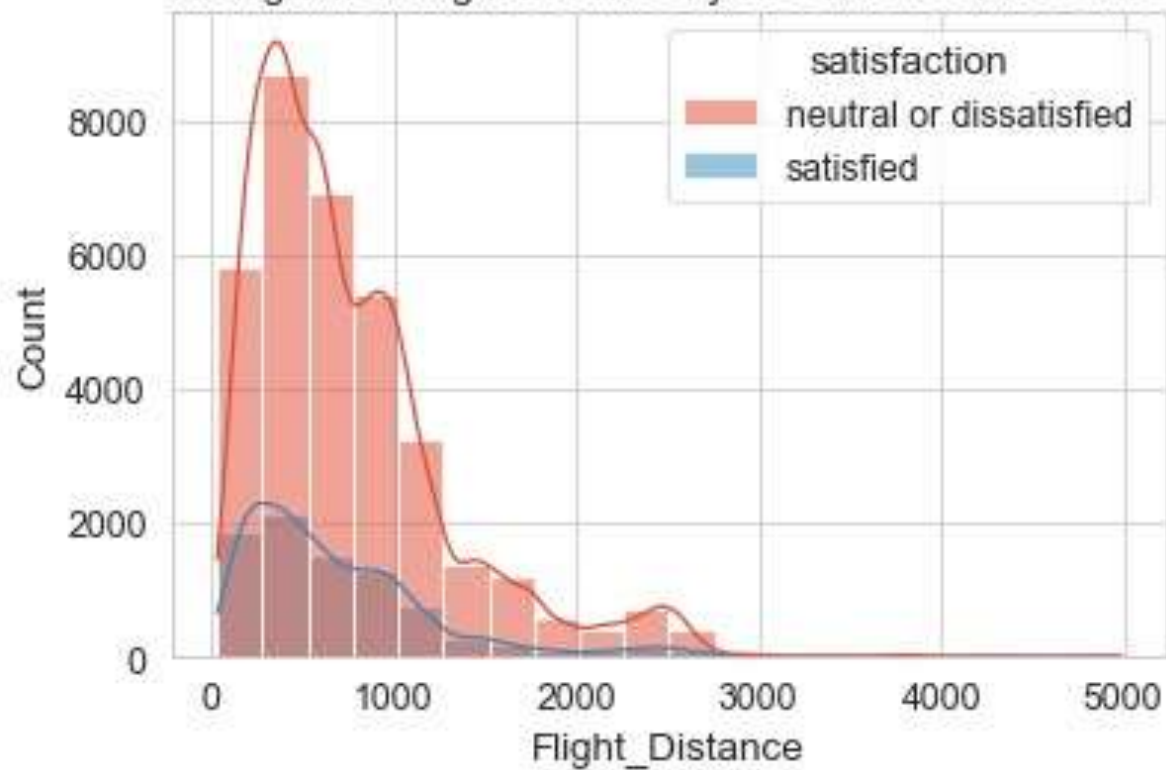


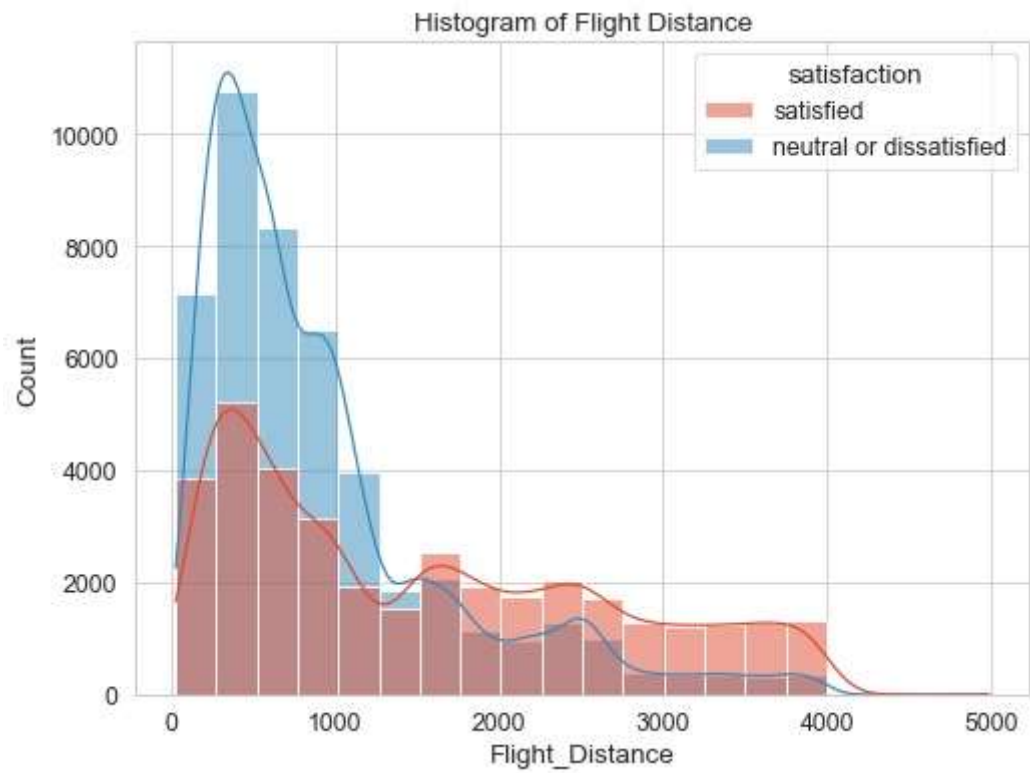
satisfied

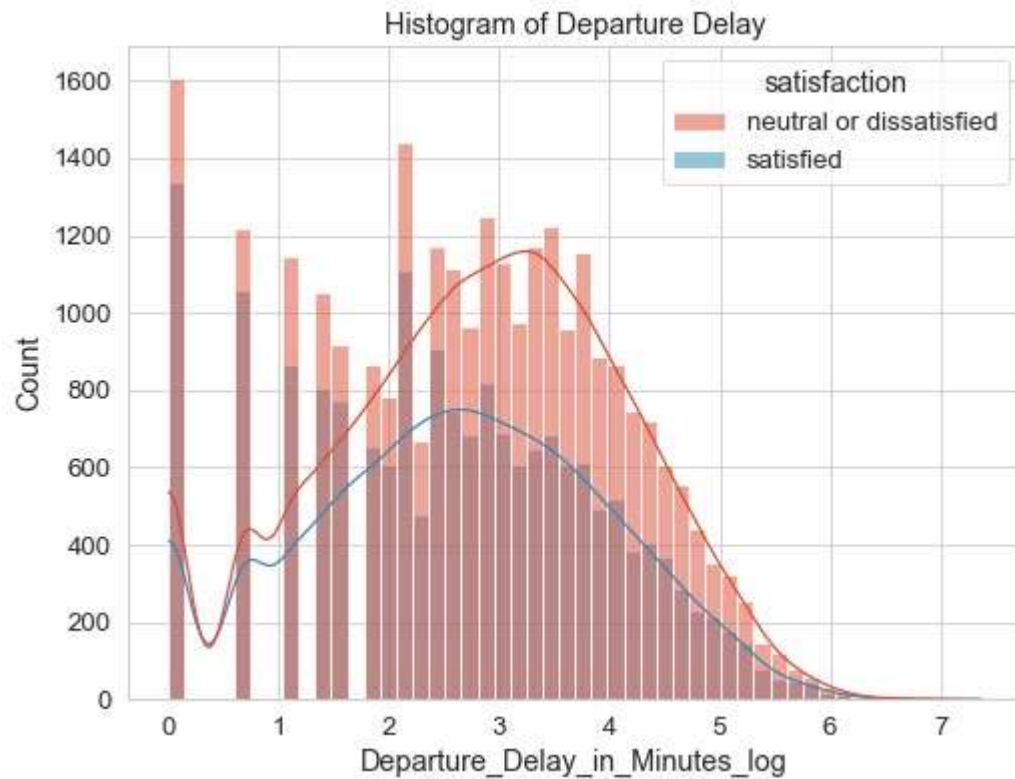




Histogram of Flight Distance by Eco and Eco Plus Class









