

# LEARN POWER BI & BUILD YOUR OWN CORONAVIRUS REPORT

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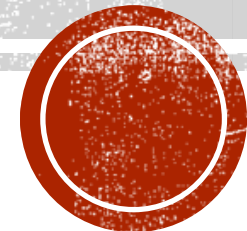
<https://github.com/STATCowboy>



Power-BI-Coronavirus-Report-Tutorial



Power BI Coronavirus Report Tutorial files for Blog Post



### Power BI Desktop

- Windows app to author self-service data driven analytic reports
- Install from Microsoft Store (monthly updates automagically!)

### Power BI Service

- MS hosted service for publishing Power BI reports and dashboards
- <http://app.powerbi.com>

### Power BI Mobile

- App for Windows, iOS (phones and tablets) & Android

### On-premises Data Gateway

- Bridge to query & load data from on-premises data sources to Power BI Service

### Power BI Report Server

- On-premises version of the PowerBI.com service (limited features than cloud version)

# POWER BI OVERVIEW





# M

- Used in Power Query for Data Wrangling
- <https://docs.microsoft.com/en-us/powerquery-m/power-query-m-reference>

# DAX

- Used to create columns, measures, calculations in Power BI (in Excel, too!)
- <https://docs.microsoft.com/en-us/dax/data-analysis-expressions-dax-reference>

## POWER BI LANGUAGES





Python

Supports Python  
for data  
wrangling and  
visualizations



R

Supports R for  
data wrangling  
and  
visualizations



Dataflows

Integrates Data  
Lake and ETL  
technology  
directly into  
Power BI

<https://STATCowboy.com/power-bi-dataflows-enabling-bi-professionals-and-data-scientists/>

# POWER BI FEATURES





## Power BI Desktop

It's Free!



## Power BI Pro

Low price of \$9.99 month!

Publish to Power BI Service



## Power BI Premium

Adds support for dedicated capacity and an enterprise pricing model and new features

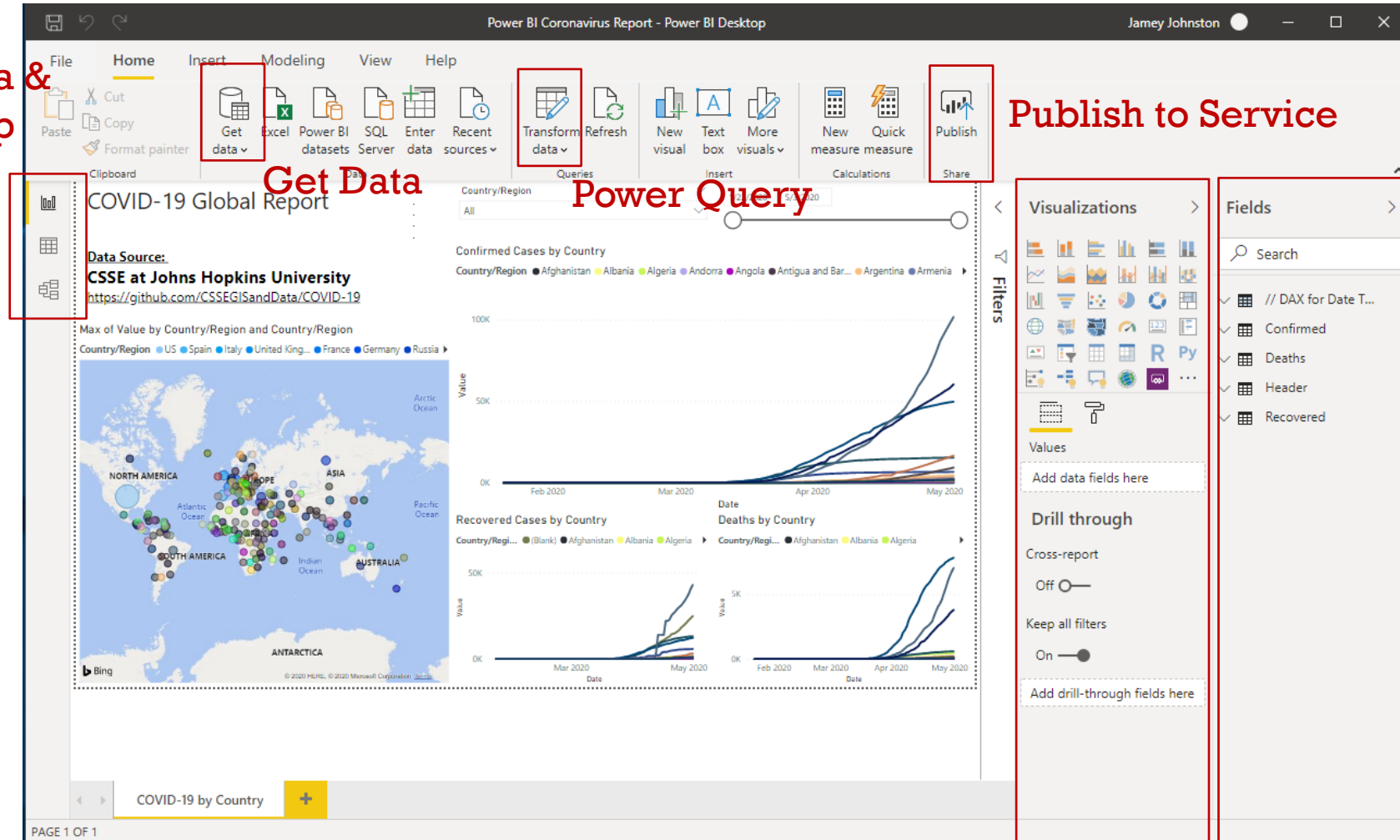
Varies by dedicated capacity needs (i.e. Nodes)

