

Power BI Lesson Learned al tempo del Coronavirus

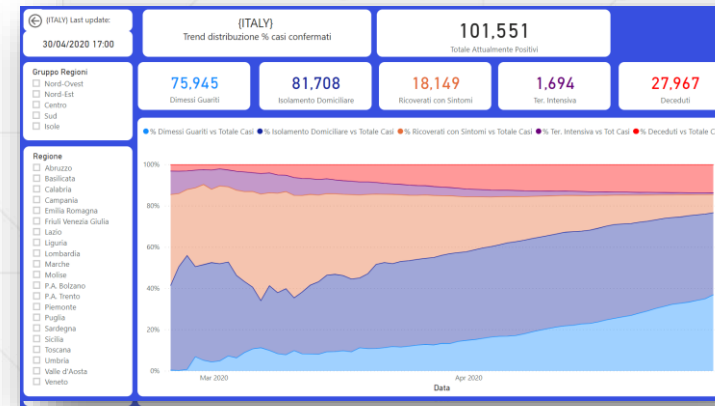
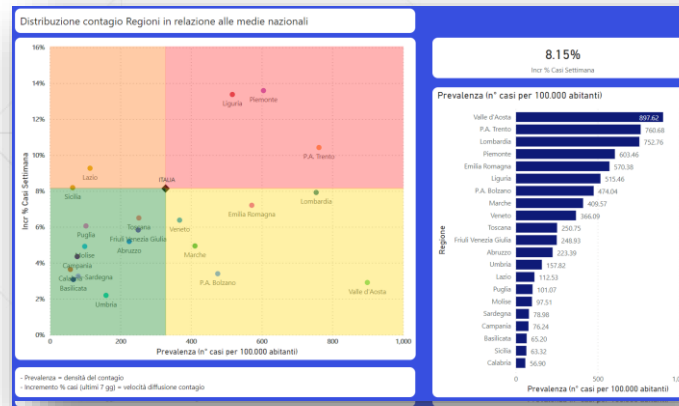
Andrea Benedetti

Sr. Cloud Architect | Data & AI Engineer

Microsoft

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Andrea Benedetti

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<https://twitter.com/anBenedetti>



<https://github.com/anbened>



<https://www.linkedin.com/in/abenedetti/>

#MSBizAppsSummit

- «A data culture for everyone»
 - Satya Nadella, 2014.04.15 ([qui](#))
- In less than 5 years Power BI
 - over 150,000 organizations
 - including 97% of Fortune 500 (!)
 - 2M developers use Power BI
 - over 45 PB of data to PBI every month
 - 40M reports & dashboards



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**1M+
Members**




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← → ↺ https://community.powerbi.com/t5/COVID-19-Data-Stories-Gallery/bd-p/pbi_covid19_datastories ☆ ☆1 📄 👤 ...

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USA Facts COVID-19 County level report with per capita detail

Hikmer 4




Covid 19 Dashboard - Global and US View

dan-dsecpa 3



Coronavirus Disease (COVID-19)

anbenedetti 3



Power BI Covid19 Model

SteveD2 1

<https://aka.ms/covidreport>

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Andrea Benedetti

@anbenedetti

Ultimo aggiornamento il 5 maggio 2020 alle 0:14

Data Culture e Coronavirus. Una proposta per un Data-Strategy manifesto

I dati, ce lo ripetiamo da giorni parlando delle fantomatiche 3-T, sono indispensabili per governare la fase 2. Ma cosa serve, davvero, per costruire un piano nazionale affidabile per tracciare e contenere il Covid19?

Per diversi motivi, **sto seguendo** la pandemia in corso praticamente da quando, a Codogno, si presentò il primo focolaio italiano. **Era il 21 febbraio 2020**. L'attenzione nacque principalmente dalla curiosità di capire cosa stesse succedendo e, grazie al prezioso lavoro della Protezione Civile, potendo disporre di dati giornalieri con diversi attributi d'interesse ho sviluppato un modello di analisi che mi permettesse da un lato di osservare il fenomeno, dall'altro di poter rispondere ad alcune domande che avevo in testa.



<https://startupitalia.eu/128952-20200504-data-culture-e-coronavirus-una-proposta-per-un-data-strategy-manifesto>

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**«SPIEGARE LE BATTUTE E' COME SEZIONARE
UNA RANA: A NESSUNO PIACE, E NEL
PROCESSO LA RANA MUORE»**

Agenda

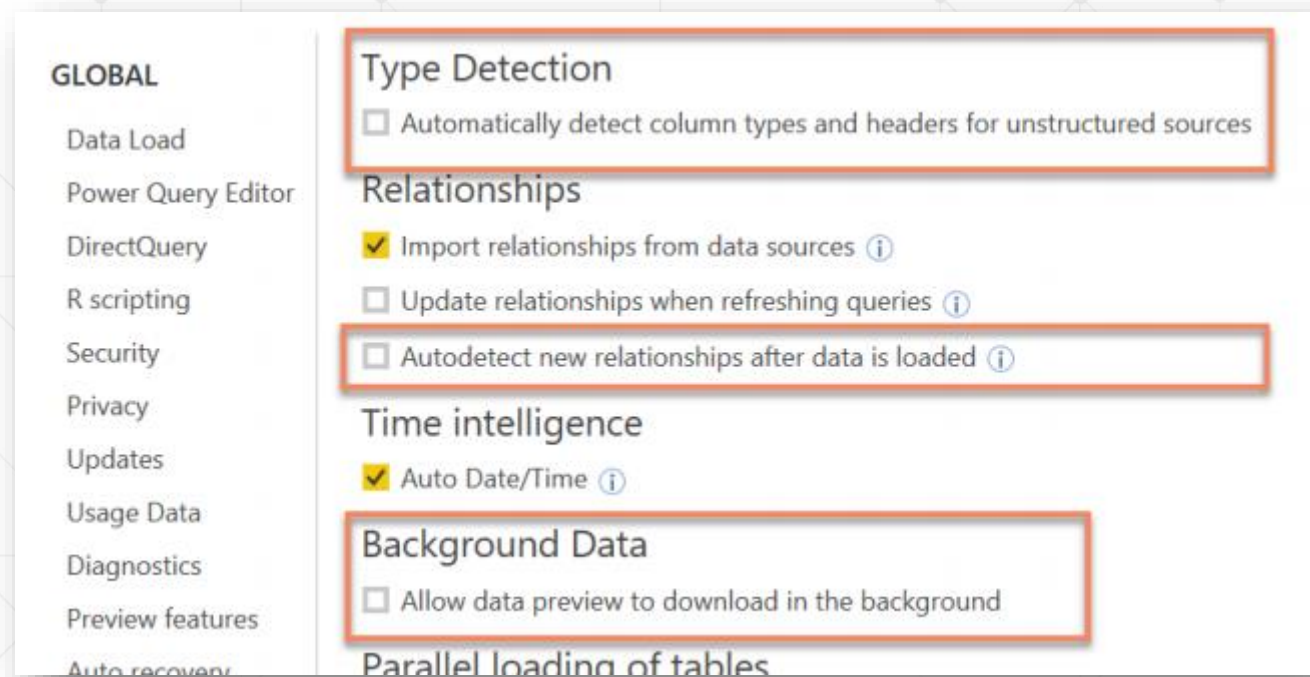
- Questo talk NON è:
 - Introduzione Power BI
 - Tips avanzati DAX/M
 - Deep-dive di qualcosa
- Questo talk è:
 - Condivisione di lesson learned di un progetto reale
 - Condivisione di alcune tecniche utili con Power BI
 - Condivisione di alcuni tips di produttività

