**Introduction:**

"Exploring Insights from Synthetic Airline Data Analysis with Qlik" involves utilizing synthetic airline data to derive valuable insights and patterns using Qlik. A Qlik is a business intelligence and data visualization tool.

In this project,

the synthetic airline data simulates various aspects of airline operations, including flight schedules, passenger information, ticket sales, country detail and performance metrics. The objective is to leverage Qlik's analytical capabilities to uncover patterns, trends, and correlations within this data, aiding in decision-making processes for airlines, airports, and related stakeholders.

**Scenario 1: Revenue Optimization**  
An airline wants to optimize its revenue by analyzing historical ticket sales data, identifying peak travel times, popular destinations, and pricing strategies. Using Qlik, they can visualize revenue trends over time, segment customers based on purchasing behavior, and adjust pricing strategies accordingly to maximize profitability.

**Scenario 2: Operational Efficiency**  
An airport authority aims to enhance operational efficiency by analysis flight schedules, passenger flows, and luggage handling processes. By integrating Qlik with synthetic airline data, they can identify bottlenecks in airport operations, predict peak traffic periods, and allocate resources effectively to streamline processes and improve overall efficiency.

**Scenario 3: Safety**

It making sure that flights are safe for passengers and that airlines follows the rules and regulations.

By analysing data about past incidents, they can learn from mistakes and make improvements to keep everyone safe.

**Scenario 4: Customer Experience Enhancement**  
Airlines are keen to enhance the passenger experience by understanding customer preferences, satisfaction levels, and pain points. Through sentiment analysis on customer feedback data integrated with Qlik, airlines can identify areas for improvement, personalize services, and tailor marketing campaigns to better meet customer needs, ultimately fostering loyalty and satisfaction.

**Technical Architecture:**

We extract the data file from data source and upload it on the qlik where we create are app.

Then analyse this data and remove unwanted data and create the dashboard or a visualization of data for better understanding and enhancing the user experience.

Visualization

User

Qlik

Data source

(CSV file)