CS5346 2023-24 OTOT Tasks C

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1 Introduction

Data source: https://www.kaggle.com/datasets/yashdharme36/airfare-ml-predicting-flight-fares

This task is done through ***Python***.

The purpose of this visualization task is to find out the relationship between the price of a plane and the destination of the flight, the distance flown, the duration of the flight, etc.

Task on Github: https://github.com/Edward-EH-Holmes/CS5346-2023-24-Own-Time-Own-Target-OTOT-Tasks/tree/main/Task%20C

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2 Visualization

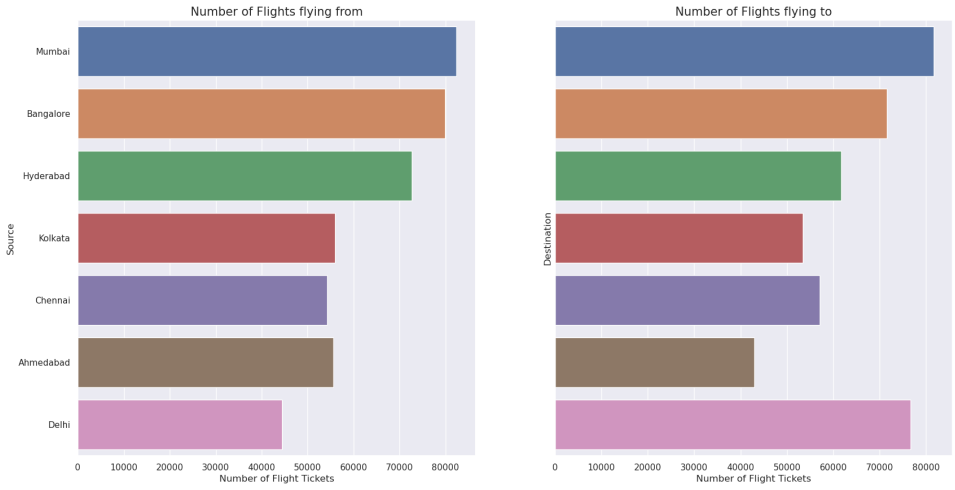

Figure 1: Number of tickets for different sources and different destinations (Bar chart)

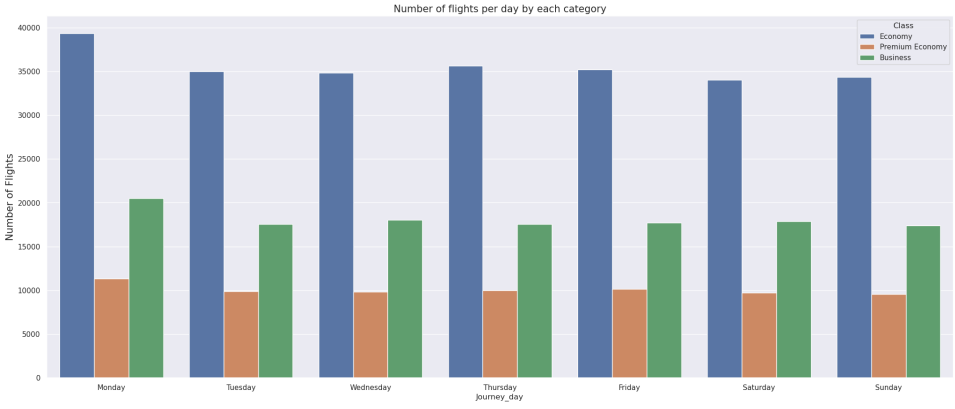

Figure 2: Number of flights per day by each category (Bar chart)

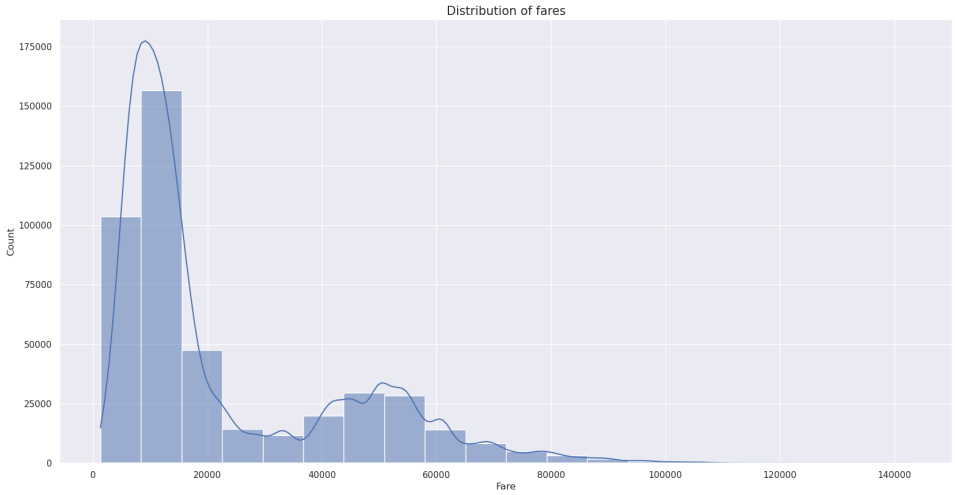

Figure 3: Distribution of fares (Line-Bar chart)