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LE BASI

Attenzione impostazioni di default



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Date table



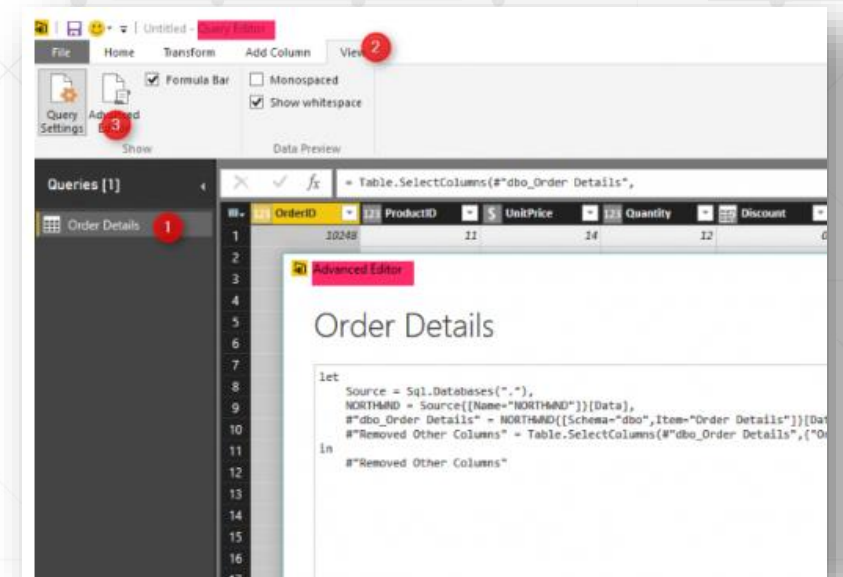
```
let
    P_Today = #date(2016,08,27),
    P_StartDate = #date(2013,1,1),
    P_EndDate = #date(Date.Year(P_Today),12,31),
    P_Culture = "en-US",
    P_Lang = "EN",
    P_FirstDayOfWeek = 1,
    DayCount = Duration.Days(Duration.From(P_EndDate - P_StartDate)) + 1,
    source = List.Dates(P_StartDate,DayCount,#duration(1,0,0,0)),
    TableFromList = Table.FromList(source, Splitter.SplitByNothing(),
    ChangedType = Table.TransformColumnTypes(TableFromList,{"Column1", type date}),
    RenamedColumns = Table.RenameColumns(ChangedType,{"Column1", "Date"}),
    InsertYear = Table.AddColumn(RenamedColumns, "Year", each Date.Year([Date])),
    InsertQuarter = Table.AddColumn(InsertYear, "Quarter", each Date.QuarterOfYear([Date])),
    InsertMonth = Table.AddColumn(InsertQuarter, "Month", each Date.Month([Date])),
    InsertDay = Table.AddColumn(InsertMonth, "Day", each Date.Day([Date])),
    InsertMonthName = Table.AddColumn(InsertDay, "Month (Name)", each Date.ToText([Date], "MMMM", P_Culture), type text),
    InsertShortMonthName = Table.AddColumn(InsertMonthName, "Month (Short Name)", each try(Text.Range([#"Month (Name)"],0,3)) otherwise [#"Month (Short Name)"], type text),
    InsertCalendarMonth = Table.AddColumn(InsertShortMonthName, "Month of Year", each [#"Month (Short Name)"] & " " & Number.ToText([Year])),
    InsertCalendarQtr = Table.AddColumn(InsertCalendarMonth, "Quarter of Year", each "Q" & Number.ToText([Quarter]) & " " & Number.ToText([Year])),
    InsertWeek = Table.AddColumn(InsertCalendarQtr, "Week", each Date.WeekOfYear([Date], P_FirstDayOfWeek)),
    InsertCalendarWeek = Table.AddColumn(InsertWeek, "Week of Year", each "W" & Number.ToText([Week]) & " " & Number.ToText([Year])),
    InsertDayWeek = Table.AddColumn(InsertCalendarWeek, "Week Day", each Date.DayOfWeek([Date], P_FirstDayOfWeek) + 1),
    InsertDayWeekName = Table.AddColumn(InsertDayWeek, "Week Day Name", each Date.DayOfWeekName([Date], P_Culture), type text)
```

- Utilizza una TUA calendar table (M o DAX)
 - Es: <https://www.sqlbi.com/articles/reference-date-table-in-dax-and-power-bi/>



Advanced editor

“Surprisingly, most people don't know about the Advanced Editor. It is because it's hidden away inside the Query Editor, which a lot of users don't utilize as much as they should.”



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Commentare non è il male

DataIndexed

Single line comment

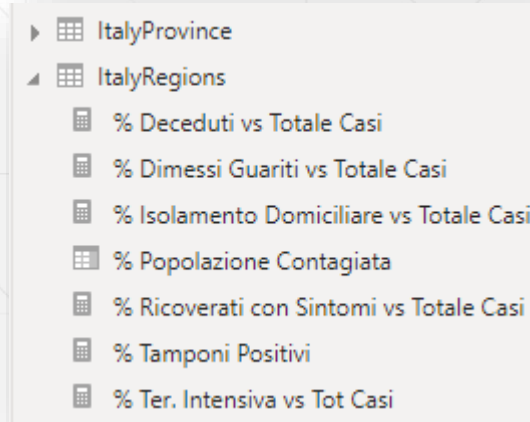
```
let
    //This is a single line comment
    Source = Excel.CurrentWorkbook(){[Name="Data"]}[Content],
    /* This is a multi
    line comment */
    #"Changed Type" = Table.TransformColumnTypes(Source,{{"Product", type text}, {"Order Date",
in
    #"Changed Type"
```

Multi line comment



Partire con il piede giusto

- Carica solo quello di cui hai effettivamente bisogno
- Pensa alla tua naming convention e sii coerente
- Entità != Tabelle



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Copiare dati da power bi

Tran Id	Date	Aff Payout Date	Region	Product ID
100J11	02 January 2011		New Delhi	BS-TEMP
102J11	03 January 2011		New Delhi	BMC-COURSE
108J11	07 January 2011		New Delhi	FFCHARTS-TEMP
115J11	14 January 2011		New Delhi	P&L-TEMP
118J11	17 January 2011		New Delhi	BS-TEMP
121J11	21 January 2011		New Delhi	P&L-TEMP
127J11	29 January 2011		New Delhi	BS-TEMP
138F11	17 February 2011		New Delhi	FFCHARTS-TEMP
139F11	18 February 2011		New Delhi	CFM-COURSE
143F11	20 February 2011		New Delhi	R&M-EBK
144F11	20 February 2011		New Delhi	CFM-COURSE
149M11	01 March 2011		New Delhi	CF-TEMP
150M11	06 March 2011		New Delhi	R&M-EBK
151M11	08 March 2011		New Delhi	R&M-EBK

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La data quality è **sempre** tua responsabilità

Data	Citta	Casi Confermati
01/05/2020	Brescia	12
01/05/2020	Bergamo	21
02/05/2020	Brescia	14
02/05/2020	Bergamo	21
02/05/2020	Brescia	14
03/05/2020	Brescia	16
03/05/2020	Bergamo	22

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La data quality è **sempre** tua responsabilità

Data	Citta	Casi Confermati
01/05/2020	Brescia	12
01/05/2020	Bergamo	21
02/05/2020	Brescia	14
02/05/2020	Bergamo	21
02/05/2020	Brescia	14
03/05/2020	Brescia	16
03/05/2020	Bergamo	22



1 COUNTIF for Duplicate Rows =
2 COUNTROWS(
3 FILTER(
4 ALL(ConfermatiCitta);
5 EARLIER(ConfermatiCitta[Data]) = ConfermatiCitta[Data] && EARLIER(ConfermatiCitta[Citta]) = ConfermatiCitta[Citta]
6)
7)

Data	Citta	Casi Confermati	COUNTIF for Duplicate Rows
venerdì 1 maggio 2020	Brescia	12	1
venerdì 1 maggio 2020	Bergamo	21	1
sabato 2 maggio 2020	Brescia	14	2
sabato 2 maggio 2020	Bergamo	21	1
sabato 2 maggio 2020	Brescia	14	2
domenica 3 maggio 2020	Brescia	16	1
domenica 3 maggio 2020	Bergamo	22	1

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La data quality è **sempre** tua responsabilità... a volte è un sogno



DATASOURCE & SIMILARI

Matrici sorgenti: attenzione num colonne

267 lines (267 sloc) | 85.5 KB

Raw Blame History

Search this file...

