

# Inferential Statistics: Exploratory Data Analysis

## Variables that are Significant in Explaining Project Questions:

How the Price will vary with different variables in consideration?

Flight Price varies due to many factors and each factor should be taken into consideration. The variables that affect the Flight Price are:

- Date of Departure: The Departure Date matters in the change of Price because of many reasons. During March and April months the Price will be higher because of more demand for tickets since families frequently travel to their natives and for holidays during that period.
- Time of Departure: Also, the time of day is important in Price variation. Early morning flights are usually of higher side of price range because most of Business flyers prefer early flights for their travel. Also late night flights are less in demand because of low travellers.
- Total Stops: The layover between flights are another factor in Price change. The more Stops in between flights accordingly the Price will also increase.
- Class of Airlines: The Class of Airlines is very important to check the variations in Price. Business and Premium classes will charge more amount for tickets compared to Economy class.

## Correlation between pairs of Variables:

What does a pair of Variables suggest when compared with each other?

- Total Stops and Duration: These two variables are interrelated with each other in a precise manner. As the total number of stops of a certain flight increases so does the duration between the Source and Arrival Destination increases. If the flight has 4 stops obviously the duration of the flights will be on the higher side than the flight with 1 stop. There is a positive correlation of 0.74 between Total Stops and Duration
- Total Stops and Price: As the number of stops increases for a flight the Price increases. The positive correlation of 0.604 can be observed between Total Stops and Price.
- Source and Price: There is also a certain correlation between Source of the flight and the corresponding Price of the flight ticket. Certain cities have a higher demand of flights to particular destination so accordingly the Price of the ticket from that Source city will be higher.