## PROBLEM SOLUTION FIT

| TEAM ID       | PNT2022TMID35478  |
|---------------|---|
| PROJECT TITLE | Machine Learning-Based Predictive Analytics for Aircraft Engine |
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### **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.