1	Province/State	Country/Region	Lat	Long	1/22/20	1/23/20	1/24/20	1/25/20	1/26/20	1/27/20
2		Afghanistan	33.0	65.0	0	0	0	0	0	0
3		Albania	41.1533	20.1683	0	0	0	0	0	0
4		Algeria	28.0339	1.6596	0	0	0	0	0	0
5		Andorra	42.5063	1.5218	0	0	0	0	0	0

```
1 let
2 ... Source = Csv.Document(Web.Contents("https://raw.githubusercontent.com/CSSEGISandData/COVID-19/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_confirmed_global.csv"),[Delimiter=";", Columns=104, Encoding=65001, QuoteStyle=QuoteStyleNone])
3 ... #"Changed Type" = Table.TransformColumnTypes(Source,{{"Column1", type text}, {"Column2", type text}, {"Column3", type text}, {"Column4", type text}, {"Column5", type text}, {"Column6", type text}, {"Column7", type text}, {"Column8", type text}})
4 in
5 ... #"Changed Type"
```

```
1 let
2 ... Source = Csv.Document(Web.Contents("https://raw.githubusercontent.com/CSSEGISandData/COVID-19/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_confirmed_global.csv"),[Delimiter=";", Encoding=65001, QuoteStyle=QuoteStyleNone])
3 ... #"Filtered Rows" = Table.SelectRows(Source, each true),
4 ... #"Changed Type" = Table.TransformColumnTypes(#"Filtered Rows",{{"Column1", type text}, {"Column2", type text}, {"Column3", type text}, {"Column4", type text}, {"Column5", type text}, {"Column6", type text}, {"Column7", type text}, {"Column8", type text}}),
5 ... #"Promoted Headers" = Table.PromoteHeaders(#"Changed Type", [PromoteAllScalars=true]),
6 ... #"Changed Type1" = Table.TransformColumnTypes(#"Promoted Headers",{{"Province/State", type text}, {"Country/Region", type text}, {"Lat", type text}, {"Long", type text}, {"1/22/20", Int64.Type}, {"1/23/20", Int64.Type}, {"1/24/20", Int64.Type}}),
7 ... #"Unpivoted Other Columns" = Table.UnpivotOtherColumns(#"Changed Type1", {"Long", "Lat", "Country/Region", "Province/State"}, "Attribute", "Value")
```

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Abbiamo il file? Che tipo di file?

Download today's data on the geographic distribution of COVID-19 cases worldwide

Table

7 May 2020



The downloadable data file is updated daily and contains the latest available public data on COVID-19. Each row/entry contains the number of new cases reported per day and per country. You may use the data in line with ECDC's copyright policy.

Download



Download today's data on the geographic distribution of COVID-19 cases worldwide as of 7 May 2020 - EN - [XLSX-711.59 KB]

Download today's data on the geographic distribution of COVID-19 cases worldwide - EN - [XLSX-711.59 KB]

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let

```
//provo a scaricare file XSL del giorno corrente
ewb0_xls_dataOdierna = try Excel.Workbook(Web.Contents("https://www.ecdc.europa.eu/sites/default/
Date.ToText(Date.From(Date.AddDays(DateTime.LocalNow(),0)), "YYYY-MM-DD") & ".xls"), nul

//provo a scaricare file XSLX del giorno corrente
ewb1_xlsx_dataOdierna = try Excel.Workbook(Web.Contents("https://www.ecdc.europa.eu/sites/default/
Date.ToText(Date.From(Date.AddDays(DateTime.LocalNow(),0)), "YYYY-MM-DD") & ".xlsx"), nu

//provo a scaricare file XSL del giorno corrente -1
ewb2_xls_ieri = try Excel.Workbook(Web.Contents("https://www.ecdc.europa.eu/sites/default/files,
Date.ToText(Date.From(Date.AddDays(DateTime.LocalNow(),-1)), "YYYY-MM-DD") & ".xls"), nu

//provo a scaricare file XSLX del giorno corrente -1
ewb3_xlsx_ieri = try Excel.Workbook(Web.Contents("https://www.ecdc.europa.eu/sites/default/file:
Date.ToText(Date.From(Date.AddDays(DateTime.LocalNow(),-1)), "YYYY-MM-DD") & ".xlsx"), ni

//verifico cosa è andato in errore per prendere l'oggetto file corretto
oggettoExcel = if ( ewb0_xls_dataOdierna[HasError] ) then
    if (ewb1_xlsx_dataOdierna[HasError] ) then
        if (ewb2_xls_ieri[HasError] ) then
            if (ewb3_xlsx_ieri[HasError] ) then
                ""
            else
                Excel.Workbook(Web.Contents("https://www.ecdc.europa.eu/sites/default/files,
Date.ToText(Date.From(Date.AddDays(DateTime.LocalNow(),-1)), "YYYY-MM-DD"

        else
            Excel.Workbook(Web.Contents("https://www.ecdc.europa.eu/sites/default/files/docum
Date.ToText(Date.From(Date.AddDays(DateTime.LocalNow(),-1)), "YYYY-MM-DD") & ".x:

    else
        Excel.Workbook(Web.Contents("https://www.ecdc.europa.eu/sites/default/files/documen
Date.ToText(Date.From(Date.AddDays(DateTime.LocalNow(),0)), "YYYY-MM-DD") & ".xl:

    else
        Excel.Workbook(Web.Contents("https://www.ecdc.europa.eu/sites/default/files/documents/C
Date.ToText(Date.From(Date.AddDays(DateTime.LocalNow(),0)), "YYYY-MM-DD") & ".xls"),

// prelevo worksheet corretto
CSV_4_COMS1 = oggettoExcel[Name="COVID-19-geographic-disbtributi"]][Data],
```

Static table 1/2

```
1 let
2     Query1 = #table(
3     type table
4     [
5     #"Gruppo Regioni"=text,
6     #"Regione"=text,
7     #"N"=Int64.Type
8     ],
9     {
10     {"Nord-Ovest", "Piemonte", 1},
11     {"Nord-Ovest", "Valle d'Aosta", 1},
12     {"Nord-Ovest", "Liguria", 1},
13     {"Nord-Ovest", "Lombardia", 1},
14     {"Nord-Est", "P.A. Trento", 2},
15     {"Nord-Est", "P.A. Bolzano", 2},
16     {"Nord-Est", "Veneto", 2},
17     {"Nord-Est", "Friuli Venezia Giulia", 2},
18     {"Nord-Est", "Emilia Romagna", 2},
19     {"Centro", "Toscana", 3},
20     {"Centro", "Umbria", 3},
21     {"Centro", "Marche", 3},
22     {"Centro", "Lazio", 3},
23     {"Sud", "Abruzzo", 4},
24     {"Sud", "Molise", 4},
25     {"Sud", "Campania", 4},
26     {"Sud", "Puglia", 4},
27     {"Sud", "Basilicata", 4},
28     {"Sud", "Calabria", 4},
29     {"Isole", "Sicilia", 5},
30     {"Isole", "Sardegna", 5}
31     },
32     ),
33     #"Added Custom" = Table.AddColumn(Query1, "OrderBy", each Number.ToText([N]) & "_" & [Regione])
34 in
35     #"Added Custom"
```

