Airlines Data Analysis

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Universal Goal of every business project

- Generate value for the business

Steps included:

- Understanding the Business problem
- Environment and Library import
- Database connection to extract data
- Data exploration and Schema Analysis
- Identify Key Variables and Analyse Objectives
- Conclusion

Business Problem

Stricter environmental regulations

high flight tax

Factors affecting

REVENUE

& profitability

Rising fuel prices

Increased interest rates

Tight labor market and costs

Objectives

- Increase Occupancy Rate
- Improve Pricing Strategy
- Enhance Customer Experience

Foundational Analysis

Seats Categorisation

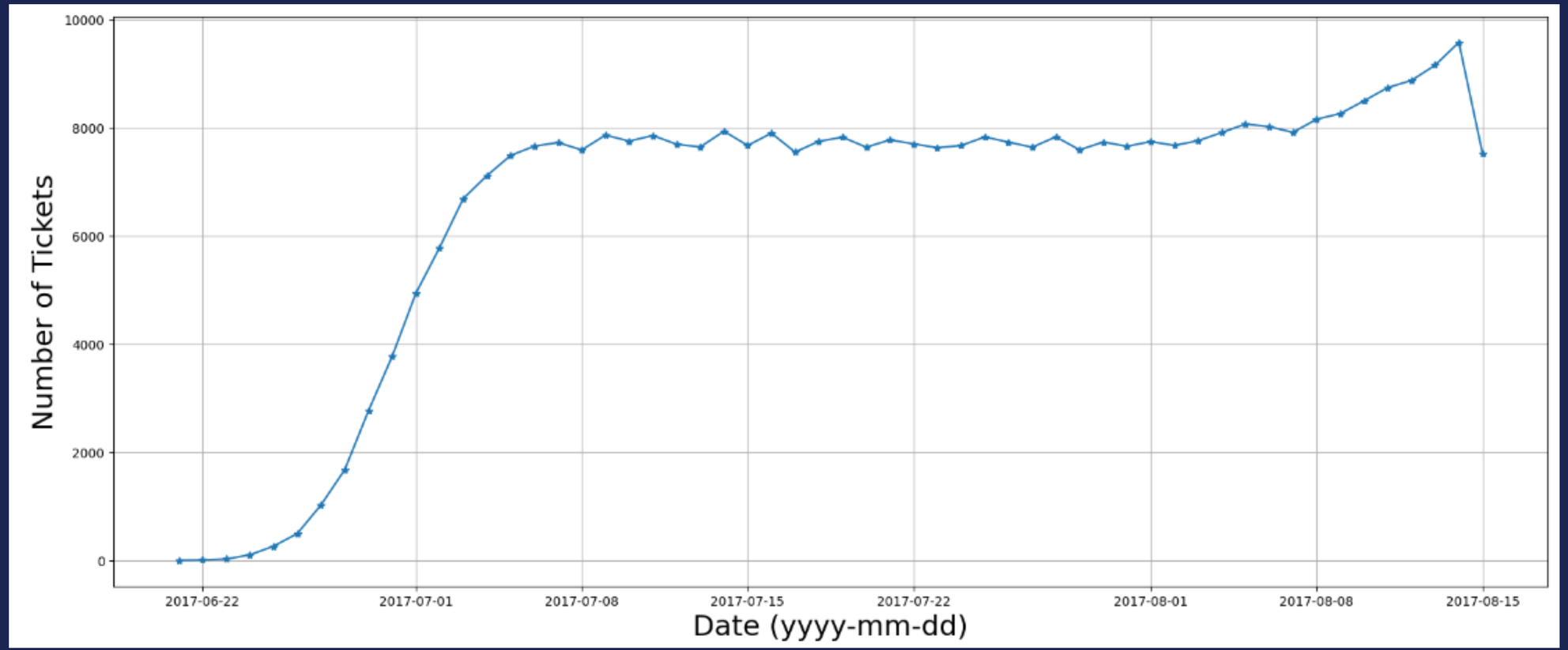
- To understand Capacity planning
- Route optimisation for accomodating passengers

