Project Design Phase-I
Problem - Solution Fit

Date	1 October 2022
Team ID	PNT2022TMID15779
Project Name	Developing a flight delay prediction model using Machine Learning
Maximum Marks	2 Marks

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

Who is your customer?

Airports, Airline agencies and Passengers

6. CUSTOMER CONSTRAINTS CC

What constraints prevent your customers from taking action or limit their choices of solutions?

1. Technical glitch-customer cannot do anything
2. Time Constraints
3. Money Constraints

AS

5. AVAILABLE SOLUTIONS

Which solutions are available to the customers when they face the problem

1. Arrange for another flight
2. Refund for their ticket
3. Information updates about airlines

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS J&P

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

1. Predict the Probability of delay of their flight
2. Announce lthem about the delay and provide updates
3. Arrangements for alternative Flight

9. PROBLEM ROOT CAUSE RC

What is the real reason that this problem exists?

What is the backstory behind the need to do this job?i.e. customers have to do it because of change of the regulations

1. Change in weather conditions
2. Technical problems in aircraft
3. Flight crew delay
4. Airplane Equipement issuses
5. Connecting Passengers

7. BEHAVIOUR BE

What does your customer do to address the problem and get the job done?

1. Discuss with other passengers
2. Agitated and complain to the authorities concerned
3. Get accommodation from the airline service
4. Enquire for further updates

Focus on J&P, tap into BE, understand RC

3. TRIGGERS TR

What triggers customers to act?

1. Unable to attend important meeting on time
2. Long Waiting Hours
3. Frustated with the situation
4. Other airline passengers boarding

4. EMOTIONS: BEFORE / AFTER EM

How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

Frustated,Tensed ,Exhausted> Convinced , Pleased

10. YOUR SOLUTION SL

If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour .

Developing a flight delay prediction model using Machine Learning , We can predict flight arrival delays .We then use decision tree classifier to predict flight is delayed or not. Furthermore , we compare decision tree classifier with logistic regression and a simple neural network for various figures of merit

8. CHANNELS of BEHAVIOUR CH

8.1 ONLINE

What kind of actions do customers take online? Extract online channels from #7

1. Check weather updates
2. Search about history of airline service
3. Live Track the current status of the flight

8.2 OFFLINE

What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

1. Communicate with other passengers
2. Enquire Flight control assistance
3. Search for passenger service agents