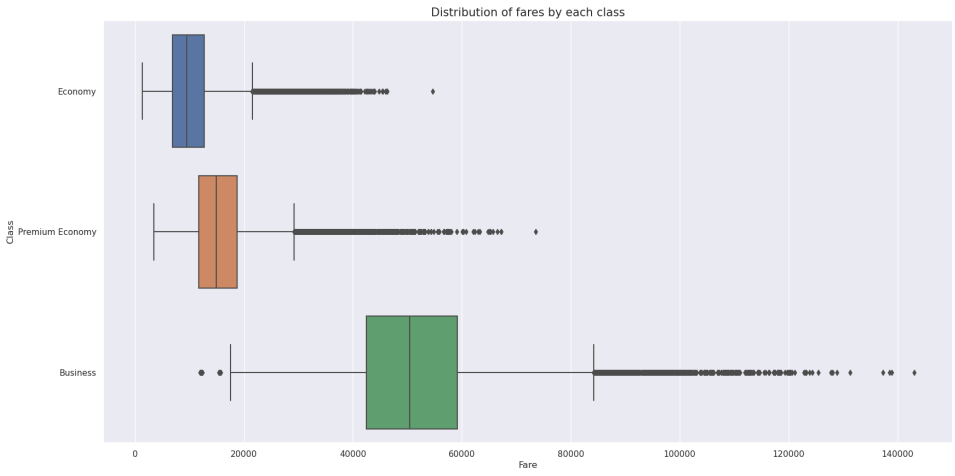

Figure 4: Distribution of fares by each class (Box plot)

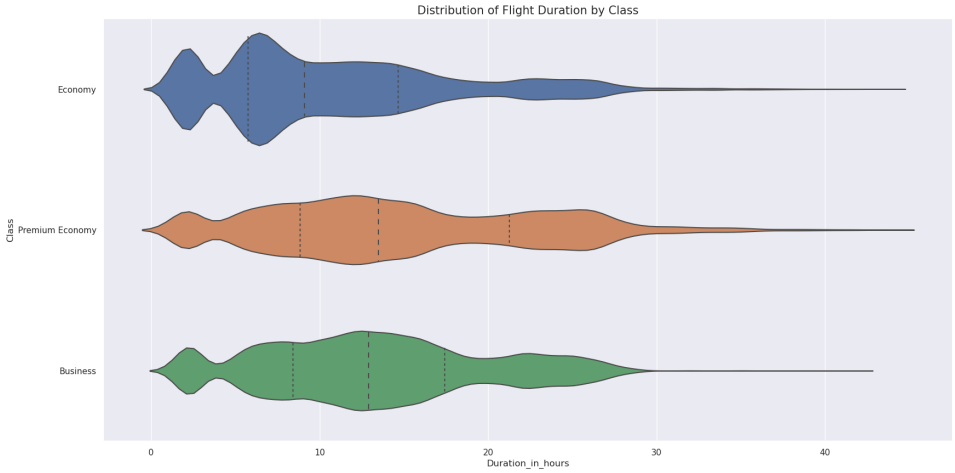

Figure 5: Distribution of Flight Duration by Class (Violin plot)

3 Conclusion

From this, we can draw the following conclusions:

- From Figure 1, the dataset includes 7 cities of India. Mumbai has the highest number of flight tickets, both to and from the city. It makes sense that Mumbai, India's most populous city and one of the world's top 10 business centers, is the most populous. Delhi, on the other hand, is the main destination for flight tickets. As the ancient capital of India, tourism is probably strong here.
- From Figure 2, number of Flights and the ticket prices are not effected by the day. In other words, they remain same on weekdays as on weekends.
- From Figure 3, ticket prices are mostly concentrated in the range of 0 20,000 Indian rupees. This may be related to sources, destinations, the distance flown, the airline, the month, etc.
- From Figure 4, generally speaking, $Business\ Tickets\ Price > Premium\ Economy\ Price > Economy\ Price$
- From Figure 5, generally speaking, the longer the Flight Duration, the more expensive the ticket. The Economy Class fare fluctuated less, followed by the Business Class.