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Static table 2/2

```
1 Segments_Datatable =  
2 DATATABLE (  
3     "Price Range", STRING,  
4     "Min Price", CURRENCY,  
5     "Max Price", CURRENCY,  
6     {  
7         { "Low", 0, 10 },  
8         { "Medium", 10, 100 },  
9         { "High", 100, 9999999 }  
10    }  
11 )
```

 COPY  DAX CONVENTIONS  CODE #2

FORMAT CODE WITH  **DAX**
FORMATTER

<https://www.sqlbi.com/articles/create-static-tables-in-dax-using-the-datatable-function/>

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Introduction to m in power bi

Introduction to M in Power BI



[Francesco
De Chirico](#)

Attachment(s)



[Introduction to M in Power BI.pdf](#)

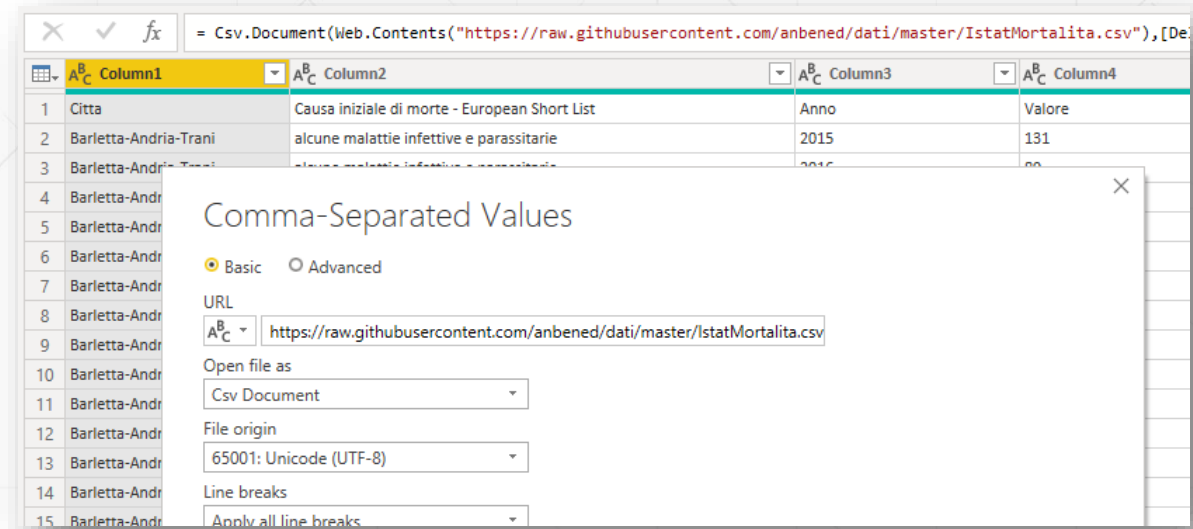
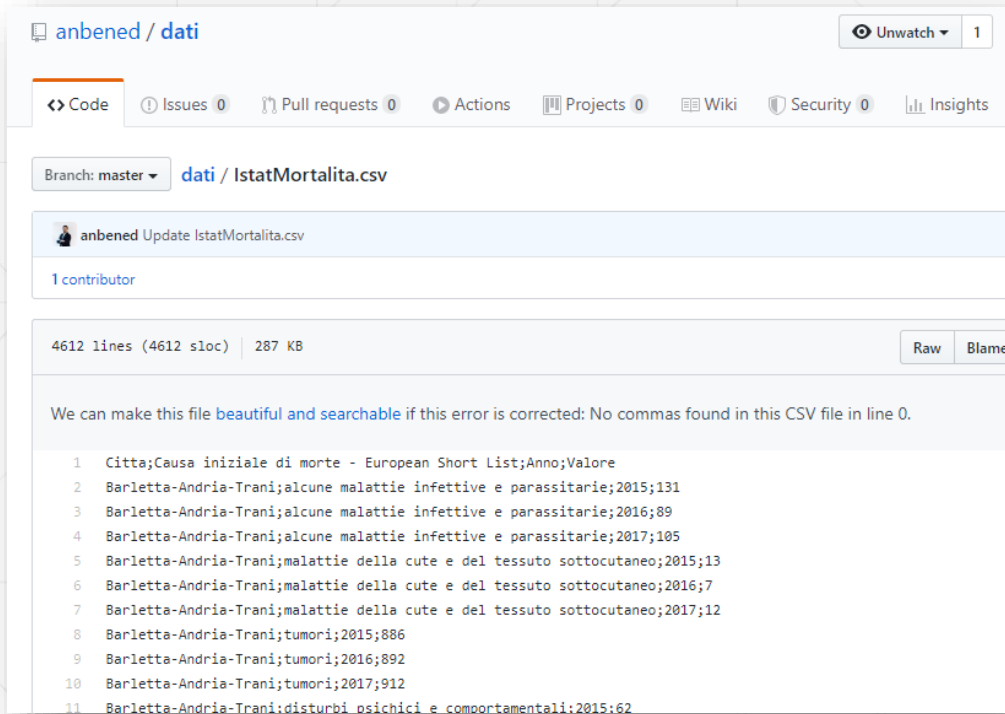
Uploaded - Apr 25, 2020

Download

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Github è tuo amico



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DATA MODELING

DAX Studio è tuo amico (sempre)

VertiPaq Analyzer Preview

Tables Columns Relationships Summary

Name	Cardinality	Table	Col Size	Data	Dictionary	Hier Size	Encoding	Data Type	RI Violations	User Hier Size	Rel Size	% Table	% DB	Segm
ItalyRegions	1.407	607.115	607.043	138...	315.539	153.280	Many	-	-	0	72	1,77%		
ItalyProvince	7.169	1.118.511	1.116....	160...	811.727	144.224	Many	-	-	0	2.288	3,26%		
TimeSeriesUSA	101.108	1.540.086	1.540....	939...	496.790	103.856	Many	-	-	0	0	4,49%		
UKDailyConfirmedCases	74	54.626	54.626	552	52.626	1.448	Many	-	-	0	0	0,16%		
UKTotalCases	1	2.200	2.200	104	1.680	416	VALUE	-	-	0	0	0,01%		
UKNHSEnglandRegionsCases	7	17.676	17.676	16	17.516	144	Many	-	-	0	0	0,05%		
UKUTLACases	149	24.284	24.284	352	22.148	1.784	Many	-	-	0	0	0,07%		
Scenario	2	17.290	17.290	8	17.202	80	Many	-	-	0	0	0,05%		
ItalyRegionsGroup	21	1.101.398	1.101....	64	1.100.798	536	Many	-	-	0	0	3,21%		
ItalyNationalTrend	67	51.056	51.056	3.176	41.120	6.760	Many	-	-	0	0	0,15%		
ItalyISTAT	41.310	318.076	318.068	165...	90.788	61.984	Many	-	-	0	8	0,93%		
ItalyISTATIta	3	2.131.696	2.131....	32	2.131.504	160	Many	-	-	0	0	6,21%		
ItalyISTATArea	15	3.197.592	3.197....	88	3.197.192	304	Many	-	-	0	8	9,32%		
ItalyISTATRegione	21	4.263.928	4.263....	144	4.263.096	680	Many	-	-	0	8	12,43%		
ItalyISTATCitta	321	4.268.352	4.268....	1.936	4.263.824	2.584	Many	-	-	0	8	12,44%		
ItalyLatLong	7.978	1.275.522	1.259....	63....	940.290	255.424	Many	-	1	0	15.968	3,72%		
ItalyCities	7.979	1.620.555	1.604....	118...	1.188.651	297.112	Many	-	-	0	15.968	4,72%		
TimeSeries	26.600	6.460.708	6.460....	434...	5.862.716	163.376	Many	-	-	0	192	18,83%		
time_series_covid19_deaths_global	26.600	135.488	135.488	41....	82.736	11.568	Many	-	-	0	0	0,39%		
AreaCountry	249	81.562	81.562	808	77.306	3.448	Many	-	1	0	0	0,24%		
time_series_covid19_recovered_global	25.200	161.923	161.923	44....	99.667	17.856	Many	-	-	0	0	0,47%		
IstatMortalita	1.595	2.254.264	2.254....	15....	2.215.952	22.336	Many	-	-	0	104	6,57%		
Citta	107	1.067.584	1.067....	96	1.066.592	896	Many	-	-	0	0	3,11%		
ItalyGruppoRegioneRegioneProvincia	107	75.796	75.796	336	73.956	1.504	Many	-	1	0	0	0,22%		
PostiTerapiaIntensiva	21	1.067.928	1.067....	280	1.066.744	904	Many	-	-	0	0	3,11%		
TimeSeriesCountry	18.700	1.400.980	1.400....	194...	1.135.924	70.704	Many	-	-	0	0	4,08%		