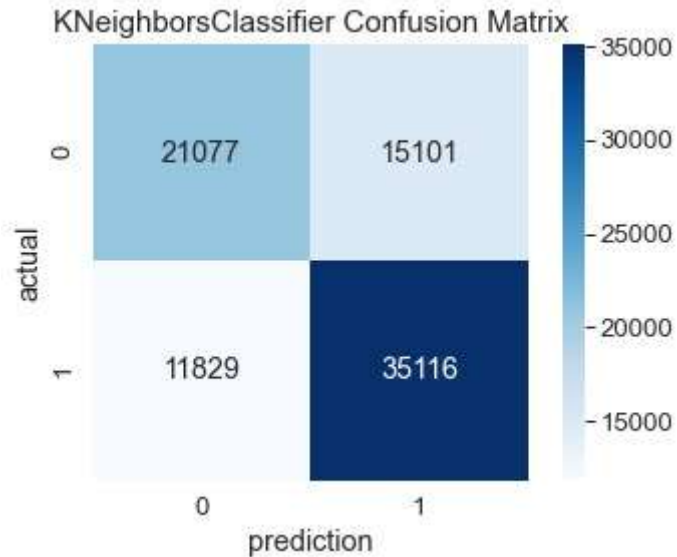
Use case

You work with an airline to help predict whether a traveler is satisfied or dissatisfied with services and arrival and departure times.

