



# Airline Passenger Dataset - Exploratory Data Analysis (Week 3)

Data Science Internship - FutureXcel

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# Dataset Overview

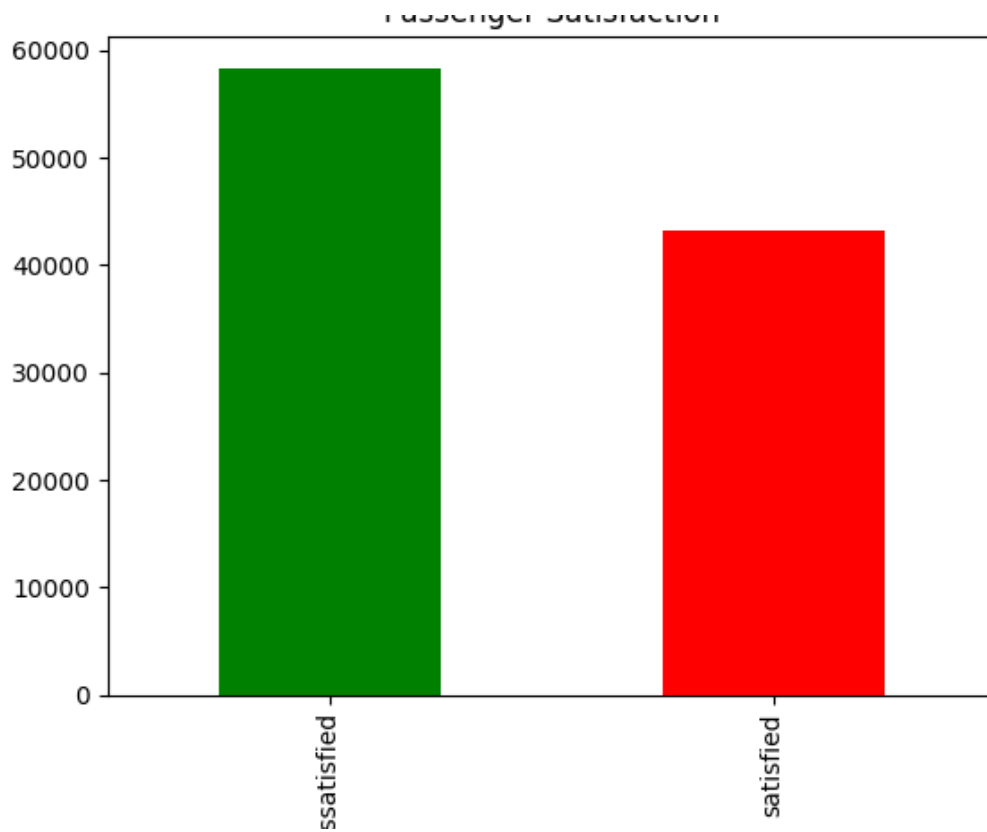
- ▶ Airline passenger satisfaction dataset
- ▶ Includes class, customer type, services, and satisfaction

Unnamed: 0	id	Gender	Customer Type	Age	Type of Travel	Class	Flight Distance	Inflight wifi service	Departure/Arrival time convenient	...	Inflight entertainment	On-board service	Leg room service	Baggage handling	Checkin service
0	0	70172	Male	Loyal Customer	13	Personal Travel	Eco Plus	460	3	4	...	5	4	3	4
1	1	5047	Male	disloyal Customer	25	Business travel	Business	235	3	2	...	1	1	5	3
2	2	110028	Female	Loyal Customer	26	Business travel	Business	1142	2	2	...	5	4	3	4
3	3	24026	Female	Loyal Customer	25	Business travel	Business	562	2	5	...	2	2	5	3
4	4	119299	Male	Loyal Customer	61	Business travel	Business	214	3	3	...	3	3	4	4

