PROJECT OBJECTIVES

Project name	DEVELOPING A FLIGHT DELAY PREDICTION USING MACHINE LEARNING
Team id	PNT2022TMID43039

ABSTRACT:

Over the last twenty years, air travel has been increasingly preferred among travelers, mainly because of its speed and in some cases comfort. This has led to phenomenal growth in air traffic and on the ground. An increase in air traffic growth has also resulted in massive levels of aircraft delays on the ground and in the air. These delays are responsible for large economic and environmental losses. The main objective of the model is to predict flight delays accurately in order to optimize flight operations and minimize delays.
Using a machine learning model, we can predict flight arrival delays. The input to our algorithm is rows of feature vector like departure date, departure delay, distance between the two airports, scheduled arrival time etc. We then use decision tree classifier to predict if the flight arrival will be delayed or not. A flight is considered to be delayed when difference between scheduled and actual arrival times is greater than 15 minutes. Furthermore, we compare decision tree classifier with logistic regression and a simple neural network for various figures of merit.
1.Understand if it is what type of problem

- Regression (or)
- Classification

2.preprocess the dataset

- By using pre-processing techniques
    - Check null values
    - Drop the unnecessary column
    - Perform categorical operations

3.Analysis the dataset through visualisations

- Univariate analysis
- Bivariate analysis
- Multivariate analysis

4.Applying different algorithms

- ML algorithms

5.Build the web application

- Using flask