

Project Design Phase-I
Problem Solution -fit

Date	16/10/2022
Team ID	PNT2022TMID21701
Project Name	Predictive Analytics for Aircraft Engines
Maximum Marks	

Problem Solution -fit:

<u>1.CUSTOMER SEGMENT(S) (CS)</u> > Customers are businessmen, student, tourist, traveler and all the people traveling in flight.	<u>2.JOBS-TO-BE-DONE / PROBLEMS (J&P)</u> > Engine failure occurs when a turbine engine unexpectedly stops producing power due to malfunction. This led to a lot of customer dissatisfaction.	<u>3. TRIGGERS (TR)</u> > To accurately predict the failure of an engine and track the flight <u>4. EMOTIONS: BEFORE/AFTER (EM)</u> > The aircraft engine failure occurs; passengers often get annoyed and frustrated. They also might lose to reach on time to some important occasions.
<u>5. AVAILABLE SOLUTIONS (AS)</u> > The reliability analysis of aircraft engines is essential for ensuring the smooth functioning of each component of an aircraft engine.	<u>6.CUSTOMER CONSTRAINTS (CC)</u> > Customers require accurate and early predictions of the flight engine failure. And they also look for an alternate solution.	<u>7. BEHAVIOUR (BE)</u> > The purpose of this research is to develop methods that can be used to generate reliable and timely alerts
<u>8. CHANNELS OF BEHAVIOR (CH)</u> > Check the engine regularly and maintained properly. And check the fuel and oil levels regularly in the aircraft engine.	<u>9. PROBLEM ROOT CAUSE (RC)</u> > The root cause of the problem is unforeseen & unpredictable engine failure that cause cancellations and arrival, departure delays.	<u>10. YOUR SOLUTION (SL)</u> > 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.