import pandas as pd

import matplotlib.pyplot as plt

import seaborn as sns

from sklearn.model\_selection import train\_test\_split

from sklearn.linear\_model import LinearRegression

from sklearn.metrics import mean\_absolute\_error, mean\_squared\_error

# Load the cleaned renewable energy dataset

df = pd.read\_csv("Cleaned\_Renewable\_Energy\_Production.csv")

print(df)

Output:-

| **No** | **Date** | **Region** | **Solar Energy (MW)** | **Wind Energy (MW)** | **Hydro Energy (MW)** | **Temperature (°C)** | **Wind Speed (m/s)** | **Rainfall (mm)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2025-03-03 | North | 119.0 | 262.0 | 359.0 | 18.69 | 3.41 | 13.79 |
| 2 | 2025-03-02 | North | 120.0 | 295.0 | 453.0 | 10.74 | 7.95 | 16.63 |
| 3 | 2025-03-01 | East | 67.0 | 224.0 | 343.0 | 16.31 | 5.28 | 49.06 |
| 4 | 2025-02-29 | West | 75.0 | 280.0 | 323.0 | 13.08 | 7.46 | 36.71 |
| 5 | 2025-02-28 | North | 70.0 | 160.0 | 322.0 | 16.81 | 6.58 | 24.43 |