

Ideation Phase

Define the Problem Statements

Date	19 September 2022
Team ID	PNT2022TMID04987
Project Name	Developing A Flight Delay Prediction Model Using Machine Learning
Maximum Marks	2 Marks

Customer Problem Statement Template:

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 vectors like departure date, departure delay, distance between the two airports, scheduled arrival time etc. We then use a decision tree classifier to predict if the flight arrival will be delayed or not. A flight is considered to be delayed when the difference between scheduled and actual arrival times is greater than 15 minutes. Furthermore, we compare decision tree classifiers with logistic regression and a simple neural network for various figures of merit.

Reference: <https://miro.com/templates/customer-problem-statement/>

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Easy to know	Know if there is any delay	They are easy to use.	They are helpful	Good to know the update
PS-2	The person who is helping my customer.	Predict the delay	Won't be able to if	There is no resource	Good as we are able to help people.

Flight Delay Prediction Model :