4a225522-64f9-4027-a869-1b38c88fb834

Total Size

32,73 Mb

Last Data Refresh

01/05/2020 11:32:02

Analysis Date

01/05/2020 13:34:14

Compatibility

1465

Tables

26

Columns

275

Server

localhost:52289

- Focus su colonne con alta cardinalità
- Rimuovi colonne inutili
 - (carica solo quanto utile)
- Split colonna per ridurre valori distinti
 - Datetime → date e time

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DAX: variables to improve formulas

- Improve performance
- Improve readability
- Simplify debugging
- Reduce complexity

```
QTY DIFFERENCE =  
VAR myindex = Sales[INDEX]  
VAR mycustomer = Sales[CUSTOMER ID]  
VAR previousindex =  
    CALCULATE (  
        MAX ( Sales[INDEX] ),  
        FILTER ( Sales, Sales[CUSTOMER ID] = mycustomer && Sales[INDEX] < myindex )  
    )  
VAR previousqty =  
    CALCULATE (  
        MAX ( Sales[QTY] ),  
        FILTER (  
            Sales,  
            Sales[INDEX] = previousindex  
            && Sales[CUSTOMER ID] = mycustomer  
        )  
    )  
RETURN  
    IF ( previousqty, Sales[QTY] - previousqty )
```

<https://docs.microsoft.com/en-us/power-bi/guidance/dax-variables>

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Previous Row

A _C data	A _C stato	A _C codice_regione	A _C denominazione_regione	A _C codice_provincia	A _C denominazione_provincia	A _C sigla_provincia	A _C lat	A _C long	A _C totale_casi
2020-02-29T17:00:00	ITA	08	Emilia-Romagna	038	Ferrara	FE	44.83599085	11.61868934	0
2020-02-29T17:00:00	ITA	08	Emilia-Romagna	040	Forlì-Cesena	FC	44.22268559	12.04068608	0
2020-02-29T17:00:00	ITA	08	Emilia-Romagna	036	Modena	MO	44.64600009	10.92615487	22
2020-02-29T17:00:00	ITA	08	Emilia-Romagna	034	Parma	PR	44.80107394	10.32834985	35
2020-02-29T17:00:00	ITA	08	Emilia-Romagna	033	Piacenza	PC	45.05193462	9.692632596	138
2020-02-29T17:00:00	ITA	08	Emilia-Romagna	039	Ravenna	RA	44.41722493	12.19913936	1
2020-02-29T17:00:00	ITA	08	Emilia-Romagna	035	Reggio nell'Emilia	RE	44.69735289	10.63007973	4

```
1 Casi Giorno-1 =
2   CALCULATE(
3     MAX(ItalyProvince[Casi Giorno]);
4     TOPN(1;
5       FILTER(
6         ALLSELECTED(ItalyProvince);
7         ItalyProvince[Data] < EARLIER(ItalyProvince[Data]) && ItalyProvince[Regione] = EARLIER(ItalyProvince[Regione]) && ItalyProvince[Provincia] = EARLIER(ItalyProvince[Provincia])
8       );
9     ItalyProvince[Data];
10    DESC
11  )
12
```

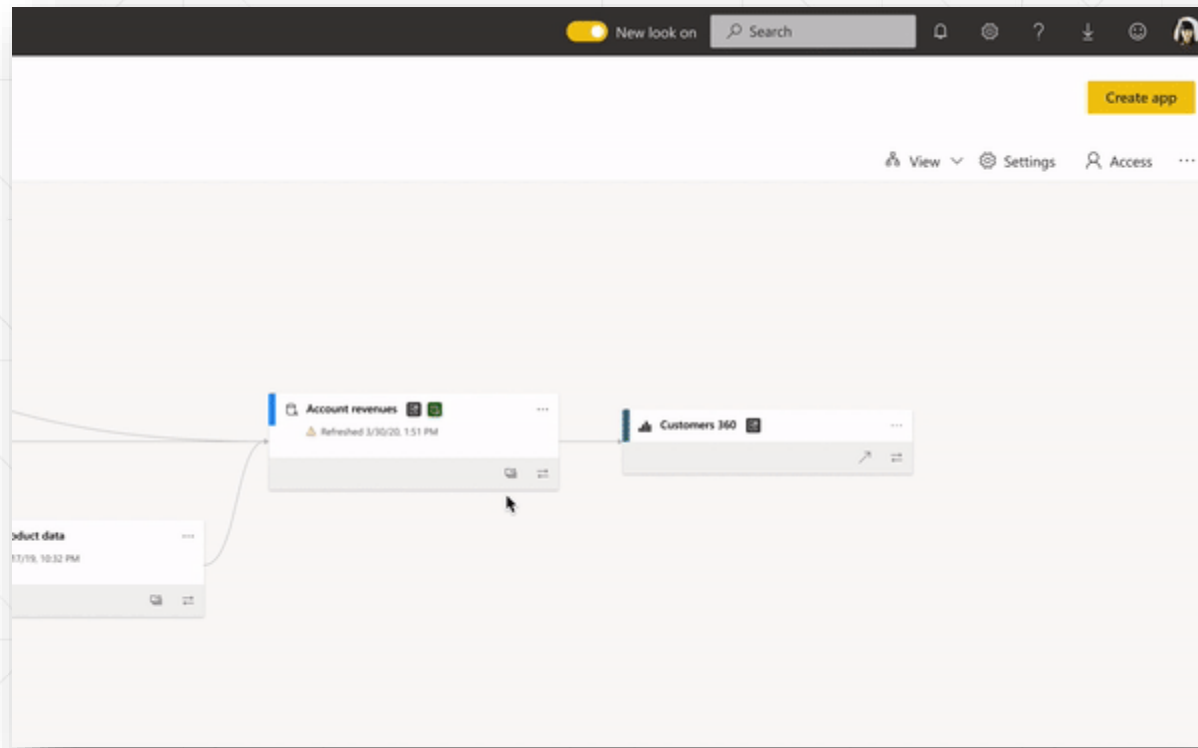
```
1 Casi Settimana -1 =
2   CALCULATE(
3     MAX('ItalyProvince'[Casi Totali]);
4     TOPN(1;
5       FILTER(
6         ALLSELECTED('ItalyProvince');
7         DATEADD('ItalyProvince'[data];7;DAY) = EARLIER('ItalyProvince'[data]) && 'ItalyProvince'[Provincia] = EARLIER('ItalyProvince'[Provincia])
8       );
9     'ItalyProvince'[data];
10    DESC
11  )
12
```

