Project Proposal -Group 11

## Introduction

The airline industry's vitality hinges on passenger satisfaction, making creating and analyzing a comprehensive dataset imperative. Airlines can deliver tailored services, increase customer loyalty, and optimize operations by understanding passenger preferences and pain points across the travel journey. This data-driven approach offers the potential for significant impacts, from enhancing customer retention and reducing operational costs to informing strategic decisions and benchmarking against competitors. In an era of intense competition and rapidly evolving customer expectations, this dataset's insights promise to empower airlines to not only thrive but also excel in a dynamic and challenging market, ultimately redefining the industry's future.

## Data Description

At a macro level, this Kaggle-sourced dataset encompasses diverse attributes covering passenger demographics, travel context, flight details, satisfaction ratings across various facets of the travel experience, operational information, customer loyalty categorization, and an overall satisfaction metric. These dimensions collectively offer a comprehensive view of factors influencing passenger contentment and dissatisfaction, enabling airlines to glean insights for service enhancements, operational efficiency, and strategic decision-making in the highly competitive airline industry.

## Problem Statement

This project endeavors to:

1. Identify Key Satisfaction Factors: Explore factors contributing to passenger satisfaction or dissatisfaction, guiding airlines to improve specific aspects of the travel experience.
2. Understand Customer Behavior: Analyze demographics and preferences to understand customer personas, aiding in personalized service delivery.
3. Predict Satisfaction: Develop predictive models to anticipate passenger satisfaction, enabling proactive service adjustments.
4. Enhance Practices: Identify best practices for improving satisfaction, fostering operational efficiency, and tailoring services for different customer segments.

## Dataset Description

We shall be using a second-hand dataset from **Kaggle**: **Airline Passenger Satisfaction**

Dataset link: <https://www.kaggle.com/datasets/teejmahal20/airline-passenger-satisfaction?select=train.csv>

## Group Members

* Prathamesh P Nagraj
* Dhruv Shah
* Shreya Mali
* Sahithi