DAX Queries

AQI Status

What it does: Converts the selected PM10 value into an easy-to-read category like *Good / Moderate / Poor…*

Where it's used: Text label for the Air Quality gauge/status so users don't interpret raw numbers.

```
AQI Status =
VAR AQI =
    ROUND(
        VALUE(SELECTEDVALUE('Current'[current.air_quality.pm10])),
        0
    )
RETURN
    SWITCH(
        TRUE(),
        AQI <= 50,  "Good",
        AQI <= 100, "Moderate",
        AQI <= 150, "Poor",
        AQI <= 200, "Unhealthy",
        AQI <= 300, "Severe",
        "Hazardous"
```

CO Color

What it does: Returns a hex color code based on the selected CO level using thresholds.

Where it's used: Conditional formatting (colored indicator/dots/cards) so pollution severity is visible instantly.

```
CO Color =
VAR AQI =
    ROUND(
        SELECTEDVALUE('Current'[current.air_quality.co]),
        0
```

```
    )
RETURN
    SWITCH(
        TRUE(),
        AQI <= 50,  "#43d946",    -- Good (Green)
        AQI <= 100, "#fff570",    -- Moderate (Yellow)
        AQI <= 150, "#ff9800",    -- Poor (Orange)
        AQI <= 200, "#ff5b0f",    -- Unhealthy (Purple)
        AQI <= 300, "#d99343",    -- Severe (Red)
        "#d95243"               -- Hazardous (Dark Maroon)
    )
```

Curr_Temp_C

What it does: Displays the current temperature with the "°C" suffix.
Where it's used: Main city snapshot card (current weather temperature).

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

Forecast_Temp_C

What it does: Calculates the average daily forecast temperature and formats it with "°C".
Where it's used: Forecast visuals/cards to show a clean temperature value instead of raw decimals.

```
Forecast_Temp_C = AVERAGE('forecast_day'[forecast.forecastday.day.avgtemp_c]) &" °C"
```

Last_Updated_Date_Curr

What it does: Builds the "Last Updated, 07 Jan" style label from the current data timestamp.
Where it's used: Top-left city panel so the user knows data freshness.

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

left_value_pm10

What it does: Calculates the remaining portion of the gauge by subtracting PM10 from a max scale.
Where it's used: Semi-donut / radial gauge fill logic (PM10 value vs remaining).

```
left_value_pm10 = _Measures[max_value] - SUM('Current'[current.air_quality.pm10])
```

Left_value_Rain

What it does: Converts rain chance into the remaining percentage to complete a 0–100 bar.
Where it's used: Progress-style bar visuals where you need "filled vs unfilled" portions.

```
Left_value_Rain = 100 -
SUM(forecast_day[forecast.forecastday.day.daily_chance_of_rain])
```

max_value

What it does: Sets a fixed maximum scale (300) used as the top range for AQI/gauge calculations.
Where it's used: Consistent gauge scaling so visuals don't resize unpredictably.

```
max_value = 300
```

visibility_miles

What it does: Displays visibility with the "miles" suffix.
Where it's used: KPI card for visibility (bottom-left set of cards).

```
visibility_miles = SUM('Current'[current.vis_miles])&" miles"
```

wind_speed_mph

What it does: Displays wind speed with the “mph” suffix.
Where it’s used: KPI card for wind speed.

```
wind_speed_mph = SUM('Current'[current.wind_mph])&" mph"
```