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TIPS & TRICKS

Power bi lineage view in GA



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Report Quickly Switch

>" in the bar at the bottom of the page
click on the page numbers at the bottom of the page
CTRL key for each mouse click

for Systems Science and Engineering
vile - Presidenza del Consiglio
ngland (Total UK cases COVID-19)
vw.lispa.it/wps/portal/LISPA/Health
ica https://www.istat.it/it/nuovi
b.com/nytimes/covid-19-data

ublished suite of methods for time series analysis
Nonetheless, this is a quick and easy way to get the data

- 21. Italy Cities
- 22. Italy Scatter Chart
- 23. Italy Timeline
- 24. Italy Serious Cases
- 25. Italy National Trend
- 26. Italy Trend
- 27. Italy Trend Distribuzione %
- 28. Italy Mortality
- 29. Italy Health Dynamics
- 30. Italy Percentage Increase

27. Italy Trend Distribuzione %

< 1 di 47 >



UPDATES

Istruzioni ITA

- Sfogliare i report con
- Selezionare direttamente
- Fare più sp

ENG

reports with
- Selezionare direttamente
- Fare più sp

- 27. Italy Trend Distribuzione %
- 28. Italy Mortality
- 29. Italy Health Dynamics
- 30. Italy Percentage Increase
- 31. Italy Percentage Increase Detail
- 32. Italy ICU
- 33. Italy Regions Group Trend
- 34. Italy Rate of Growth
- 35. Italy Rate of New Cases
- 36. Italy Population
- 37. Italy Map
- 38. Italy Logarithmic
- 39. Italy Lombardia
- 40. Italy Lombardia % Popolazione
- 41. WW Trajectory
- 42. Italy Trajectory by Regions
- 43. Italy Trajectory by Province

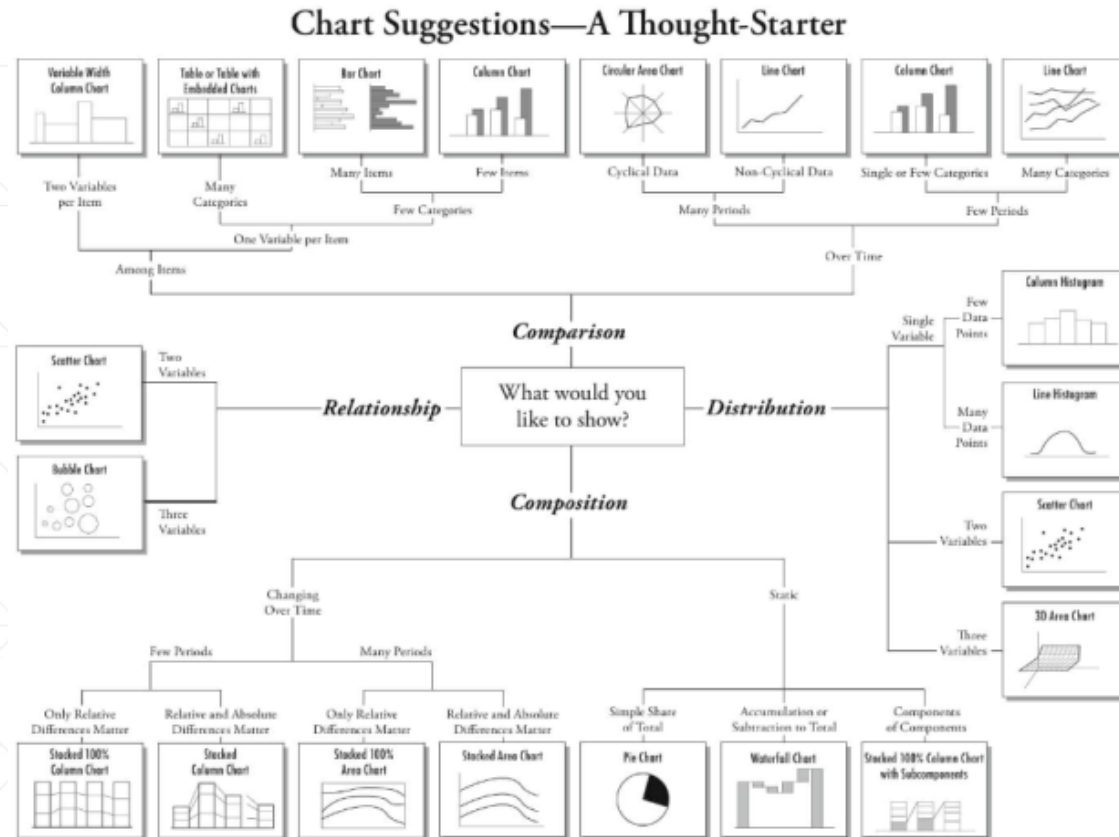
34. Italy Rate of Growth

PAGE 1 OF 48

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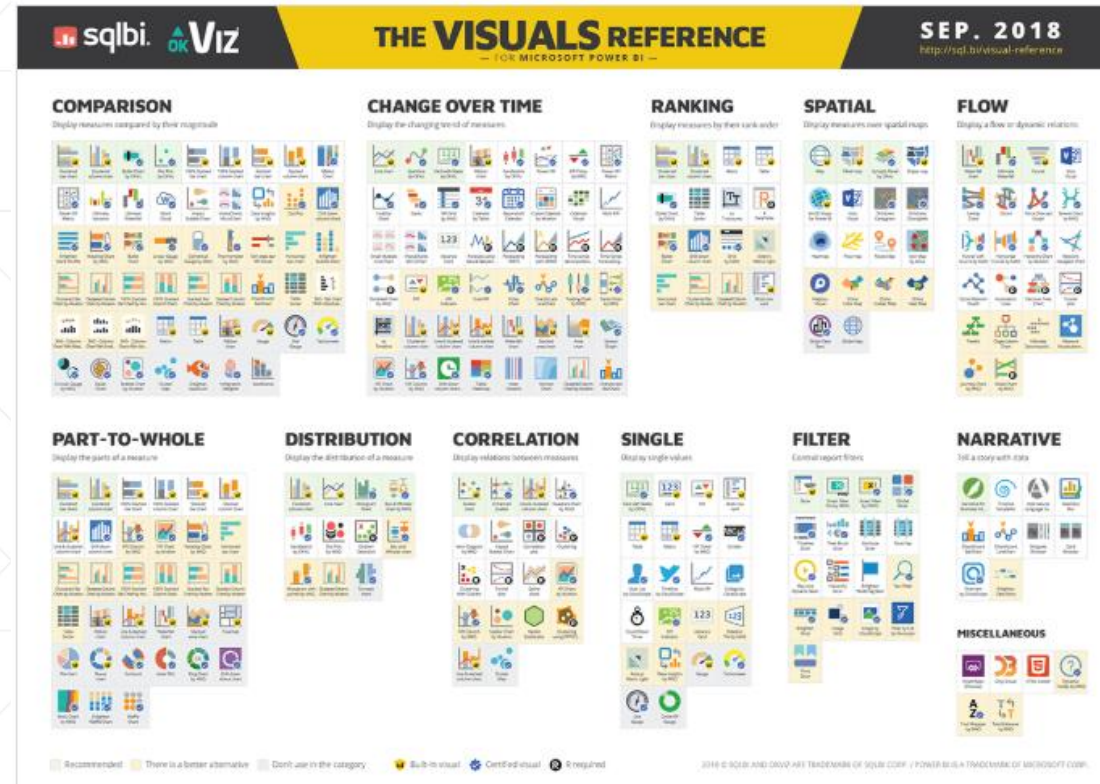
"With enough data, the numbers speak for themselves"



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"With enough data, the numbers speak for themselves"