Aircraft code	Number of Seats
319	116
320	140
321	170
733	130
763	222
773	402

Aircrafts with Seats > 100

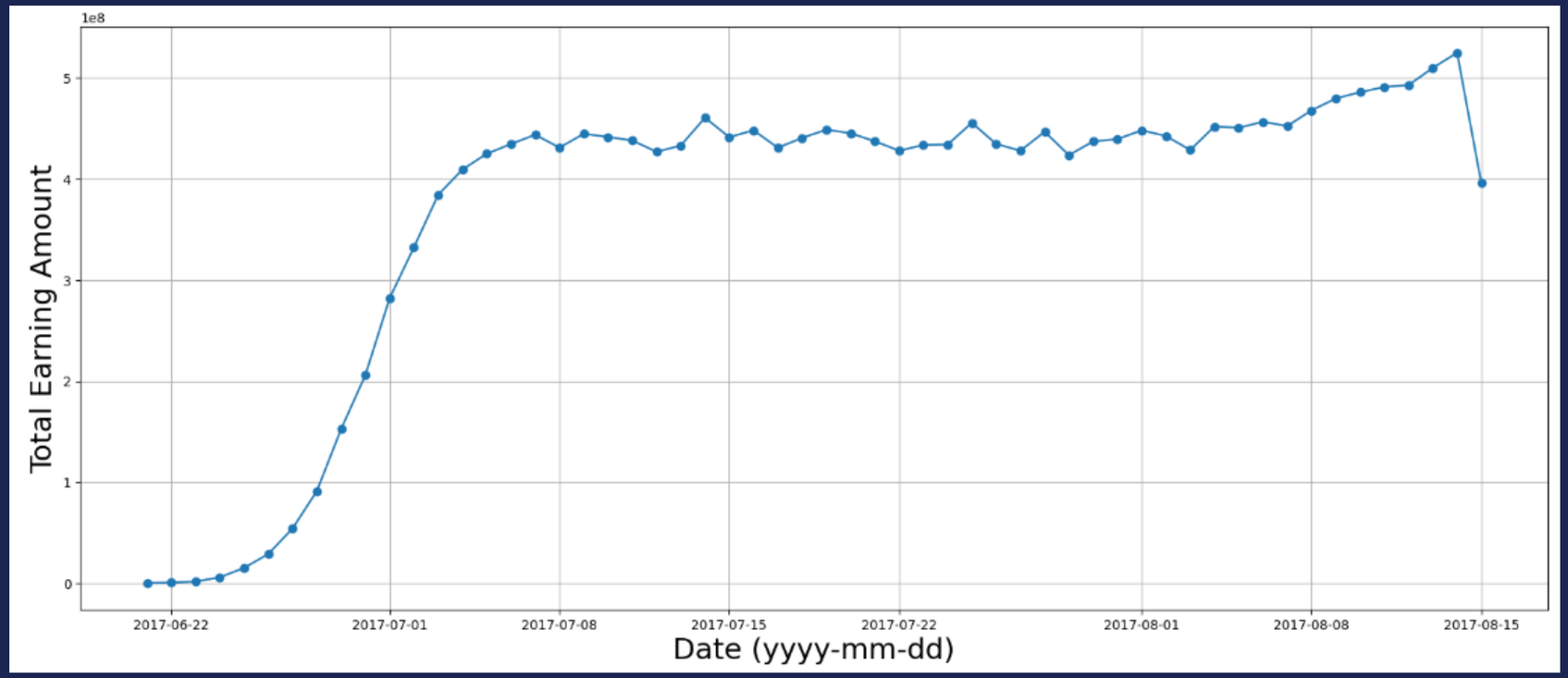
Ticket Overall Bookings

- Trend analysis & Demand forecasting



Fluctuations of Total Earnings over time

