Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID24557
Project Name	Project –developing a flight delay prediction using machine learning
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 can be very annoying to airlines, airports, and passengers. Moreover, the development of accurate prediction models for flight delays became very difficult due to the complexity of air transportation flight data. In this project, we try to resolve this problem with approaches used to build flight delay prediction models using machine learning
2.	Idea / Solution description	In the past years, several machine learning algorithms have been proposed to predict flight delays. Most studies predict flight delays using (i) binary classifiers (delayed/not delayed flight), (ii) multi-class classifiers (multiple delay classes), or (iii) regression (estimating the delay value).
3.	Novelty / Uniqueness	In this project we use anaconda navigator , Scikit-learn ,NumPy, Pandas, flask ,Matplotlib. These makes project as more unique than other ways in fight delay prediction
4.	Social Impact / Customer Satisfaction	This has a major impact on the passengers' experience and social welfare, as it has been estimated that a 31.6% of the flights were delayed. Except from the direct impact on passengers, there are also impacts on airlines, in terms of fines and operational costs as well as the environment, in terms of increased fuel consumption or emissions of an inefficient system. Accordingly, Improving the understanding and prediction of delay is in the best interest of many stakeholders in air transportation, including air navigation service providers and network managers, as well as passengers.
5.	Business Model (Revenue Model)	The application of machine learning to business processes has led to higher levels of acceleration, growth, and adaptability than ever before. Revenue model should look to

		incorporate machine learning and to secure better market position and competitive differentiation.
6.	Scalability of the Solution	Machine learning scalability is scaling ML models to handle massive data sets and perform many computations in a cost-effective and time-saving way of flight delay prediction