Ideation Phase
FLIGHT DELAY PREDICTION USING MACHINE LEARNING

Date	17 SEPTEMBER 2022
Team ID	PNT2022TMID16605
Project Name	Developing a Flight Delay Prediction Model using Machine Learning
Maximum Marks	2 Marks

PROBLEM STATEMENT:

Flight Planning is one of the challenges in industrial world which faces many uncertain conditions. One such condition is delay occurrence, which stems from various factors and imposes considerable costs on airlines, operators, and travelers.Delays in departure can occur due to bad weather conditions, seasonal and holiday demands, airline policies, technical issue such as problems in airport facilities, luggage handling and mechanical apparatus, and accumulation of delays from preceding flights.Here in flight delay prediction system based on the weather parameters which can result in delays.The system considers the temperature, humidity, rain in mm, visibility and month number as important parameters for prediction of delay.

Major problem which causes delay in flights can be delay propagation, delay caused on the departure point or the root of the flight, and cancellation of flights.These problems cannot be eliminated forever, but a delay prediction tool will allow the operator and the administrators to take the concerned actions for smooth operation.Various methods that can be used to develop a system which predicts the delay in flights can be Machine Learning, Probabilistic models, Statistical analysis or Network Representations.

I am	Describe customer with 3-4 key characteristics - *who are they?*	Describe the customer and their attributes here
I'm trying to	List their outcome or "job" the care about - *what are they trying to achieve?*	List the thing they are trying to achieve here
but	Describe what problems or barriers stand in the way – *what bothers them most?*	Describe the problems or barriers that get in the way here
because	Enter the "root cause" of why the problem or barrier exists – *what needs to be solved?*	Describe the reason the problems or barriers exist
which makes me feel	Describe the emotions from the customer's point of view – *how does it impact them emotionally?*	Describe the emotions the result from experiencing the problems or barriers

I am	I'm trying to	But	Because	Which makes me feel
A Business Man	Fly to Delhi to attend a conference	Aircraft is delayed	Preparing the aircraft	Drive up the wall

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A Business Man	Fly to Delhi to attend a conference	Aircraft is delayed	Preparing the aircraft	Drive up the wall
PS-2	Doctor	Fly to London for an operation	Delay in reaching the destination	Adverse weather condition	Anxious
PS-3	Singer	Fly to Amsterdam for a concert	Delay in landing	Aircraft traffic control restrictions	Dejected