**Project Proposal: Time Series Analysis and Forecasting of Airline Passengers**

**Project Title:**

Forecasting Monthly Airline Passenger Numbers Using Time Series Analysis

**Background and Motivation:**

The Air Passengers dataset contains monthly totals of US airline passengers from 1949 to 1960. This classic time series is widely used to demonstrate forecasting methods and analyze trends and seasonality in air travel demand. Accurate forecasting of passenger numbers is crucial for airlines and airports to optimize resource allocation, improve customer experience, and plan for future growth.

**Objective:**

To analyze historical trends and seasonal patterns in airline passenger data.

To build and evaluate predictive models for forecasting future passenger numbers.

To visualize findings and provide actionable insights for airline operations and planning.

**Team Members:**

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**References :**

https://www.kaggle.com/datasets/chirag19/air-passengers