Q1. **Loading the flight price dataset and examining its dimensions:**

- We'll first import the dataset using a library like pandas in Python.
- Then, we'll use the **.shape** attribute to find the number of rows and columns in the dataset.
-

Q2. **Analyzing the distribution of flight prices:**

- We'll create a histogram of the flight prices to visualize their distribution.
- This will give us insights into the spread and central tendency of the prices.
-

Q3. **Determining the range of prices:**

- We'll find the minimum and maximum prices in the dataset to calculate the price range.
- This will help us understand the spread of prices and identify any outliers.
-

Q4. **Exploring price variation by airline:**

- We'll create a boxplot to compare the prices of flights offered by different airlines.
- This will allow us to see how prices vary across different airlines and identify any outliers or patterns.
-

Q5. **Identifying potential outliers:**

- We'll use the boxplot created in the previous step to identify any flights with prices significantly higher or lower than the norm.
- Outliers may impact our analysis by skewing statistical measures or affecting model performance.
-

Q6. **Identifying the peak travel season:**

- We'll analyze features such as date/time of flights, seasonal trends, and booking patterns to identify periods of high demand and consequently, peak travel season.
- Visualizations like line plots or bar plots can effectively showcase fluctuations in flight prices over time.

Q7. **Identifying trends in flight prices:**

- We'll analyze features such as date/time of flights, airline, departure/arrival locations, and booking class to identify trends and patterns in flight prices.
- Visualizations like line plots, scatter plots, or heatmaps can help us visualize these trends effectively.

Q8. **Identifying factors affecting flight prices:**

- We'll analyze various features such as airline, departure/arrival locations, time of booking, and booking class to identify factors affecting flight prices.
- Techniques like regression analysis, correlation matrices, or interactive visualizations can help us highlight relationships between different factors and flight prices.