Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID12895
Project Name	Machine Learning-Based Predictive Analytics for Aircraft Engine
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)	Aircraft engines suffer failure of components very frequently. Sometimes, these failures can go overlooked resulting in catastrophic mid-air engine failures.
2.	Idea / Solution description	Use Machine Learning model to accurately predict if an aircraft engine is in a safe condition to fly.
3.	Novelty / Uniqueness	This model will take a number of parameters from a variety of sensors into account before coming to a conclusion about the status of a given aircraft engine.
4.	Social Impact / Customer Satisfaction	This model helps in accurately predicting the status of an aircraft engine (safe/unsafe). If implemented properly, this model could save lives by preventing unsafe engines from being flown.
5.	Business Model (Revenue Model)	This solution in itself can be monetized and offered on a pay-as-you-go basis. Or, the model can be sold on a one-time payment.
6.	Scalability of the Solution	Since, this solution is proposed as a web application, it can be easily scaled as per the requirement to different web servers using load balancing etc. Depending the requirement of each air carrier which utilizes the solution, a number of machine learning models, trained using a diverse range of datasets using different learning models can be used.