# POWER BI LICENSING



# POWER BI DESKTOP

Report, Data & Relationship View





# POWER BI DESKTOP — POWER QUERY

Close

Power BI Coronavirus Report - Power Query Editor

File Home Transform Add Column View Tools Help

Close & Apply Close New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Properties Advanced Editor Manage Columns Reduce Rows Sort Split Column Group By Data Type: Text Use First Row as Headers Replace Values Combine Text Analytics Vision Azure Machine Learning AI Insights

Queries [4]

- Confirmed
- Header
- Recovered
- Deaths

Province/State Country/Region Date Value

Valid 18% Valid 100% Valid 100% Valid 100%

Error 0% Error 0% Error 0% Error 0%

Empty 82% Empty 0% Empty 0% Empty 0%

3 distinct, 0 unique 9 distinct, 0 unique 103 distinct, 0 unique 336 distinct, 275 unique

|    |  |             |           |   |
|----|--|-------------|-----------|---|
| 1  |  | Afghanistan | 1/22/2020 | 0 |
| 2  |  | Afghanistan | 1/23/2020 | 0 |
| 3  |  | Afghanistan | 1/24/2020 | 0 |
| 4  |  | Afghanistan | 1/25/2020 | 0 |
| 5  |  | Afghanistan | 1/26/2020 | 0 |
| 6  |  | Afghanistan | 1/27/2020 | 0 |
| 7  |  | Afghanistan | 1/28/2020 | 0 |
| 8  |  | Afghanistan | 1/29/2020 | 0 |
| 9  |  | Afghanistan | 1/30/2020 | 0 |
| 10 |  | Afghanistan | 1/31/2020 | 0 |
| 11 |  | Afghanistan | 2/1/2020  | 0 |

