

# EXPLORATORY ANALYSIS OF RAINFALL DATA IN INDIA FOR AGRICULTURE



## **PRESENTED BY:**

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**Skills Required: Python,Python Web Frame Works,Python For Data Visualization,Data Preprocessing Techniques,Machine Learning,IBM Cloud,IBM Watson Studio,Python-Flask Project Description:**

- 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. It is important to exactly determine the rainfall for effective use of water resources, crop productivity, and pre-planning of water structures.
- This comparative study is conducted concentrating on the following aspects: modeling inputs, Visualizing the data, modeling 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 analyzing the weather data.
- We will be using classification algorithms such as Decision tree, Random forest, KNN, and xgboost. We will train and test the data with these algorithms. From this best model is selected and saved in pkl format. Once the model is saved, we integrate it with flask application and also deploy the model in IBM.

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