

Project Design Phase-I
Proposed Solution
Template

Date	27 October 2022
Team ID	PNT2022TMID51008
Project Name	Exploratory Analysis of Rain Fall Data in India for Agriculture

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	In this paper we try to deal with the prediction of the rainfall which is a major aspect of human life. Climate is an important resource of human life. So, the Prediction should be accurate as much as possible. Heavy Rainfall may cause a huge threat to all living beings, especially in the field of agriculture. Predicting Rainfall is a major task in both summer and Rainy season.
2.	Idea / Solution description	Using Data Science, we could solve this and predict the Rainfall. Prediction of rainfall is a challenging task with a good accuracy rate. Making prediction on rainfall cannot be done by the traditional way, so scientists are using machine learning and deep learning to find out the pattern for rainfall prediction. So it can generate extra support to maintain the agriculture.
3.	Novelty / Uniqueness	We are not going to use any kind of equipment. Time of prediction is very less and easy with affordable cost.
4.	Social Impact / Customer Satisfaction	various types of healthy crops can be planted and also helps in producing healthy crops to the customers.
5.	Business Model (Revenue Model)	This comparative study is conducted concentrating on the following aspects: modelling inputs, Visualizing the data, modelling methods, and pre-processing techniques. The results provide a comparison.

		<p>of various evaluation metrics of these machine learning techniques and their reliability to predict rainfall by analyzing the weather data. We will be using classification algorithms such as Decision tree, Random forest, KNN, and xgboost</p> <p>This could cost really low as a person should develop knowledge in Data science and probably a gadget to develop this. However, deploying as an App attached with other facilities may cost an extra charge</p>
6.	Scalability of solution	<p>if we can predict the rainfall accurately and then we can help in improvement of crops growth</p>