

PROJECT DESIGN PHASE

PROPOSED SOLUTION

Date	9th November 2023
Team ID	Team-592242
Project Name	Machine learning approach for predicting Rainfall

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	Predicting rainfall patterns is a complex task due to the intricate interplay of various meteorological factors. The challenge lies in developing a robust and accurate rainfall prediction model that can capture these intricate relationships and provide reliable forecasts for both short-term and long-term periods.
2.	Idea / Solution description	Gather Historical Meteorological Data, Ensure Data Quality, Feature Engineering, Data Normalization
3.	Novelty / Uniqueness	Implement explainability methods to gain insights into the decision-making process of the machine learning model, improving interpretability and trust in the predictions. Conduct real-world simulations or case studies to evaluate the effectiveness of the rainfall prediction model in practical applications, demonstrating its impact on decision-making and risk mitigation.
4.	Social Impact / Customer Satisfaction	Increased Crop Yields, Efficient Water Allocation, Reduced Crop Losses
5.	Business Model (Revenue Model)	Target market, Quality of predictions, Willingness to pay
6.	Scalability of the Solution	Model parallelism, Data parallelism, Model quantization