5 rows x 25 columns

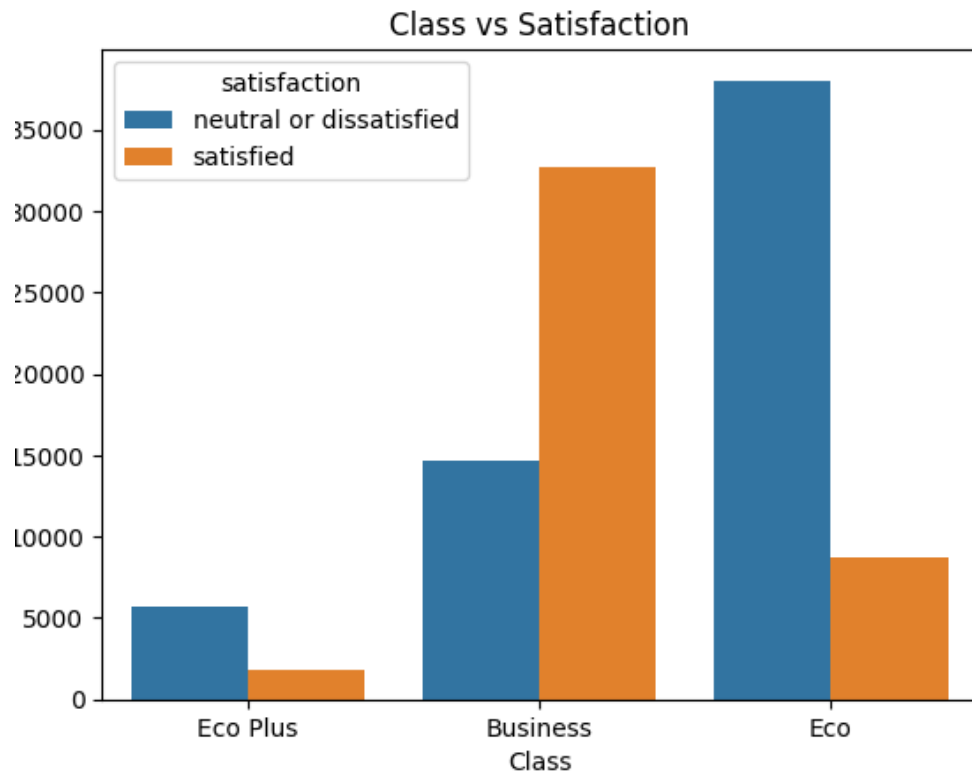
```
0 Unnamed: 0 101613 non-null int64
1 id 101613 non-null int64
2 Gender 101613 non-null object
3 Customer Type 101613 non-null object
4 Age 101613 non-null int64
5 Type of Travel 101613 non-null object
6 Class 101613 non-null object
7 Flight Distance 101613 non-null int64
8 Inflight wifi service 101613 non-null int64
9 Departure/Arrival time convenient 101613 non-null int64
10 Ease of Online booking 101613 non-null int64
11 Gate location 101613 non-null int64
12 Food and drink 101613 non-null int64
13 Online boarding 101613 non-null int64
14 Seat comfort 101613 non-null int64
15 Inflight entertainment 101613 non-null int64
16 On-board service 101613 non-null int64
17 Leg room service 101613 non-null int64
18 Baggage handling 101613 non-null int64
19 Checkin service 101613 non-null int64
20 Inflight service 101613 non-null int64
21 Cleanliness 101613 non-null int64
22 Departure Delay in Minutes 101613 non-null float64
23 Arrival Delay in Minutes 101613 non-null float64
24 satisfaction 101613 non-null object
dtypes: float64(2), int64(18), object(5)
```

# Univariate Analysis



- Satisfaction level distribution
- Passenger category analysis

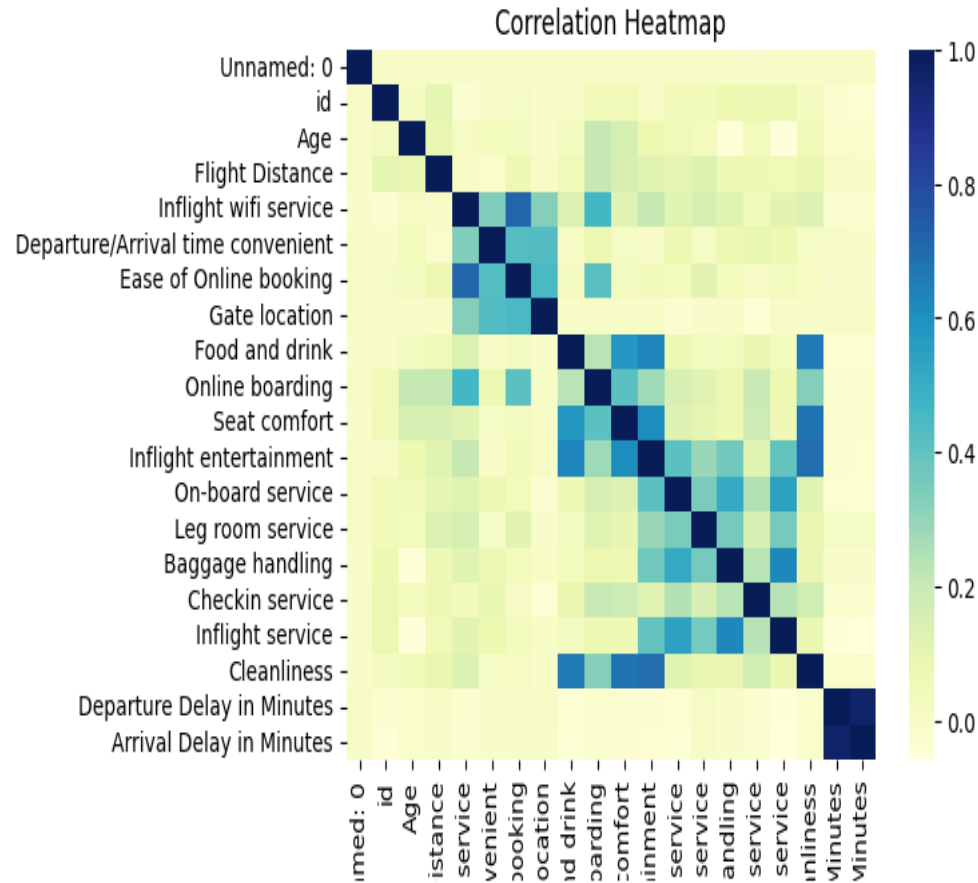
# Bivariate Analysis



- ▶ Class vs satisfaction
- ▶ Customer type vs satisfaction

# Trivariate & Correlation

- Combined effect of class and customer type
- Strong correlation between services and satisfaction



# Key Insights

Business class passengers are more satisfied

Loyal customers show higher satisfaction

Service quality strongly impacts satisfaction

# ► Conclusion

EDA revealed important factors influencing passenger satisfaction.