**Assignment : Interactive Dashboard – Daily Weather Data Analysis**

**Objective:**

Develop an interactive Streamlit dashboard to analyze daily weather data and explore relationships between various meteorological parameters. The goal is to gain insights into weather patterns and apply basic predictive analytics.

**Dataset:**<https://www.kaggle.com/datasets/selfishgene/historical-hourly-weather-data>**Problem Statement:**

You are provided with a dataset containing historical hourly weather data for multiple cities. The dataset includes variables such as temperature, humidity, wind speed, and rainfall. Your task is to create an interactive data analytics dashboard in Streamlit that fulfills the following requirements:

1. **Temperature Trend Analysis (Line Graph)**

o Display line graphs to show temperature trends over time (you may choose a specific city and date range).

1. **Humidity vs Temperature (Scatter Plot)**

o Create a scatter plot to visualize the relationship between humidity and temperature.

1. **Rainfall Distribution (Histogram)**

o Plot histograms to show the distribution of rainfall levels over time or by city.

1. **Temperature Prediction (Linear Regression)**

o Implement a linear regression model to predict temperature based on humidity.

Visualize both actual and predicted temperatures**.**