Project Design Phase-I
Proposed Solution Template

Date	19 October 2022
Team ID	PNT2022TMID10661
Project Name	Exploratory Analysis of Rain Fall Data in India for Agriculture
Maximum Marks	2 Marks

Proposed Solution :

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	• We are trying to understand and analyse the behaviour of rainfall in India over the years, by months and different subdivisions. • Climate is an important aspect of human life. Therefore, the Prediction should accurate as much as possible. In this paper, we try to deal with the prediction of the rainfall which is also a major aspect of human life and which provide the major resource of human life, which is Fresh Water. • Now, climate change is the biggest issue all over the world. Peoples are working on to detect the patterns in climate change as it affects the economy in production to infrastructure.
2.	Idea / Solution description	• In rainfall also making prediction of rainfall is a challenging task with a good accuracy rate. Making prediction on rainfall cannot be done by the traditional way, so scientist is using machine learning and deep learning to find out the pattern for rainfall prediction. • Provides extra support to maintain the agriculture.
3.	Novelty / Uniqueness	• This application is useful for the beginners in agriculture. • Seed maturity selection features are available.
4.	Social Impact / Customer Satisfaction	• Different types of crops can be planted for good health. • Helps in producing healthy crops and good fields.
5.	Business Model (Revenue Model)	• The loss of production and economy for formers in agriculture, so we create a huge project. And increase their economy in agriculture • 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 of various evaluation metrics of these machine learning techniques and their reliability to predict rainfall by analysing the weather data. We will be using classification algorithms such as Decision tree, Random forest, KNN, and xgboost.
6.	Scalability of the Solution	• When we predict rainfall correctly, it helps growth of crop and yielding will be better. • Scalability of solution of our project is to make any farmers to deserve our rainfall data and we build an information office for non-improved village to get our data's