



DataTale: Power BI Training & Consulting for Government

Get Weather API into Power BI

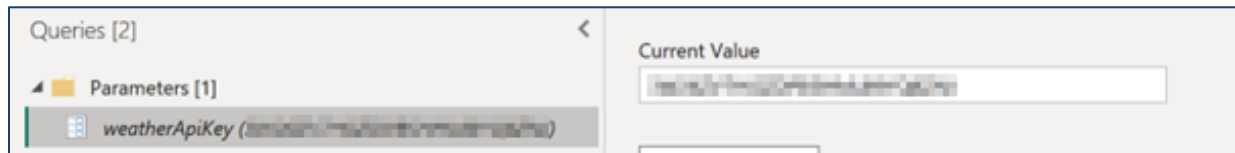
Developed by Warren Dean

0401 511 519
Warren.Dean@DataTale.com.au
www.DataTale.com.au

Get in touch for any of your Power BI development, training or roll out needs.

LOADING DATA

1. Register on weather.visualcrossing.com for the api key
2. Once api key is granted open up PowerQuery create a parameter named weatherApiKey paste the api key there



3. Create a new blank query in power query and paste the below string from the box
4. Rename the query to tbl_weather

```
let
    Source =
        Json.Document(Web.Contents("https://weather.visualcrossing.com/VisualCrossingWebServices/rest/services/timeline/Melbourne
        Victoria?unitGroup=metric&include=days&key=" & weatherApiKey & "&contentType=json")),

    #"Converted to Table" = Table.FromRecords({Source}),

    #"Expanded days" = Table.ExpandListColumn(#"Converted to Table", "days"),

    #"Expanded days1" = Table.ExpandRecordColumn(#"Expanded days", "days", {"datetime",
    "tempmax", "tempmin", "temp", "conditions", "description", "icon"}, {"days.datetime",
    "days.tempmax", "days.tempmin", "days.temp", "days.conditions", "days.description",
    "days.icon"}),

    #"Removed Other Columns" = Table.SelectColumns(#"Expanded days1",{"days.datetime",
    "address", "days.temp", "days.tempmin", "days.tempmax", "days.icon", "days.conditions",
    "days.description"}),

    #"Changed Type" = Table.TransformColumnTypes(#"Removed Other
    Columns",{{"days.datetime", type date}, {"address", type text}, {"days.icon", type text},
    {"days.conditions", type text}, {"days.description", type text}, {"days.temp", type number},
    {"days.tempmin", type number}, {"days.tempmax", type number}})

in
    #"Changed Type"
```

