PROJECT DESIGN PHASE I
PROPOSED SOLUTION

Date	24 September 2022
Team ID	PNT2022TMID12583
Project Name	Exploratory Analysis of Rainfall Data in India for Agriculture

PROPOSED SOLUTION:

S.No:	Parameter	Description
1.	**PROBLEM STATEMENT**	Heavy rains can cause huge effects as leading to disasters like floods, Landslides etc and can have adverse effect effects on agriculture. This could severely affect countries like India wherein Agriculture serves as a predominant occupation. So, if we can predict the rainfall, we could help farmers plan accordingly thereby reducing the damage of crops.
2.	**IDEA / SOLUTION DESCRIPTION**	We propose a web application that takes in the weather conditions as input like the temperature, wind direction etc and using Machine Learning algorithms to forecast the rainfall for a given date thereby helping farmers to plan accordingly. This application gives you a precise information as the wind direction, the intensity of the rain expected like whether it is High, Low, Moderate etc. It also generates a report which provides guidance to famers as in how much water resources do they need to prepare, what crops could they cultivate etc
3.	**NOVELTY / UNIQUENESS**	• Providing a report on the rain forecast for a given time period and some recommended measures that can be taken • Display the annual and monthly rainfall received by states in Tamil Nadu as a pie chart • If the farmers are not sure about the input, they can simply specify the region
4.	**SOCIAL IMPACT / CUSTOMER SATISFACTION**	• Prevents crop damage due to heavy rainfall • Improves crop yield • Prior planning can be done using rain forecast
5.	**BUSINESS MODEL (REVENUE MODEL)**	• We can provide pop-up ads, overlay ads, and other advertising services from third-party advertisers • A pro version without any ads and with added benefits.
6.	**SCALABILITY OF SOLUTION**	• Inbuilt Machine Learning Model as a pickle file so training or testing isn't required and prediction doesn't take long time • Provide enhanced customer support .