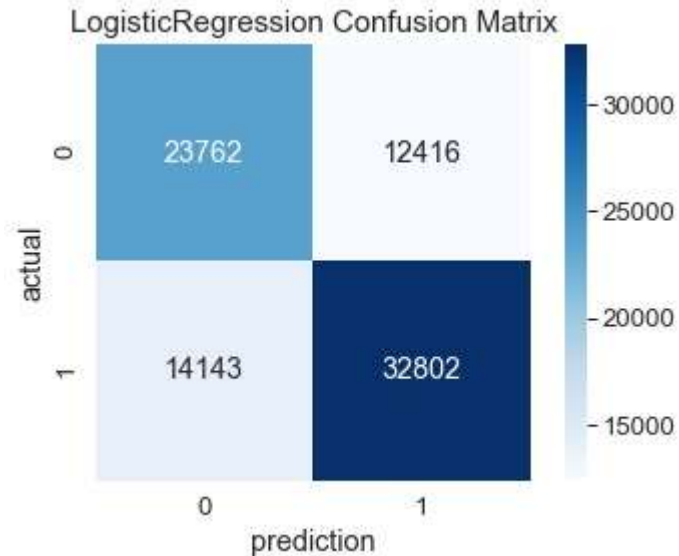


Modeling

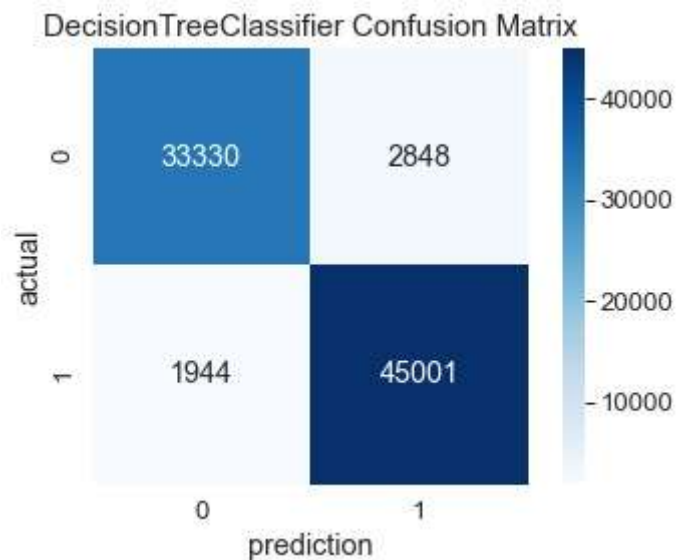
Name of Models	Accuracy	Precision	F1
KNN	0.676	0.699	0.722



