**FLIGHT DELAY PREDICTION USING MACHINE LEARNING**

PPROBLEM STATEMENT:

* In this project, the goal is to use exploratory analysis and to build **machine learning** models to **predict airline** departure and arrival **delays**.

OBJECTIVES:

* Flight delays are gradually increasing and bring more financial difficulties and customer dissatisfaction to airline companies.
* To resolve this situation, supervised machine learning models were implemented to predict flight delays.
* The data set that records information of flights departing from JFK airport during one year was used for the prediction.
* The comparative analysis showed that the Decision Tree algorithm has the best performance with an accuracy of 0.9777, and the KNN algorithm has the worst performance with an f1-score of 0.8039.
* Tree-based ensemble classifiers generally have better performance over other base classifiers.

ALGORITHM:

* Logistic Regression,
* K-Nearest Neighbor,
* Gaussian Naïve Bayes,
* Decision Tree,
* Support Vector Machine,
* Random Forest.