Rainfall Prediction in India

Problem Statement:

The project focuses on the prediction and forecast of India's rainfall patterns. Accurate rainfall forecasts are essential for many industries including agriculture, water resource management, and disaster preparedness. Understanding and predicting rainfall can help in crop planning for farmers, water resource management for reservoir managers, and emergency preparedness for expected flooding or droughts.

Source of the Dataset:

The dataset used for this project were obtained from Kaggle, a popular platform for data science competitions and datasets.

Brief Description of the Dataset:

The dataset provides historical information about rainfall in India. It has records spanning several years, and it includes data from two of the datasets. The dataset is used to build predictive models that can forecast future rainfall patterns based on past weather data. There are variations in each year as India has varied geography.

Description of Attributes/Variables/Columns of the Dataset:

1. Year: The year of the recorded weather data.
2. January: Rainfall(mm) in January.
3. February: Rainfall(mm) in February.
4. March: Rainfall(mm) in March.
5. April: Rainfall(mm) in April.
6. May: Rainfall(mm) in May.
7. June: Rainfall(mm) in June.
8. July: Rainfall(mm) in July.
10. August: Rainfall(mm) in August.
11. September: Rainfall(mm) in September.
12. October: Rainfall(mm) in October.
13. November: Rainfall(mm) in November.
14. December: Rainfall(mm) in December.
15. Annual: Total Rainfall(mm) in a year.
16. Jan-Feb: Total Rainfall(mm) in first season.
16. Mar-May: Total Rainfall(mm) in second season.
17. Jun-Sep: Total Rainfall(mm) in third season.
18. Oct-Dec: Total Rainfall(mm) in fourth season.