

# **AIRCRAFTS FOR COMMERCIAL AND PRIVATE ENTERPRISES PROJECT**

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# PROJECT AIM

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- The main objective of this data analysis project is to determine the lowest risk aircraft to purchase.
- **Specific Objectives**
  - Identify private aircrafts with lowest risk for purchase
  - Identify commercial aircrafts with lowest risk to purchase.

# IMPORTANCE OF ASSESSING RISK IN AIRCRAFT PURCHASES

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- Assessing risk is crucial in aircraft purchases as it can help buyers(the company) make informed decisions, avoid costly repairs, and ensure the safety of passengers and crew.

# DATA SOURCE AND DATA EXPLORATION

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- This data comes from Kaggle competition ( [dataset Links to an external site](#)) from the National Transportation Safety Board that includes aviation accident data from 1962 to 2023 about civil aviation accidents and selected incidents in the United States and international waters.

# DATA ANALYSIS

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- After undertaking data cleaning which involves technical tools eg. Pandas, the next step is to analyze the cleaned data.
- Divide the data into two categories;
  1. For private enterprise aircrafts
  2. For commercial purpose aircrafts



# FINDINGS

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- **There are two main categories of aircrafts**

## **1. Private Aircrafts**

- Small Private Aircrafts
- Midsize Private Aircrafts
- Large Aircrafts

## **2. Commercial Aircrafts**

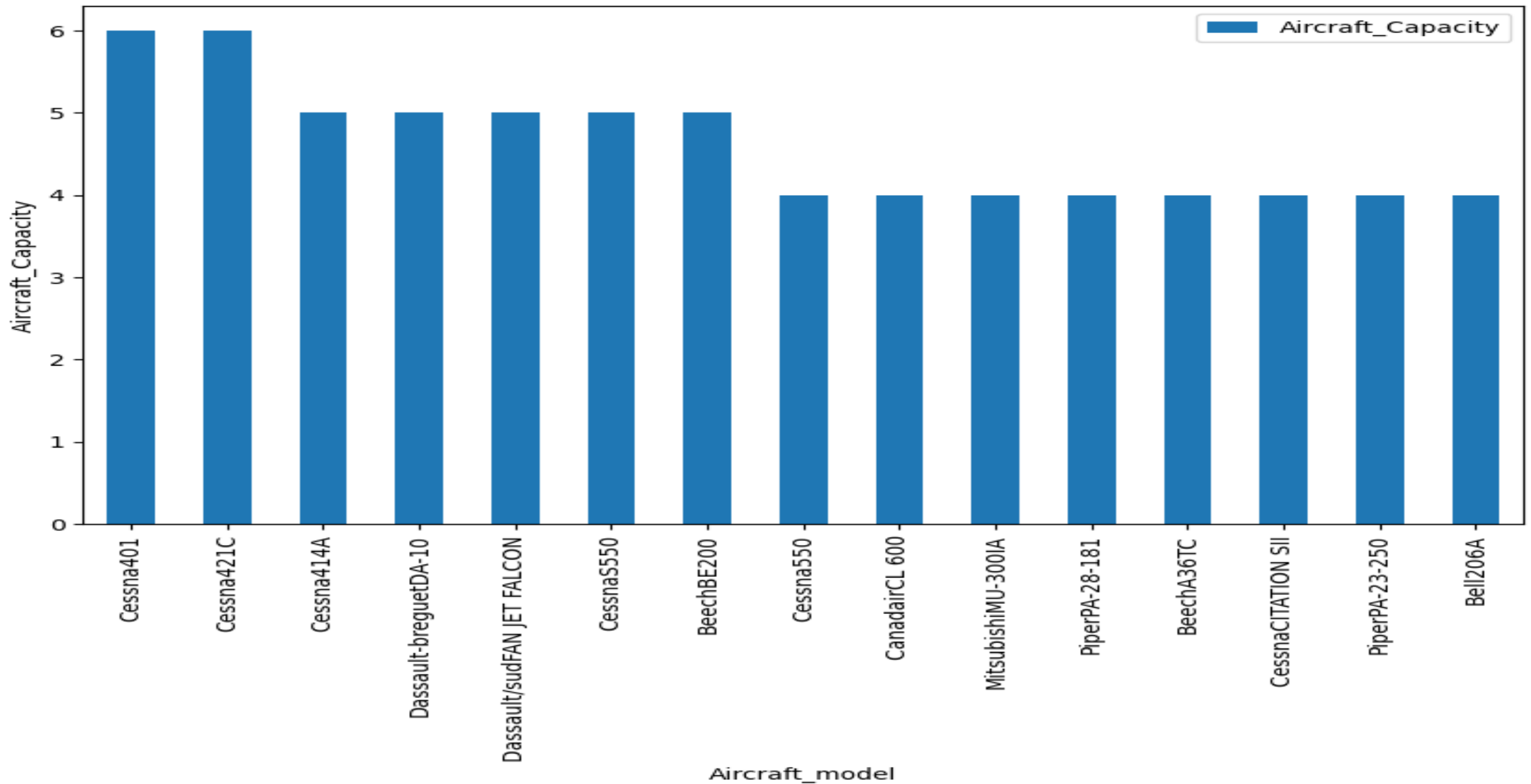
# 1. PRIVATE AIRCRAFTS

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## Small Private Aircrafts

- Here are upto 15 different aircraft models to consider for purchase.

CAPACITY OF SMALL PRIVATE AIRCRAFTS



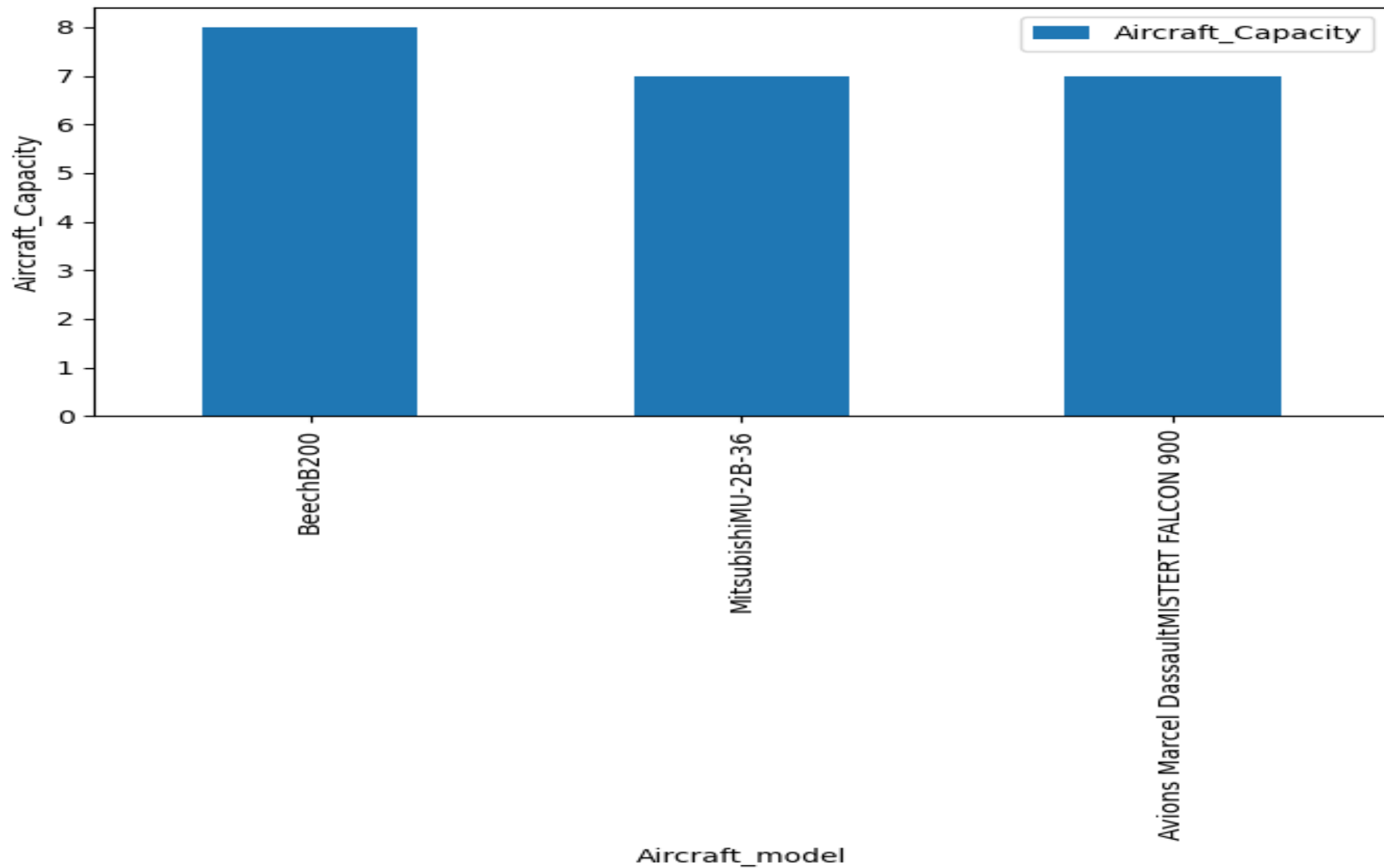


# MIDSIZE PRIVATE AIRCRAFTS

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- We have 3 choices of aircraft models to choose from for consideration of purchase.

