Project Design Phase-I
Proposed Solution Template

Date	25 September 2022
Team ID	PNT2022TMID-12025-1659366516
Project Name	Project - 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)	The main objective of the model is to predict flight delays accurately in order to optimize flight operations and minimize delays.
2.	Idea / Solution description	Using a machine learning model, prediction of flight arrival delays can be done.. The input to the algorithm is rows of feature vector like departure date, departure delay, distance between the two airports, scheduled arrival time etc. Then a decision tree classifier is used to predict if the flight arrival will be delayed or not.
3.	Novelty / Uniqueness	Unlike other models here, comparison of decision tree classifier with logistic regression and a simple neural network for various figures of merit is performed for better efficiency of prediction.
4.	Social Impact / Customer Satisfaction	1. Ease of customer to find out available flights. 2. Happiness of customer. 3. Protect the reputation of the airlines. 4. Reduce the extra expenses for the customer and airlines.
5.	Business Model (Revenue Model)	The model used is Paywall(Subscription) where customers will be able to use some features of the app for free and other premium features as a subscriber.
6.	Scalability of the Solution	As the dataset size is huge, the noise associated with the data is also huge and the preprocessing to be done is also high in this case. The amount of the data that is to be processed for the given dataset is extremely huge so as a result high configuration devices are used to process these huge data. The response of the data is purely dependent on the data which is collected from the previous records.