# **Weather Classification Documentation**

This project builds a machine learning model to classify weather conditions using weather-related features. The model is trained using a Random Forest Classifier.

**DataSet:**

Weather Type classification data is used from kaggle which includes features like:

Where **Weather Type** is the target variable.

**Exploratory Data Analysis(EDA):**

After loading the dataset I have separated the categorical and numerical columns to better understand the data and check whether there is any null value.

Feature Selection: Select the feature **Weather Type** to train the model on.

**Model Training:**

A Random Forest Classifier was applied to classify the weather type. This algorithm is chosen because it is a powerful machine learning method suitable for various classification tasks. The model achieved an accuracy of **91.5%**.

**Conclusion:**

The Random Forest Classifier effectively classifies weather conditions with high accuracy, making it a reliable choice for weather classification tasks.