- Performance evaluation and benchmarking

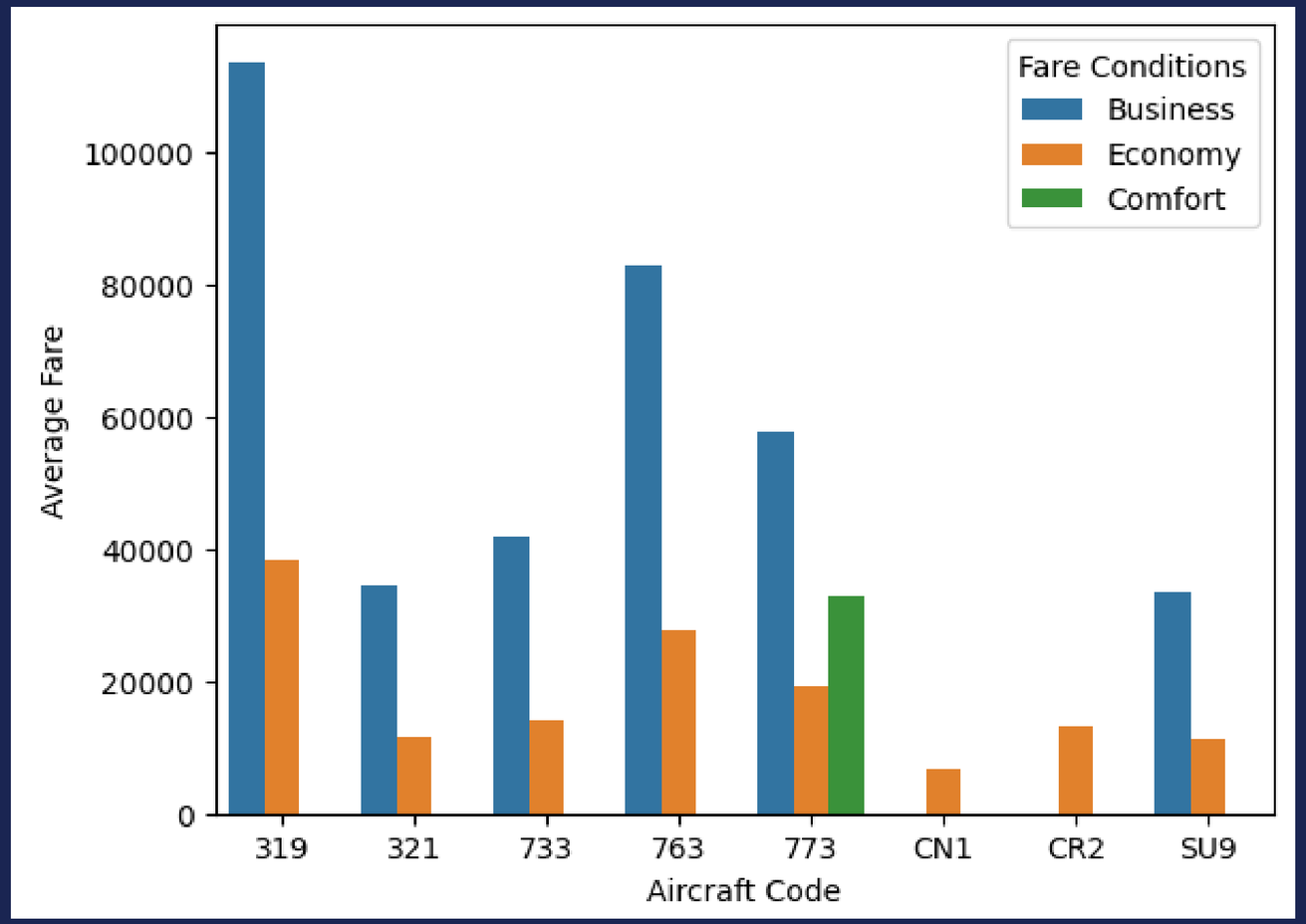


Ticket Bookings ***proportional to*** Revenue earnings

- Similar trends across both charts.
- August 14th being the highest in bookings and revenue generated.

