

### FLIGHT PRICE PREDICTION USING MACHINE LEARNING MODEL



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# **TOPICS**

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## INTRODUCTION

- These days, domestic air travel is becoming more and more common in India. Travellers are trying to learn how these airline companies make choices over time about ticket prices with multiple air travel booking outlets coming online.
- For a passenger, it is a time-consuming method to search websites for deals and offers. The cost can therefore depend on various variables. This venture uses AI to show the types off light tickets after some time to estimate the costs. Both organizations have the right and the ability at any time to
- change their ticket prices. By reserving a ticket at the lowest cost, explorer can set aside money. People who have travelled by flight are also aware of the variations in costs. Complex revenue control policies are used by airlines for the introduction of distinctive assessment schemes.
- As a result, the appraisal scheme adjusts the fee to adjust the header or footer on successive pages based on time, season, and festive days. The ultimate goal of the airways is to achieve profit, while the customer is looking for the minimum cost.
- Usually consumers try to book the ticket well in advance of the departure date to prevent airfare hikes as the date gets closer. But that's not the truth, really. By giving more than they should for the same seat, the customer can finish up.

# **OBJECTIVE**

- In conceptual level, there are two subtasks for selecting features and taking decision about feature combination. Execution of Building the model through Random Forest, decision tree and test the results of continuous as well as categorical data.
- Removing the elements which are of not required, duplicate and redundant information from the data collected. Limiting the caused error and through classification results we are increasing the accuracy.
- Choosing the subdivision of suitable attribute from the whole dataset. Performing statistical analysis through various test as ANOVA, Correlation and Chi-Square test.

## **Exploratory Data Analysis**

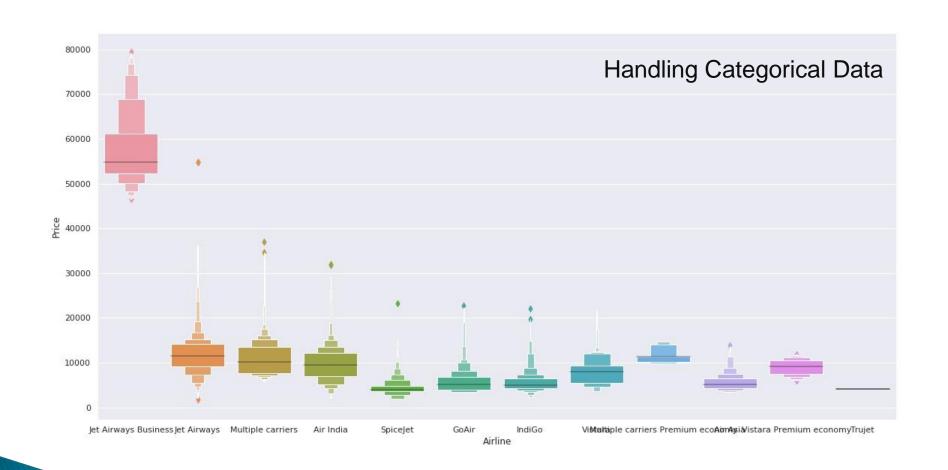
#### **Exploratory Data Analysis:**

This is unavoidable and one of the major step to fine-tune the given data set(s) in a different form of analysis to understand the insights of the key characteristics of various entities of the data set like column(s), row(s) by applying Pandas, NumPy, Statistical Methods, and Data visualization

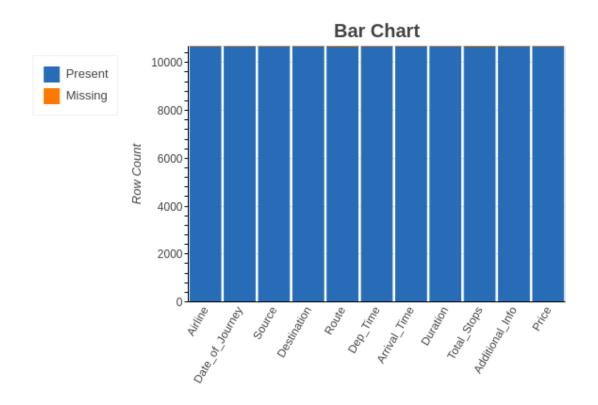
#### Out Come of this phase as below

- Understanding the given dataset and helps clean up the given dataset.
- It gives you a clear picture of the features and the relationships between them.
- Providing guidelines for essential variables and leaving behind/removing non-essential variables.
- > Handling Missing values or human error.
- Identifying outliers.
- > EDA process would be maximizing insights of a dataset.
- This process is time-consuming but very effective, the below activities are involved during this phase, it would be varied and depends on the available data and acceptance from the customer.

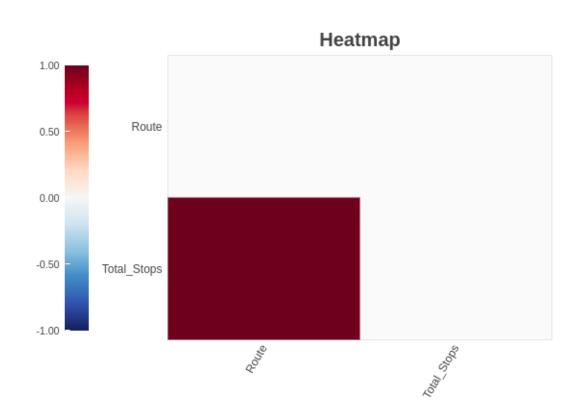
# Airline variable is related to the Price variable.



# **BAR-CHART, SPECTRUM**



# **HEAT MAP (missing values )**



# CONCLUSION

- For the prediction of the tickets price perfectly different prediction models are tested for the better prediction accuracy
- > As the pricing models of the company are developed in order to maximize the revenue management. With the help of our project the travellers can find out the right time to buy their tickets at the lowest cost and also can plan accordingly.
- So to get result with maximum accuracy regression analysis is used. From the studies, the feature that influences the price ticket are to be considered. In future the details about number of available seats can improve the performance of the model.

# THANK YOU