4 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows

PREVIEW DOWNLOADED AT 11:43 AM

Query Settings

PROPERTIES

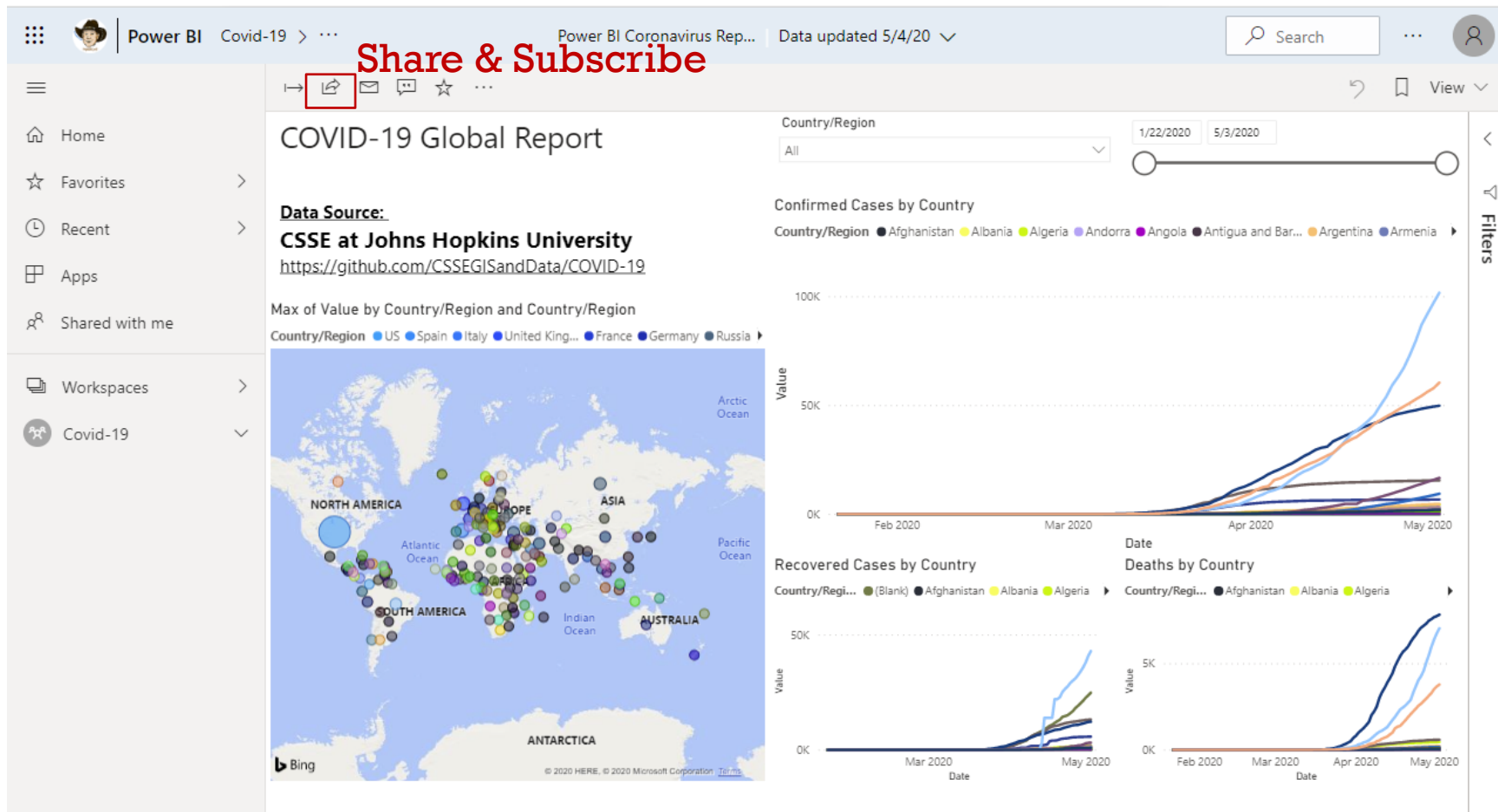
Name

Confirmed

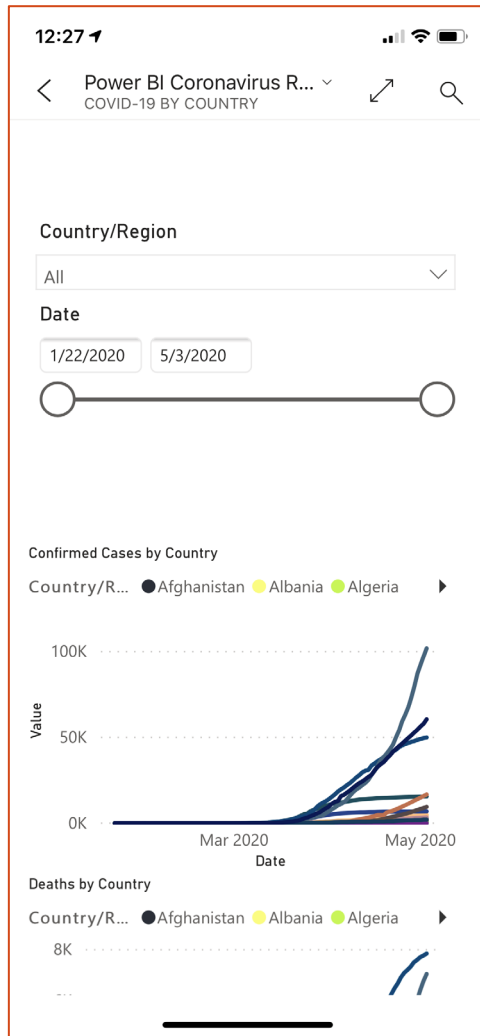
APPLIED STEPS

- Source
- Promoted Headers
- Removed Columns
- Unpivoted Other Columns
- Renamed Columns
- Changed Type

# POWER BI SERVICE








9:56

Search

 **Microsoft Power BI**  
Microsoft Corporation

OPEN

4.7 ★★★★★  
5.43K Ratings

4+  
Age

**What's New** [Version History](#)

Version 17.1 6d ago

- When you receive a link in a report that has an active URL filter (query string) applied to it, the report will open pre-filtered. [more](#)