Average fare - Each aircraft - Fare conditions

- Cost management for profitability
- Customer segmentations along with preference



Aircraft 773

Monopoly in Comfort Class

Aircraft CN1 & CR2

Single class

Aircraft 319

Superior Performer

Analysing Occupancy Rate

Every Aircraft - Yearly revenue & Avg revenue/ticket

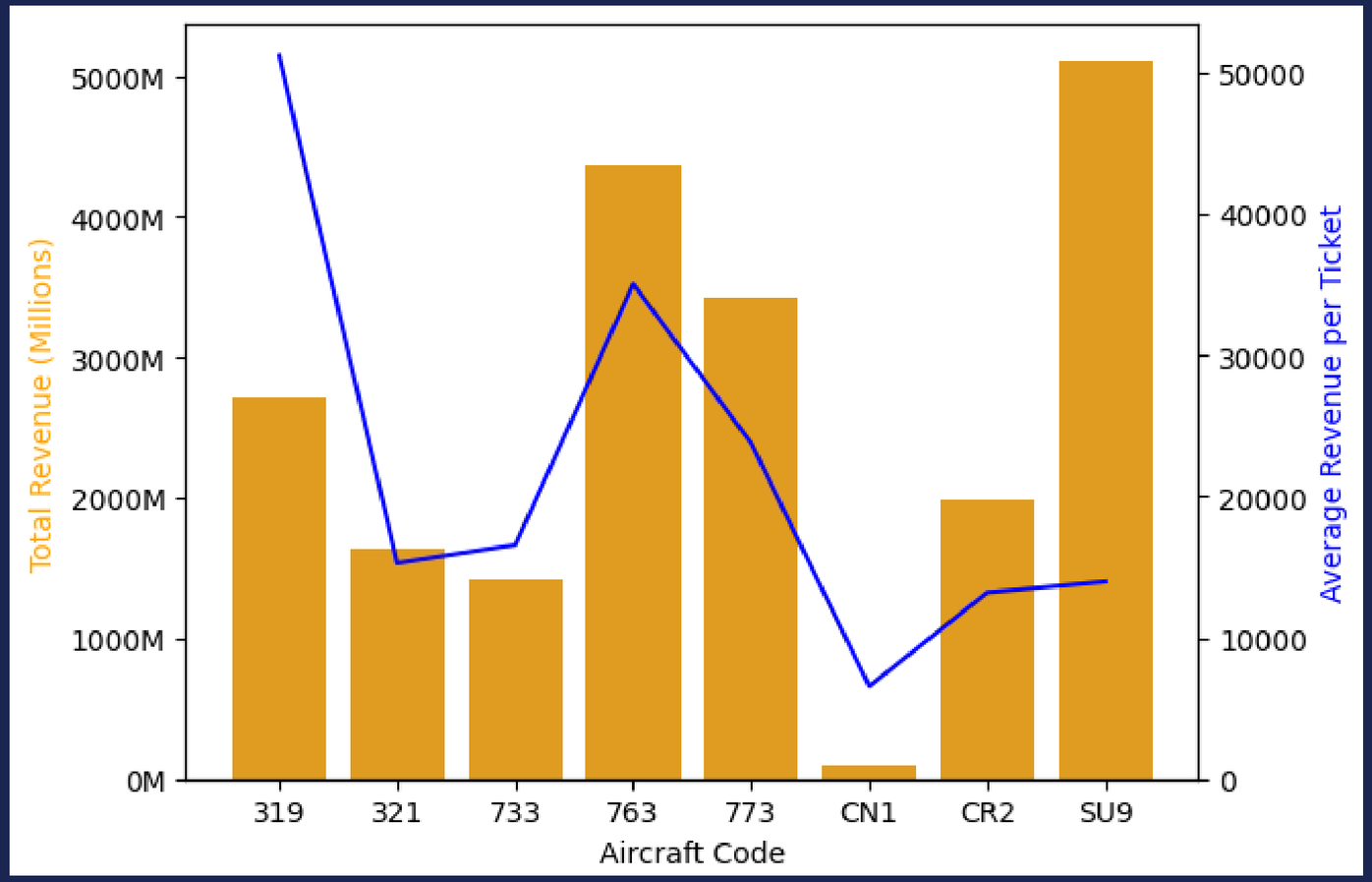
- Yearly trend analysis & Cost allocation

