**Question:** 1. Predict Hotel Availability Travel Express Is An Online Hotel Booking Agency. They Focus On Improving The Travel Experiences Of Their Customers Using Cutting Edge Innovations In The Field. Travel Express Has Noticed That Customers Are Not Happy With Hotels That Suddenly Become Unavailable For Booking. A Hotel That Accepts Bookings Throughout The Year

1. Predict Hotel Availability

Travel Express is an online hotel booking agency. They focus on improving the travel experiences of their customers using cutting edge innovations in the field.

Travel Express has noticed that customers are not happy with hotels that suddenly become unavailable for booking. A hotel that accepts bookings throughout the year adds value to the Travel Express Platform. Travel Express has decided to fund the hotels based upon their commitment to yearly availability.

Using machine learning, help Travel Express identify the hotels that accept bookings for 365 days a year. Explain how different features affect the decision.

Files

train.csv

test.csv

sample\_output.csv

Problem

Perform an analysis of the given data to determine how different features are related to the completion of the analysis. Build a machine learning model that can predict yearly\_availability.

For each record in the test set (test.csv), predict the value of the yearly\_availability variable (0 or 1). Submit a CSV file with a header row plus each of the test entries, each on its own line. The file (submissions.csv) should have exactly 2 columns:

id

yearly\_availability (contains 0 or 1)

Deliverables

Well commented Jupyter notebook

“submissions.csv”

Explore the data, make visualizations, and generate new features if required. Make appropriate plots, annotate the notebook with markdowns and explain necessary inferences. A person should be able to read the notebook and understand the steps taken as well as the reasoning behind them. The solution will be graded on the basis of the usage of effective visualizations to convey the analysis and the modeling process.

Evaluation Metric

Accuracy = Number of correct predictions/ Total number of predictions