<https://www.sqlbi.com/ref/power-bi-visuals-reference/>

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template

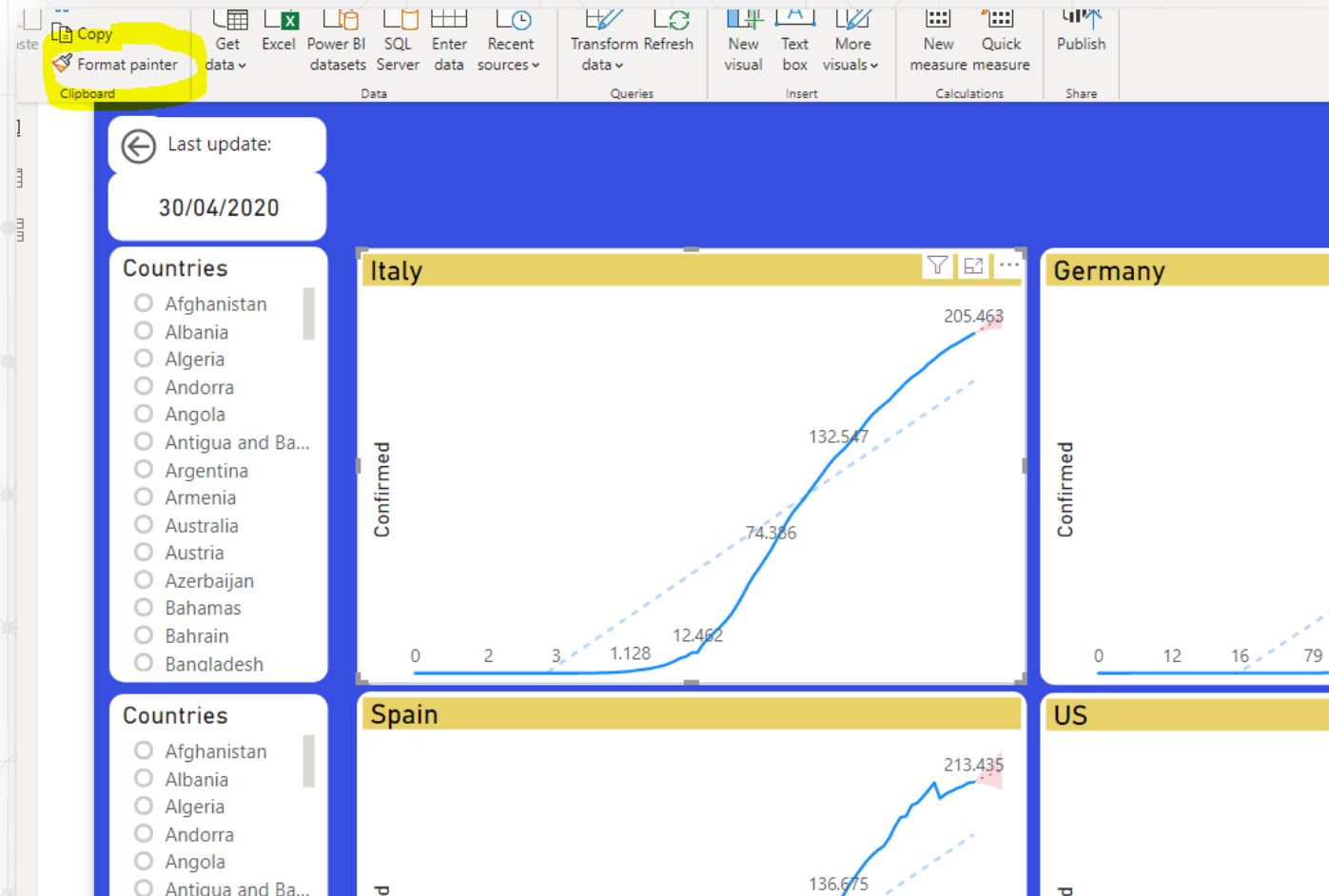
```
Theme.json - Notepad
File Edit Format View Help
{"name": "Custom", "visualStyles": {"*": {"*": {"border": [{"color": {"solid": {"color": "#FFFFFF"}}, {"show": true, "radius": 10}]}}, "page": {"*": {"background": [{"color": {"solid": {"color": "#374FE0"}}, {"transparency": 0}]}}}}}
```

- September 2017 update for PBI desktop: Report Themes.
- Game changer for advanced Power BI user
- You must know how to write it all in JSON → <https://powerbi.tips/tools/report-theme-generator-v3/>



Design Tips

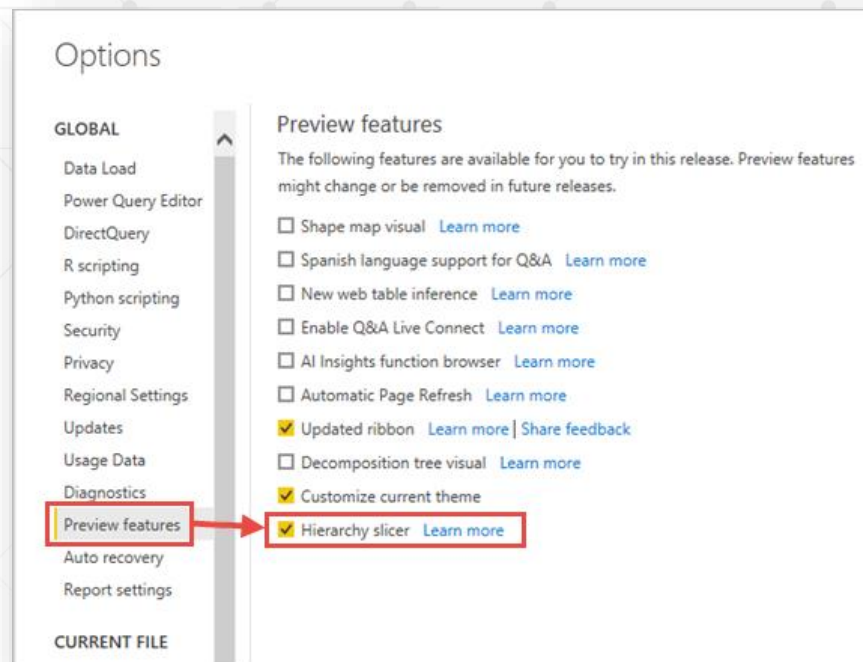
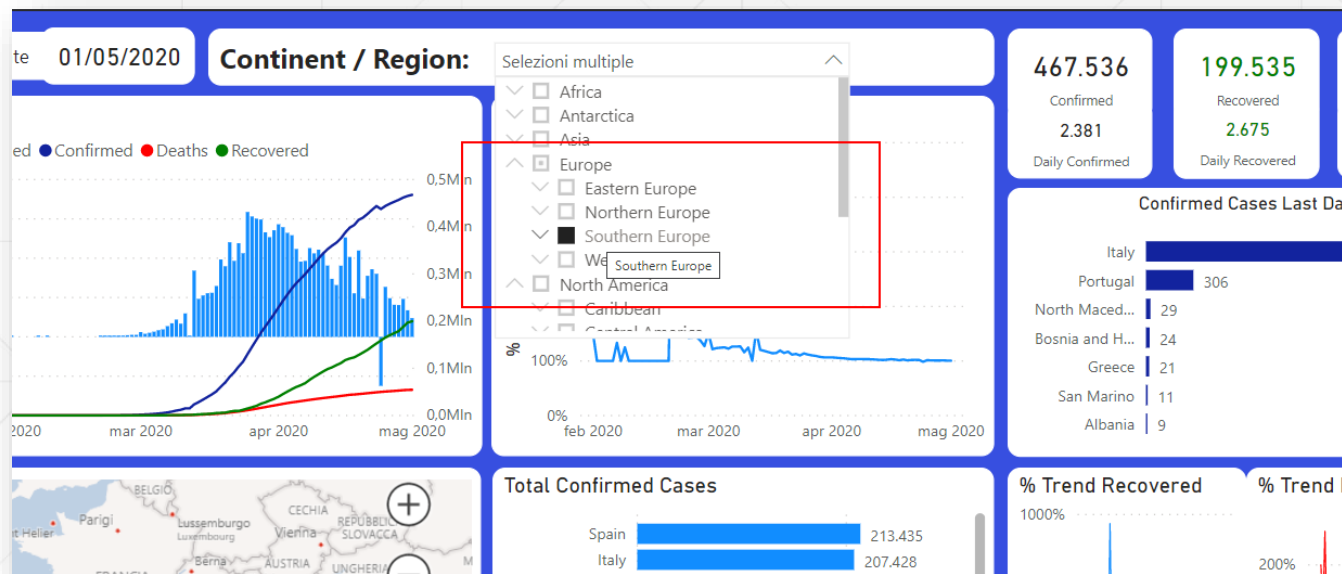
Format painter: click a visual, click format painter, then click on a same type of visualization to switch to former visual's format