SU9 Aircraft - Highest revenue

- Lowest price among business-class

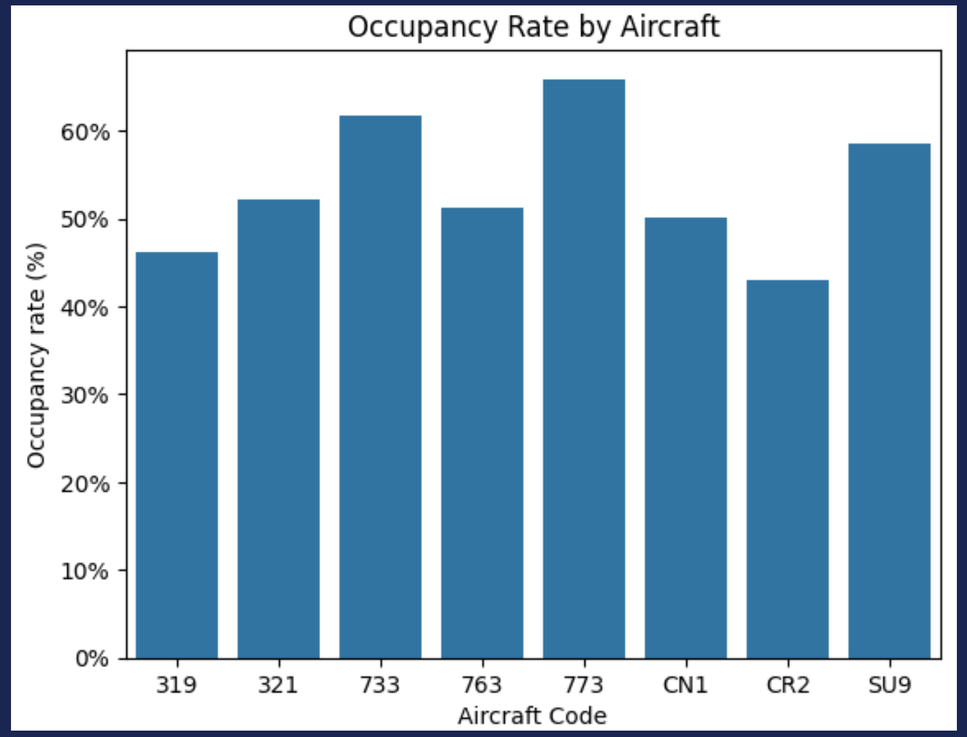
CN1 Aircraft - Least revenue generator

- No business class
- Might have poor facilities



Average Occupancy per Aircraft

- Capacity Utilisation
- Operational Efficiency



Methods:

