Abstract:

This analysis utilizes a flight data set containing information such as source, destination, airline, duration, total stops, additional information, and date to identify patterns and insights for predicting flight prices. Through exploratory data analysis, it is discovered that flights without check-in baggage included have the lowest prices, while business flights have the highest prices. The distribution of additional information shows a lack of available details for many flights. Price analysis, achieved by categorizing prices and employing bar plots and box plots, reveals that flight prices are generally higher on the first and sixth days of the week, with Delhi having the highest median price followed by Kolkata and Bangalore. The impact of variables like airline, duration, total stops, and additional information on prices is examined through scatter plots, bar plots, and heatmaps, demonstrating that Jet Airways Business tends to have higher prices compared to other airlines, flights with more stops have higher median prices, and there is a positive relationship between flight duration and price. These findings offer valuable insights for airlines, travel agencies, and customers, aiding in pricing strategies, marketing campaigns, and optimizing customer choices.