

# Problem Statement

Date	18-Nov-22
Team ID	PNTIBM2022TMID52214
Project Name	Developing a Flight Delay Prediction Model Using Machine Learning
Maximum Marks	8 marks

## Problem Statement:

A problem statement is important to a process improvement project because it helps clearly identify the goals of the project and outline the scope of a project. It also helps guide the activities and decisions of the people who are working on the project. The problem statement can help a business or organization gain support and buy-in for a process improvement project. 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. As explained, the goal of this project is to estimate the probability of any flight to be more than  $x$  minutes late, for any  $x$  being the difference between the total connection time and the time to go to the departure gate. Moreover, as we would like to give this information to the customer during the search and reservation process, the model will have to give long-term predictions, up to several months forward, and will not take into account short-term effects, like current weather or traffic situation. This model will be based on the one-year dataset of flight delays.