Weather Data Analysis Dashboard using Power BI

DAX Power Pivot

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Curr_Temp_C = SUM('Current'[current.temp_c]) & " °C"

Curr_Temp_f = SUM('Current'[current.temp_f]) & " °F"

last_update = "Last Updated, " & FORMAT(FIRSTNONBLANK('Current'[current.last_updated],
""), "dd mmm")

For_Temp_C = AVERAGE(Forcast_Day[forecast.forecastday.day.avgtemp_c]) & " °C"

AQI_Status_Text =
   VAR AQI = ROUND(SELECTEDVALUE('Current'[current.air_quality.pm10]),0)
   RETURN SWITCH(
      TRUE(),
      AQI <= 50, "Good",
      AQI <= 100, "Moderate",
      AQI <= 150, "Unhealthy for Sensitive",
      AQI <= 200, "Unhealthy",
      AQI <= 300, "Very Unhealthy",
      "Hazardous"
   )

AQI_Color_PM10 =
   VAR AQI = ROUND(SELECTEDVALUE('Current'[current.air_quality.pm10]),0)
   RETURN SWITCH(
      TRUE(),
      AQI <= 50, "#43d946",   -- Good (Green)
      AQI <= 100, "#fff570",  -- Moderate (Yellow)
      AQI <= 150, "#ff9800",  -- Poor (Orange)
      AQI <= 200, "#d99343",  -- Unhealthy (Red)
      AQI <= 300, "#ff5b0f",  -- Severe (Purple)
      "#d95243"               -- Hazardous (Dark Maroon)
   )

AQI_Suggestion =
   VAR AQI = SELECTEDVALUE('Current'[current.air_quality.pm10])
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    RETURN SWITCH(
        TRUE(),
        AQI <= 50, "Air is clean and healthy",
        AQI <= 100, "Acceptable air quality, stay active",
        AQI <= 150, "Sensitive groups should reduce outdoor time",
        AQI <= 200, "Limit prolonged outdoor exertion",
        AQI <= 300, "Avoid outdoor activity if possible",
        "Stay indoors, wear mask if outside"
    )

Left_Rain_Chance = 100 - SUM(Forcast_Day[forecast.forecastday.day.daily_chance_of_rain])

avg_day_Temp_c = SUM(Forcast_Day[forecast.forecastday.day.avgtemp_c])

avg_hour_Temp_c = SUM(Forcast_Hour[forecast.forecastday.hour.temp_c])

PM10_Left = 300 - SUM('Current'[current.air_quality.pm10])

AQI_Color_CO =
    VAR AQI = ROUND(SELECTEDVALUE('Current'[current.air_quality.co]),0)
    RETURN SWITCH(
        TRUE(),
        AQI <= 50, "#43d946",
        AQI <= 100, "#fff570",
        AQI <= 150, "#ff9800",
        AQI <= 200, "#d99343",
        AQI <= 300, "#ff5b0f",
        "#d95243"
    )

AQI_Color_SO2 =
    VAR AQI = ROUND(SELECTEDVALUE('Current'[current.air_quality.so2]),0)
    RETURN SWITCH(
        TRUE(),
        AQI <= 50, "#43d946",
        AQI <= 100, "#fff570",
        AQI <= 150, "#ff9800",
        AQI <= 200, "#d99343",
        AQI <= 300, "#ff5b0f",
        "#d95243"
    )
```

```
AQI_Color_O3 =
   VAR AQI = ROUND(SELECTEDVALUE('Current'[current.air_quality.o3]),0)
   RETURN SWITCH(
      TRUE(),
      AQI <= 50, "#43d946",
      AQI <= 100, "#fff570",
      AQI <= 150, "#ff9800",
      AQI <= 200, "#d99343",
      AQI <= 300, "#ff5b0f",
      "#d95243"
   )

AQI_Color_NO2 =
   VAR AQI = ROUND(SELECTEDVALUE('Current'[current.air_quality.no2]),0)
   RETURN SWITCH(
      TRUE(),
      AQI <= 50, "#43d946",
      AQI <= 100, "#fff570",
      AQI <= 150, "#ff9800",
      AQI <= 200, "#d99343",
      AQI <= 300, "#ff5b0f",
      "#d95243"
   )

AQI_Color_PM2_5 =
   VAR AQI = ROUND(SELECTEDVALUE('Current'[current.air_quality.pm2_5]),0)
   RETURN SWITCH(
      TRUE(),
      AQI <= 50, "#43d946",
      AQI <= 100, "#fff570",
      AQI <= 150, "#ff9800",
      AQI <= 200, "#d99343",
      AQI <= 300, "#ff5b0f",
      "#d95243"
   )

Humidity = SUM('Current'[current.humidity]) & " %"

Wind_Speed = SUM('Current'[current.wind_kph]) & " Kph"
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```
Visibility = SUM('Current'[current.vis_km]) & " KM"

Pressure = SUM('Current'[current.pressure_mb]) & " mm"

UV_Index = SUM('Current'[current.uv])

Precipitation = SUM('Current'[current.precip_mm]) & " mm"
```