

**Project Design Phase-I**  
**Proposed Solution Template**

Date	8 November 2022
Team ID	PNT2022TMID06101
Project Name	Project – Flight Delay Prediction
Maximum Marks	2 Marks

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Flight delays have been the most challenging area for airlines to improve. They have been affecting the air industry directly and indirectly causing unforeseen expenses thereby reducing the reputation of the industry and the airlines. Thus, knowing if a flight would be delayed beforehand can let passengers and airlines be prepared for the circumstances. This solution aims at making it possible by predicting arrival and departure delays using Machine learning.
2.	Idea / Solution description	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.
3.	Novelty / Uniqueness	The solution takes into account all possible reasons for delay(crew delays, weather, air traffic, aircraft type) to provide an accurate prediction. Apart from predicting arrival delays, departure delays are also predicted in order for the passengers to prepare accordingly and for the airline to make arrangements suitably.
4.	Social Impact / Customer Satisfaction	By predicting the flight delay in advance the passengers can plan accordingly.
5.	Business Model (Revenue Model)	Knowing the probability of flight delay or cancellation is a crucial tool for travellers, so we set about creating a model to predict long-term flight delays. Rather than looking at disruptions caused by punctual factors like weather, we wanted to see which flights and itineraries had the highest probability of delays or cancellations over time
6.	Scalability of the Solution	It increase the customer satisfaction and maintaining the schedules by the airline agencies and increases the income.