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Preview features



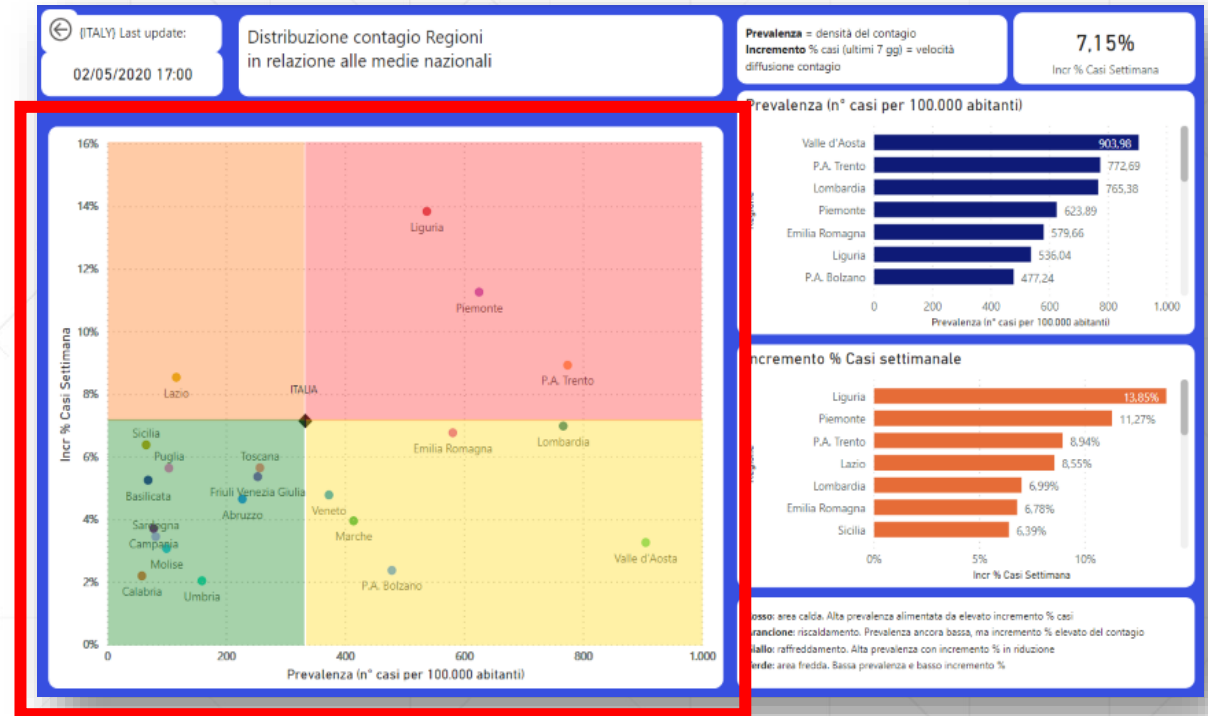
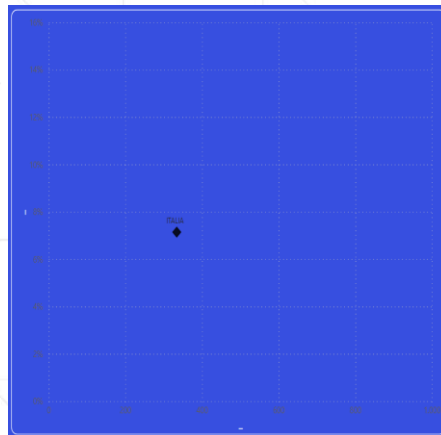
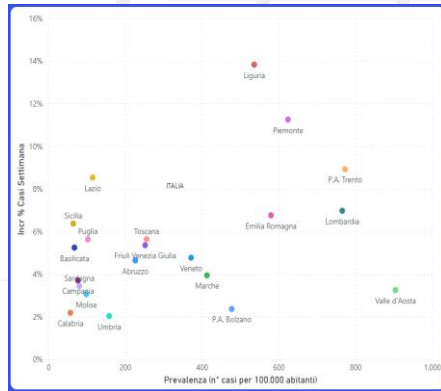
- Hierarchy slicer

- <https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-slicer-hierarchy-multiple-fields>

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Usate la fantasia...




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... e power bi ideas

- <https://ideas.powerbi.com/>

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 Microsoft | Power BI

Power BI Ideas

How can we improve Power BI?

Enter your idea

Hot ideas

Top

New

Category

Status

My feedback


4,600 votes

Vote

Option to use either light or dark interface.

New Desktop app update installed an almost white user interface. There is zero contrast which is not good for the eyes. I see where some people have requested a light interface so incorporate an option to select either light or dark theme like in the Office apps.

641 comments · Desktop · Flag idea as inappropriate...

 **BACKLOG** · (Program Manager, Power BI, Microsoft Power BI) responded

This is on our roadmap but we don't have a specific timeline to share at this point. We'll update this when we have more details!

282 votes

Vote

Improve performance of MDX queries using Analyze in Excel

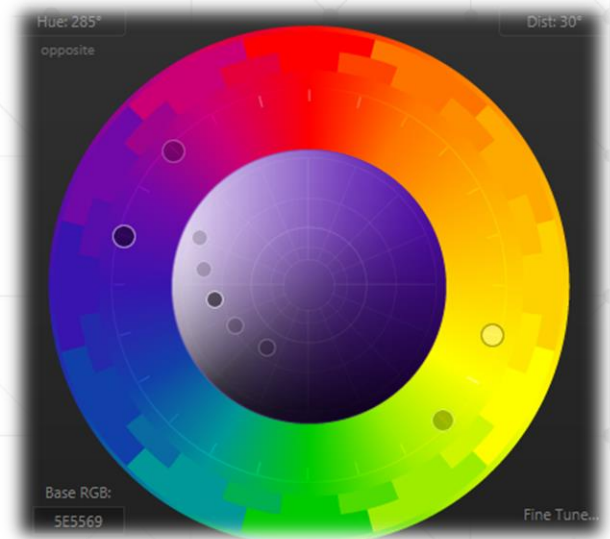
When you use Analyze in Excel, MDX queries are sent to the Power BI dataset. If you have a PivotTable with 10 measures, the performance is usually slower compared to a similar Matrix in Power BI with the same content. Power BI generates DAX queries.

One of the reasons why this difference exists is that the DAX query is optimized using a process called "fusion"



Disegno e colori

- Color Codes (PBI uses Hex#)
 - <http://www.december.com/html/spec/colorcodes.html>
- Help with determining complementary colors, etc.
 - <http://paletton.com>



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Domande?

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