Project Design Phase-I
Proposed Solution

Date	24 September 2022
Team ID	PNT2022TMID29843
Project Name	Developing a flight delay prediction model using machine learning.
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	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 isto predict flight delays accurately in order to optimize flight operations and minimize delays.
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. 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.
3.	Novelty / Uniqueness	we compare decision tree classifier with logistic regression and a simple neural network for various figures of merit.
4.	Social Impact / Customer Satisfaction	Time management will be the social impact and passengers can plan accordingly.
5.	Business Model (Revenue Model)	➢ Low-cost airline business model. ➢ B2C business Model.
6.	Scalability of the Solution	Any type of flight delays can be known and it provide maximum accuracy.