Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	03 October 2022
Team ID	PNT2022TMID06371
Project Name	Project - Developing a Flight Delay Prediction Model using Machine Learning
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Flight data export process	A Process where web client passenger take flight data from web server to be analyzed in web client
FR-4	Flight Data Management	Web portal admin is able to add, edit, or erase passenger's data
FR-5	Data Management	Web Portal admin is able to add, edit, or erase department data
FR-6	Data Retention	• Proposed application system handle archival, retrieval, and retention of historical data. • Provide sufficient details concerning these.
FR-7	Compliance requirements	This paper proposes a model for predicting flight delay based on Decision Tree. Decision tree is one of the newest methods employed in solving problems with high level of complexity and massive amount of data.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Being able to predict the delay allows for better operational planning at the destination airport based on expected flight delay at origin.
NFR-2	**Security**	We aim to integrate multiple data source to predict the departure delay of scheduled flight.
NFR-3	**Reliability**	Considering the long short- term memory network is prone to over-fitting in limited data sets
NFR-4	**Performance**	● That has been performed based on statistics delay time has been considered to be reduced.

		● It has predicted the delay at destination based on factors that occur in the vicinity of arrival time at destination.
NFR-5	**Availability**	The web dashboard must be available to US and IND users 99.98 percent of the time every month during business hours EST & IST.
NFR-6	**Scalability**	● Flight delays a primary issue for airlines and travelers. ● The predicted arrival delay takes into consideration both flight information and weather conditions at origin airport and destination airport according to the flight timetable.