

**Project Design Phase-I**  
**Proposed Solution.**

Project Name	Exploratory Analysis of Rainfall Data in India for Agriculture.
Team ID	PNT2022TMID40045
Date	16 Oct 2022
Max Marks	2 Marks

S.NO.	Parameter	Description
1.	Problem Statement. (Problem to be solved)	<ul style="list-style-type: none"><li><input type="checkbox"/> India economy depends upon the agriculture, but the cultivation of land depends on rain fall rate. If the rain fall rate is sufficient then the cultivation will be sufficient.</li><li><input type="checkbox"/> In total India the 70% population depend on farming directly or indirectly. Agriculture productivity depends on number of factors that may be soil, water facilities, fertilizers, and good marketing conditions.</li><li><input type="checkbox"/> The production mainly depends on the water resources, the resources of water in India is main rainfall.</li></ul>
2.	Idea /Solution Description.	<ul style="list-style-type: none"><li><input type="checkbox"/> The system takes the user collected past data from the report of farmers and applying the data science linear regression and classification algorithm such as k-means to cluster the different group of the dataset.</li><li><input type="checkbox"/> These groups help in the prediction and improvement in near future crop yield.</li><li><input type="checkbox"/> To predict and analysis the crop prediction we used the dataset of rainfall in India.</li></ul>
3.	Novelty / Uniqueness.	<ul style="list-style-type: none"><li><input type="checkbox"/> Avoid decrease in crop productivity due to rainfall in India.</li></ul>
4.	Social Impact / Customer satisfaction.	<ul style="list-style-type: none"><li><input type="checkbox"/> This proposed system provides many facilities which helps the farmers to maintain the crop field without much loss.</li></ul>

5.	Business Model (Revenue Model).	<input type="checkbox"/> This prototype can be developed in minimum cost with high performance.
6.	Scalability of the solution	<input type="checkbox"/> This can be developed to a predict rainfall by using dataset and predicting the rainfall through dataset of rainfall in India and Analysing the rainfall in cloud and operation is performed using linear regression and classification , k - means clustering..