PHASE 1 PROJECT PROPOSAL

PROJECT TITLE:

Aviation Safety Analysis for Business Expansion

PROJECT OVERVIEW :

My project will analyze aviation accident data from the National Transportation Safety Board (NTSB) from 1962–2023 to determine which aircraft types are the safest. I will use data cleaning, imputation, analysis, and visualization to generate actionable business recommendations to help the company in decision making .

BUSINESS UNDERSTANDING :

The company is expanding into aviation but lacks knowledge of the risks involved with different aircraft. Our goal is to identify low-risk aircraft types based on historical accident data and recommend the options for purchase.

DATA UNDERSTANDING :

Data source : We will use the data from National Transportation Safety Board
We will do data cleaning in order to handle missing values, filter relevant fields. We will also Group accidents by aircraft type, year, and other key variables.

Data Analysis:

Data analysis : Calculate accident rates, severity, and trends .
Visualization: Create charts for example bar graphs, line plots to present our findings.
Interactive Dashboard: Build a dashboard likely using Tableau to allow stakeholders to explore accident trends by aircraft type

RECOMMENDATIONS :

Recommend at least three aircraft types models with the lowest accident rates and least severe accidents. Advise on potential risk factors to monitor post-purchase.

NEXT STEP :

Suggest best practices for safer operations based on historical data. After going through all the data the company can now purchase our aircraft

THANK YOU