Name of Models	Accuracy	Precision	F1
Logistic Regression	0.680	0.730	0.712

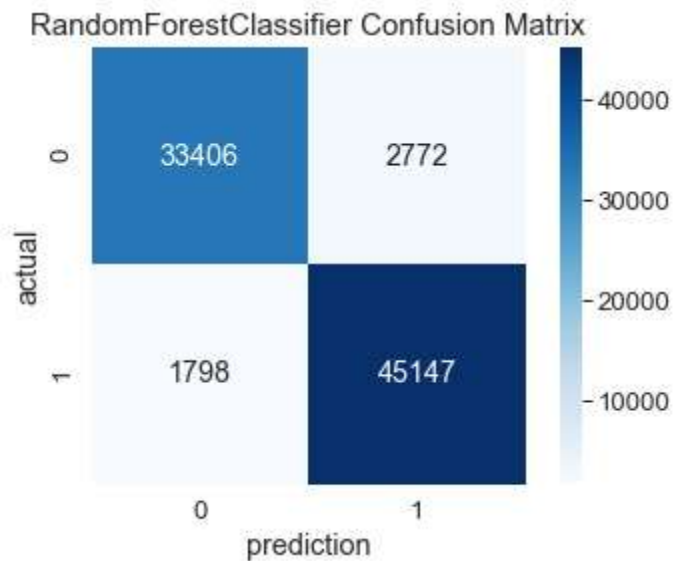


Name of Models	Accuracy	Precision	F1
Decision Tree	0.942	0.940	0.949

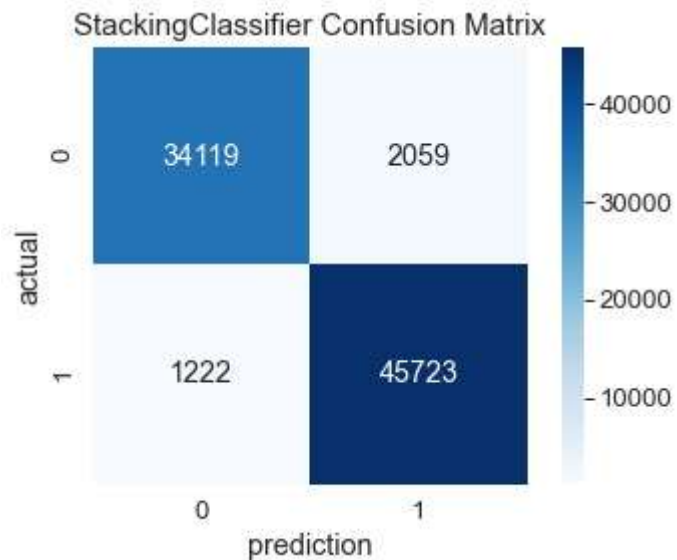




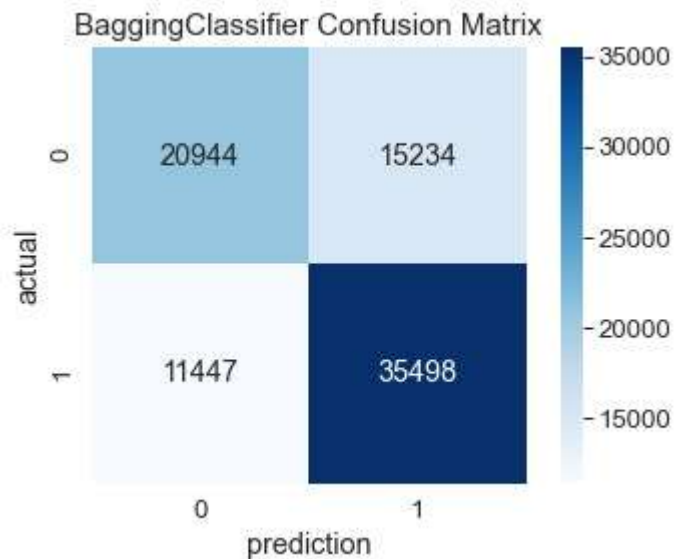
Name of Models	Accuracy	Precision	F1
Random Forest	0.945	0.942	0.951



