Project Design Phase-I
Proposed Solution

Project Name	Developing a Flight Delay Prediction Model using Machine Learning
Team Leader	Krish Prasanna C R
Team Members	Dhanushwaran P S, Nishok Anand B, Logesh B

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	**Problem Statement (Problem to be solved)**	Developing A Flight Delay Prediction Model Using Machine Learning.
2.	**Idea / Solution description**	The main objective of the model is to predict flight delays accurately in order to optimize flight operations and minimize the aftereffects that caused by the delay. Using a machine learning model, we can predict flight arrival delays. The input to our algorithm is rows of feature vector like departure date, departure delay, distance between the two airports, scheduled arrival time etc. We then use decision tree classifier to predict if the flight arrival will be delayed or not. A flight is considered to be delayed when difference between scheduled and actual arrival times is greater than 10 minutes
3.	**Novelty / Uniqueness**	Delay Detection using simple decision tree algorithm

4.	**Social Impact / Customer Satisfaction**	By predicting the flight delay with more accuracy, the optimized results will help the passengers by alerting them, which will not lead them to miss the flight or helps them to prepare for the worst-case scenario. In the case of the medical field, if a doctor misses a flight, it can result in a life-or-death scenario. Our project helps them to stay aware of their flights.
5.	**Business Model (Revenue Model)**	Business to Consumer model The solution is a low-cost airline model planned to be created as an application with which the consumers can interact directly to know the details of their flight. It follows a non-monetary revenue model where the consumers aren't charged for what they get but are asked to provide their flight details and ratings which can be used to improve the model and shared with the airline in return for airline's flight data.
6.	**Scalability of the Solution**	The present solution is drafted with the aim of experimenting with airlines based out of the United States of America. If there is a possibility to acquire data of a broader region (say North America, other continents), then the solution can be developed to benefit a wider range of people.