CAPACITY OF MIDSIZE PRIVATE AIRCRAFTS

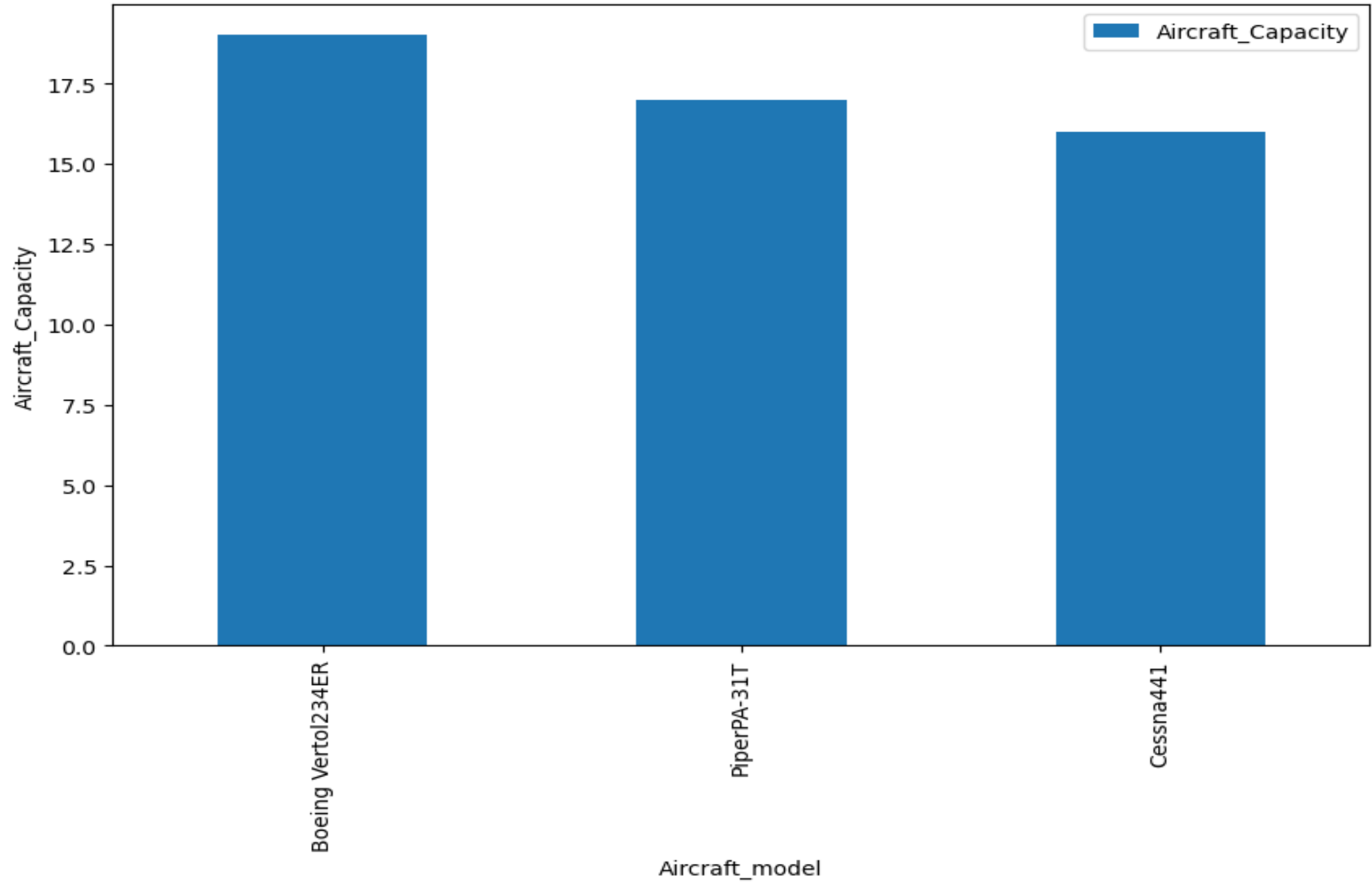


# LARGE PRIVATE AIRCRAFTS

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- There are 3 different aircraft models to select from for purchase consideration.