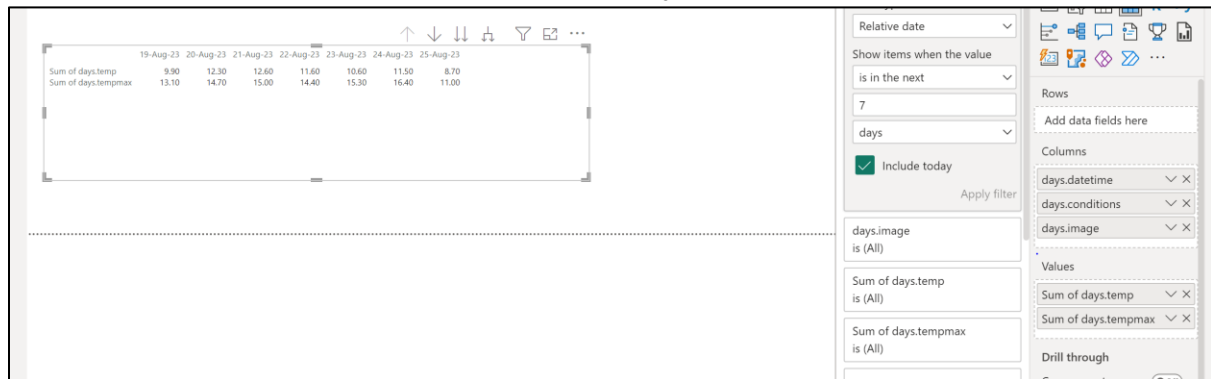
BRINGING IMAGE TO THE TABLE

1. Image location on github
<https://github.com/visualcrossing/WeatherIcons/tree/main/SVG/1st%20Set%20-%20Color>
2. Click on an image as an example
 - a. <https://github.com/visualcrossing/WeatherIcons/blob/main/SVG/1st%20Set%20-%20Color/partly-cloudy-day.svg>
 - b. Right Click on the image and open in a new tab
 - c. <https://raw.githubusercontent.com/visualcrossing/WeatherIcons/2de560da89d87de44e3ca2a6593a12c19c8346d3/SVG/1st%20Set%20-%20Color/partly-cloudy-day.svg>
 - d. We will use the above bolded section to map against our table
3. Go to the Data View and create a calculated Column called Image_icon
4. Image_icon =
`"https://raw.githubusercontent.com/visualcrossing/WeatherIcons/2de560da89d87de44e3ca2a6593a12c19c8346d3/SVG/1st%20Set%20-%20Color/" & tbl_weather[days.icon] & ".svg"`
5. Ensure that the data category type is Image URL

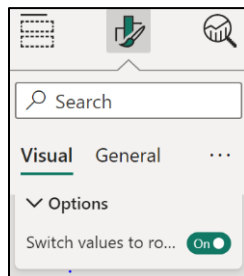
days.tempmax	days.icon	days.conditions	days.description
19.9	partly-cloudy-day	Partially cloudy	Partly cloudy throughout the day.
19.5	rain	Rain, Overcast	Cloudy skies throughout the day with late afternoon rain.
14.8	rain	Rain, Overcast	Cloudy skies throughout the day with a chance of rain throughout the day.
14.7	rain	Rain, Partially cloudy	Partly cloudy throughout the day with afternoon rain.

CREATE THE VISUAL








1. Use the Matrix Visual
2. Drag the columns into the below columns and rows
 - a. For columns
 - i. Date
 - ii. Condition
 - iii. Image_icon
 - b. For Values
 - i. Days.temp
 - ii. Days.tempmax
3. Add a filter for the date column to show the next 7 days



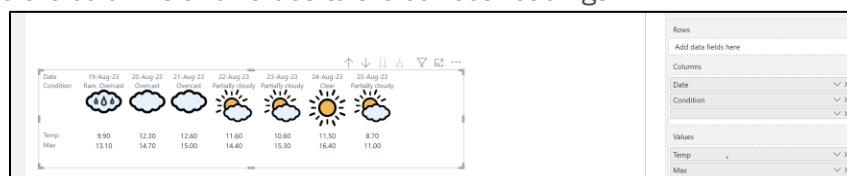
4. Ensure that switch values is selected on, in the Values section



5. Click on the drill down icon on the matrix to the lowest grain

days.datetime	19-Aug-23	20-Aug-23	21-Aug-23	22-Aug-23	23-Aug-23	24-Aug-23	25-Aug-23
days.conditions	Rain, Overcast	Overcast	Overcast	Partially cloudy	Partially cloudy	Clear	Partially cloudy
							
Sum of days.temp	9.90	12.30	12.60	11.60	10.60	11.50	8.70
Sum of days.tempmax	13.10	14.70	15.00	14.40	15.30	16.40	11.00

6. Rename the columns and values to the correct headings



- a. Change the alignment of the values
- b. Change the alignment of columns if wanted
- c. Remove totals



Warren Dean is a government Power BI specialist, skilled in understanding government reporting requirements, building strong Power BI user communities and report development.

Warren has 15 years' experience as a data analyst in government roles, previously lead the analytics function at the City of Casey. He also founded the Power BI for Government: Community of Practice and has spoken at multiple events and conferences across the world. He has trained over 1,500 people in Power BI.

He is a Microsoft Certified Trainer and Certified Power BI Developer, his company DataTale is a Microsoft Partner that provides Power BI training and consultation to government agencies across Australia.