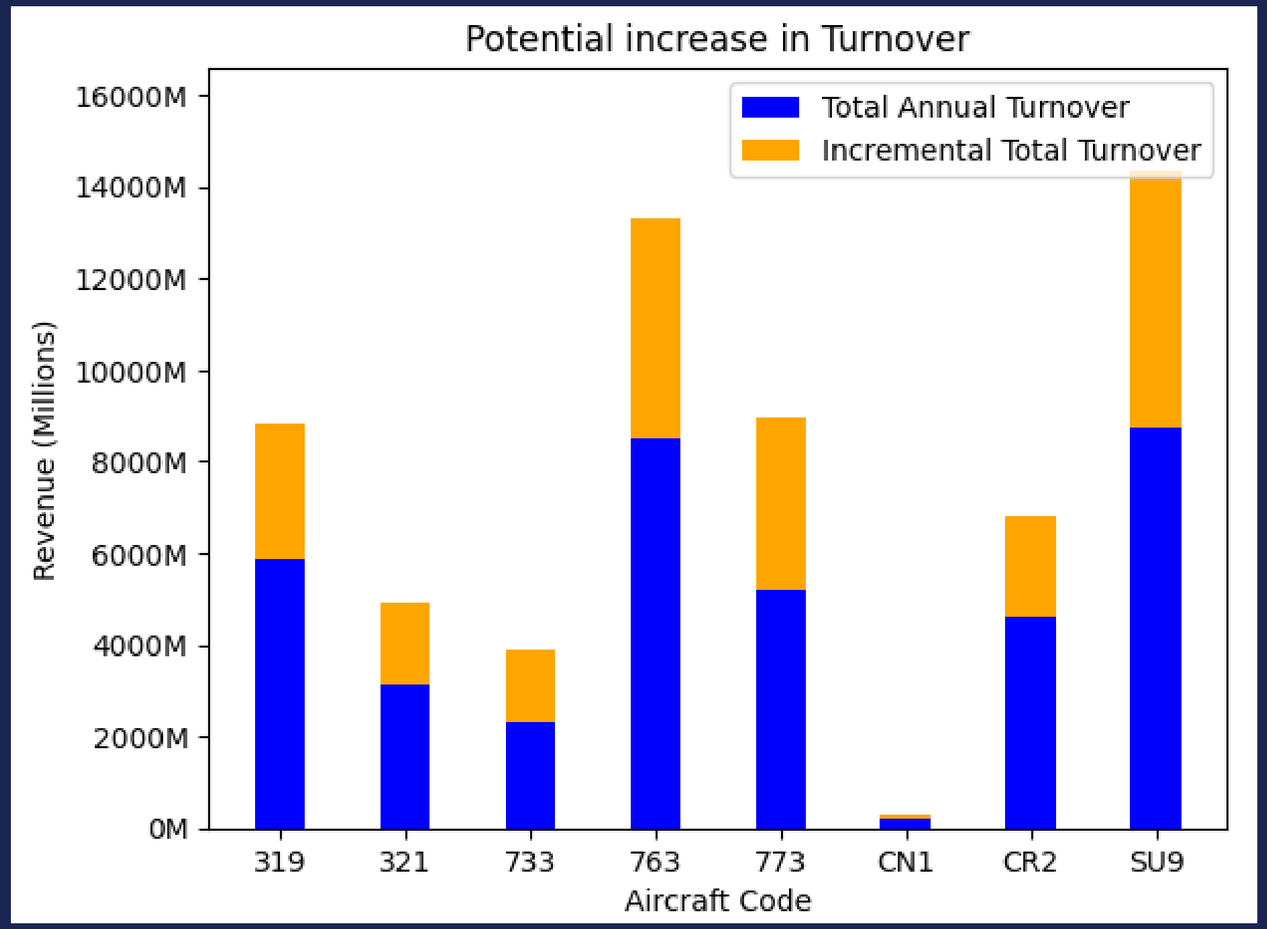
- Marketing & Promotions
- Flexible Ticketing options
- Streamlined booking process
- Targeted Sales channels

Higher occupancy rate -> Increase in Revenue -> with low operational expense

Tiny tweaks, massive benefits

Determining Potential increase in Annual Turnover

- Increasing Occupancy rate of all aircrafts by 10%



Aircraft SU9 massive potential

- Optimise pricing strategy
- Operational considerations

Conclusion

Greater Occupancy Rate

Maximize revenue while minimising costs

Proper pricing strategies

No compromise in customer experience

Balance between profit & quality service