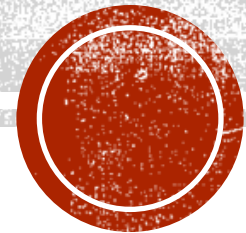
**Preview**

Monitor your most important business information, all in one place

Interact with y to discover new

Today Games Apps Updates Search

# POWER BI MOBILE



# COVID-19 DATA REPOSITORY

CSSEGISandData / COVID-19 Watch

[Code](#) [Issues 1,290](#) [Pull requests 252](#) [Actions](#) [Projects 0](#) [Wiki](#) [Security](#)

Branch: master [COVID-19](#) / [csse\\_covid\\_19\\_data](#) / [csse\\_covid\\_19\\_time\\_series](#) /

CSSEGISandData automated update

..

|  |                  |
|--|------------------|
| <a href="#">.gitignore</a>                               | update           |
| <a href="#">Errata.csv</a>                               | format update    |
| <a href="#">README.md</a>                                | Update README    |
| <a href="#">time_series_covid19_confirmed_US.csv</a>     | automated update |
| <a href="#">time_series_covid19_confirmed_global.csv</a> | automated update |
| <a href="#">time_series_covid19_deaths_US.csv</a>        | automated update |
| <a href="#">time_series_covid19_deaths_global.csv</a>    | automated update |
| <a href="#">time_series_covid19_recovered_global.csv</a> | automated update |

- Center for Systems Science and Engineering (CSSE) @ Johns Hopkins University
- GitHub
- Daily time series summary tables including confirmed, deaths and recovered
- <https://github.com/CSSEGISandData/COVID-19>



## COVID-19 Global Report

Data Source:

CSSE at Johns Hopkins University

<https://github.com/CSSEGISandData/COVID-19>

Max of Value by Country/Region and Country/Region

Country/Region: China, Italy, Iran, Spain, Germany, Korea, South, France



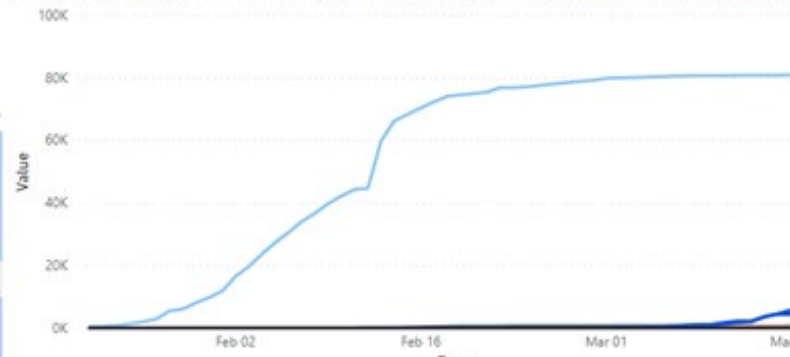
Country/Region

All

1/22/2020 3/17/2020

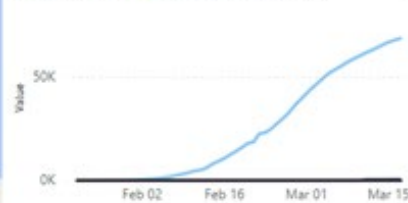
Confirmed Cases by Country

Country/Region: Afghanistan, Albania, Algeria, Andorra, Antigua, Argentina, Armenia, Aruba, Australia



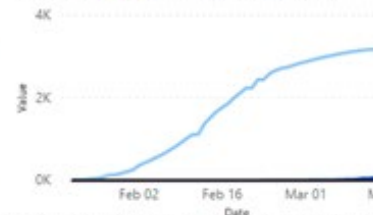
Recovered Cases by Country

Country/Region: Afghanistan, Albania, Algeria



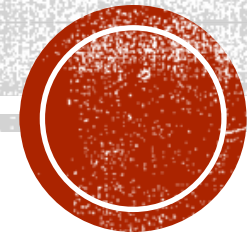
Deaths by Country

Country/Region: Afghanistan, Albania, Algeria



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## Power BI Docs & Blog

- <https://powerbi.microsoft.com/en-us/blog/>
- <https://docs.microsoft.com/en-us/power-bi/>

## Guy in a Cube YouTube Channel

- <https://guyinacube.com/>
- <https://www.youtube.com/channel/UCFp1vaKzpfvoGai0vE5VJ0w>

## Power BI YouTube Channel

- <https://www.youtube.com/user/mspowerbi>

## RADACAD

- <http://radacad.com/>

## SQL BI

- <https://www.sqlbi.com/>
- <https://dax.guide>

# RESOURCES



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