Project Design Phase-I

Problem Solution Fit

Date	15 October 2022
Team ID	PNT2022TMID46686
Project Name	Developing a Flight Delay Prediction Model Using Machine Learning

1. CUSTOMER SEGMENT

Business peoples and regular flight users

6. CUSTOMER CONSTRAINTS

Lack of transparency, no user-friendly models to work with

5. AVAILABLE SOLUTIONS

Weather forecasting, creation of larger runways, effective air traffic control

2. JOBS-TO-BE-DONE/ PROBLEMS

Predicting the flight delay due to the various reasons that may cause it, Intimate the flight delay to the passengers, Provide alternate flights, if the delay is prolonged

9. PROBLEM ROOT / CAUSE

Adverse weather conditions, air traffic, bird strikes, less runways, waiting for connecting passengers and bags, flight malfunction

7. BEHAVIOUR

Choose the right airlines, Choose different modes of transport , Wait patiently in the waiting hall until further notification, Search online for alternate flights, Dissatisfied and frustrated

3. TRIGGERS

Seeing other airlines that give accurate departure and arrival time even with delay

4. EMOTIONS: before /after

Frustration -> Satisfaction

10. YOUR SOLUTION

By using machine learning algorithms we can try to predict if the flight will be delayed in many ways. If given the right set of input parameters (Flight no, departure and arrival time, origin and destination airport, scheduled arrival and departure time, etc,.), the ML algorithms can predict the delay with high accuracy

8. CHANNELS OF BEHAVIOUR

8.1 ONLINE

Check for reimbursements, Search for the right airlines, book alternate flights online, agree to a new connection, call the airline

8.2 OFFLINE

Don't plan activities on the day of arrival, schedule flights for the middle of the week, fly non-stop routes, avoid travelling during holidays