

PROBLEM STATEMENT

EXPLORATORY ANALYSIS OF RAINFALL DATA IN INDIA FOR AGRICULTURE

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This project aims to build a model that is able to predict the occurrence of rainfall.

- India being a predominantly agriculture based country. Main achievement of the agriculture is dependent on rainfall. Due to global warming and many other climate issues the weather conditions are changing for time being. Irregular heavy rains not only cause crop damage but may result in disasters.
- Rainfall has been a major concern these days. Weather conditions have been changing for time being. Rainfall forecasting is important otherwise, it may lead to many disasters.
- Irregular heavy rainfall may lead to the destruction of crops, heavy floods that can cause harm to human life.
- To prevent this we need a model to analyse and predict the rainfall by using rainfall data that has been accumulated over years with the help of Machine Learning.
- It is important to exactly determine the rainfall for effective use of water resources, crop productivity, and pre-planning of water structures. With the knowledge provided by this model we secure crops from several disasters that affects the agriculture.
- Exploratory analysis will concentrate in the following aspects: model inputs, data visualization, model parameters and the pre-processing techniques. Methods will be compared on various evaluation metrics and the dependability to predict the rainfall by analysing the data.
- Different types of parameters will be utilized to improve the performance of the model. The goal is to obtain high accuracy in forecasting the rainfall.