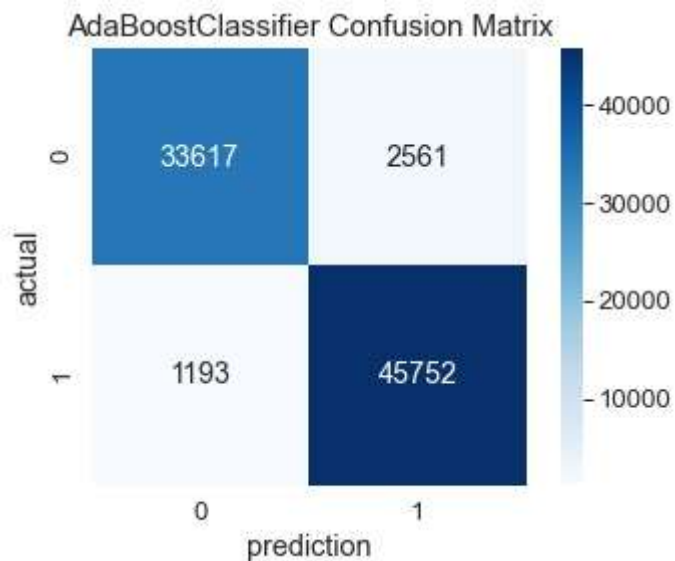
Name of Models	Accuracy	Precision	F1
Stacking	0.945	0.956	0.965



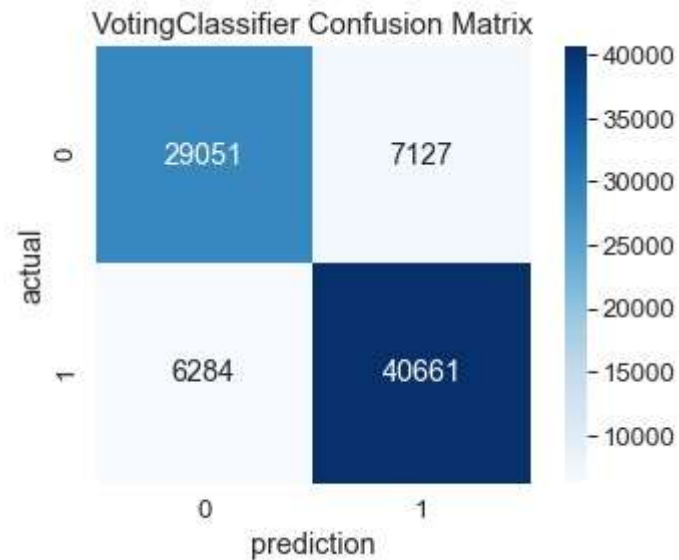
Name of Models	Accuracy	Precision	F1
Bagging	0.769	0.699	0.726



Name of Models	Accuracy	Precision	F1
Adboost	0.954	0.947	0.960



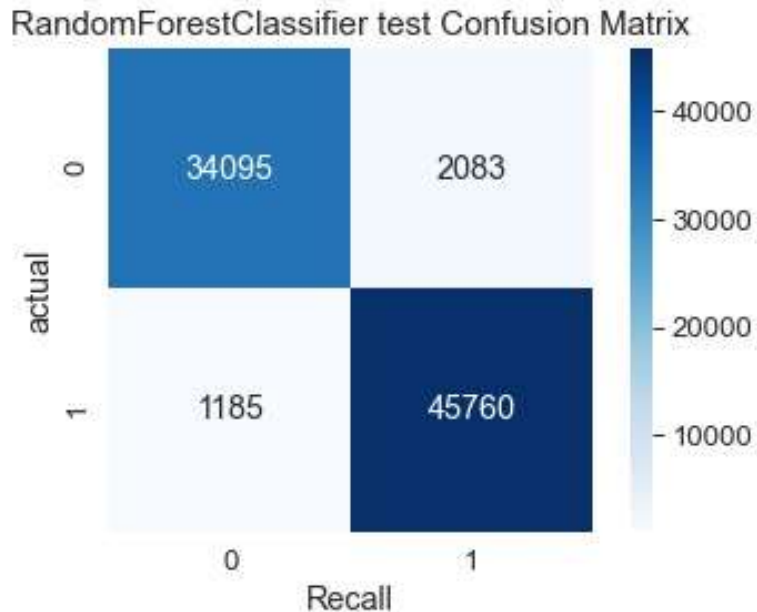
Name of Models	Accuracy	Precision	F1
Voting	0.838	0.852	0.858





Testing

Accuracy: 0.945
Score:0.954
Precision:0.956
Recall:0.972
F1:0.965





THANKS

CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon**, and infographics & images by **Freepik**

