Project Design Phase – I

PROBLEM SOLUTION FIT

TEAM ID	***PNT2022TMID44328***
PROJECT TITLE	***Machine Learning-Based Predictive Analytics for Aircraft Engine***
DATE	***19 October 2022***

1.CUSTOMER SEGMENTS *Customers are businessmen, student, tourist, traveler and all the people traveling in flight.*	***4.CUSTOMER LIMITATIONS*** *Customers require accurate and early predictions of the flight engine failure. And they also look for an alternate solution.*	***5.AVAILABLE SOLUTIONS*** *The reliability analysis of aircraft engines is essential for ensuring the smooth functioning of each component of an aircraft engine.*
2.PROBLEM *Engine failure occurs when a turbine engine unexpectedly stops producing power due to malfunction. This lead to a lot of customer dissatisfaction.*	***6PROBLEM ROOT / CAUSE*** *The root cause of the problem is unforeseen & unpredictable engine failure that cause cancellations and arrival, departure delays.*	***7.BEHAVIOR*** *The purpose of this research is to develop methods that can be used to generate reliable and timely alerts*
3.TRIGGERS TO ACT *To accurately predict the failure of an engine and track the flight.* ***4.EMOTIONS*** *The aircraft engine failure occurs, passengers often get annoyed and frustrated. They also might lose to reach on time to some important occasions.*	***10. SOLUTION*** *Preventable fuel problems such as exhaustion. Structural failures where a broken connecting rod, crank, valve, or camshaft is present account for seventeen percent of engine failures occurs.*	***8.CHANNELS OF BEHAVIOR*** *Check the engine regularly and maintained properly. And also check the fuel and oil levels regularly in the aircraft engine.*