CAPACITY OF LARGE PRIVATE AIRCRAFTS

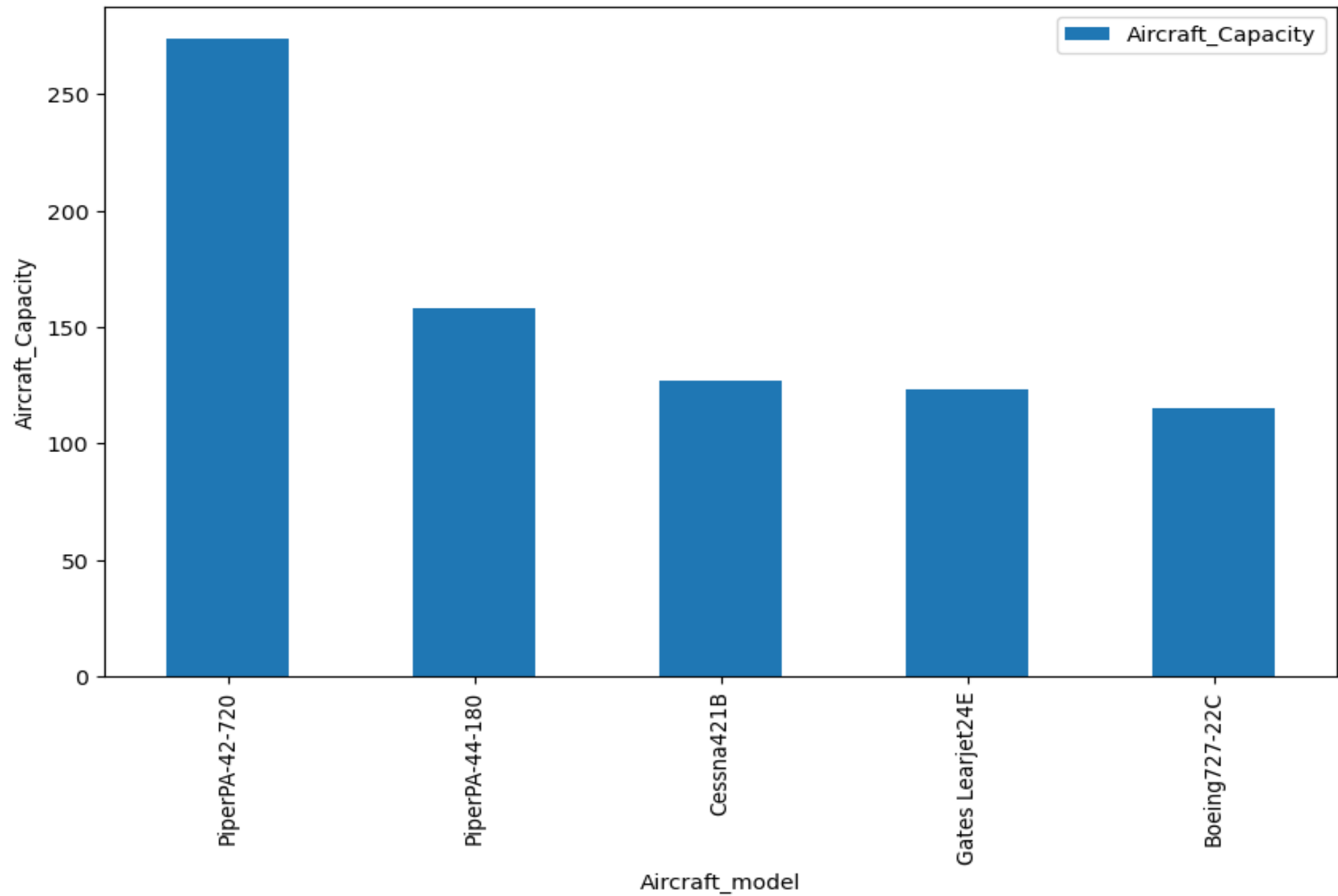


## 2. COMMERCIAL AIRCRAFTS

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- Here we found 5 different aircraft models with varying carrying capacity ranging from 274 being the largest to 115 capacity being the lowest.

CAPACITY OF COMMERCIAL AIRPLANES





# RECOMMENDATIONS

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- From this Analysis, I strongly suggest that the company purchase the following aircraft models;1

# 1. SMALL PRIVATE AIRCRAFTS

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- The company to consider purchasing either the Cessna 401 or Cessna 421C aircraft models due to its capacity of 6 persons which is the maximum in this category.

## 2. MIDSIZE PRIVATE AIRCRAFTS

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- The company to consider the purchase of Beech B200 with a carrying capacity of 8, which is the largest in this category.

### 3. LARGE PRIVATE AIRCRAFTS

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- The company to consider the purchase of Boeing Vertol 234ER for its carrying capacity of 19 persons, which is the highest in this category.

## 4. COMMERCIAL AIRCRAFTS

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- The company to consider the purchase of Piper PA-42-720 due to its carrying capacity of 274 persons, taking into account that the more the passengers the more the profits to be made.



# QUIZ SEGMENT

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- Questions