**1.analyze\_flight\_kilometers\_vs\_load\_factor(file\_path)**

This function analyzes the correlation between flight kilometers and load factor from the provided dataset.

**file\_path (str)**: The path to the CSV file containing the flight data.

* This function reads the dataset from the given CSV file and checks for the existence of two specific columns: Kms (Thousands)(AF) and PAX load %.
* If both columns are present, it performs the following operations:
  1. Creates a scatter plot showing the relationship between Flight Kilometers (Thousands) and Load Factor (%).
  2. Calculates and prints the correlation coefficient between these two variables.
* If either of the required columns is missing, the function will display an error message.
* If the file is not found, it will display an error message indicating that the file path is incorrect.
* Any other errors during execution are caught and displayed.

**2.analyze\_total\_ton\_kilometers(file\_path)**

This function analyzes the Total Ton-Kilometers performance over time using the provided dataset.

**file\_path (str)**: The path to the CSV file containing the flight data.

* This function reads the dataset and checks for the presence of two specific columns: Avail TONNE KMS (Millions) and Month.
* If both columns are available, it:
  1. Creates a line plot to visualize the available ton-kilometers (in millions) over time, where the x-axis represents the Month and the y-axis represents the Available Tonne-Kilometers (Millions).
* If either of the required columns is missing, an error message is displayed.
* If the file path is incorrect or the file is missing, a corresponding error message is shown.
* Other unexpected errors are also caught and displayed.

**3.analyze\_freight\_months(file\_path)**

This function identifies the months with the highest and lowest Freight Ton Kilometers in the given dataset.

**file\_path (str)**: The path to the CSV file containing the flight data.

* This function reads the dataset and checks for the presence of two specific columns: Freight TON KM Performed and Month.
* If both columns are found, it:
  1. Identifies the month with the highest Freight TON KM Performed and the month with the lowest Freight TON KM Performed.
  2. Prints the names of the months with the highest and lowest freight ton kilometers.
* If either of the required columns is missing, the function will display an error message.
* If the file path is incorrect or the file is missing, an error message is displayed.
* Other unexpected errors are caught and shown.