

Single Day Event

Next-Gen Clinical Analytics Exploring the SAS Viya Dashboards

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Agati Clinical



Disclaimer

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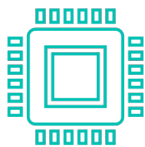


Agenda

- SAS Viya
- User Interfaces in SAS Viya
- SAS Visual Analytics
 - Navigating Panes
- Dashboards Discoveries
- Key Insights



SAS Viya



SAS Viya is a cloud-enabled, with the power of in-memory computation, it delivers insights with the speed and precision that today's dynamic world demands.



From raw data to operational insights, SAS Viya simplifies decision-making across your enterprise



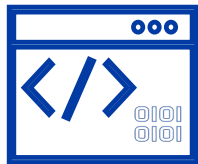
Secure web access eliminates the need for local installs, letting you dive into your data anytime, anywhere



it's built for everyone, from data scientists to executives, it offers interfaces that adapt to different work styles

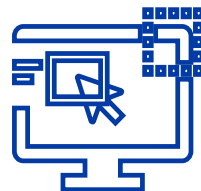


User Interfaces in SAS Viya



Programming Interface

- If you like to code, SAS Studio is for you.



Visual Interface

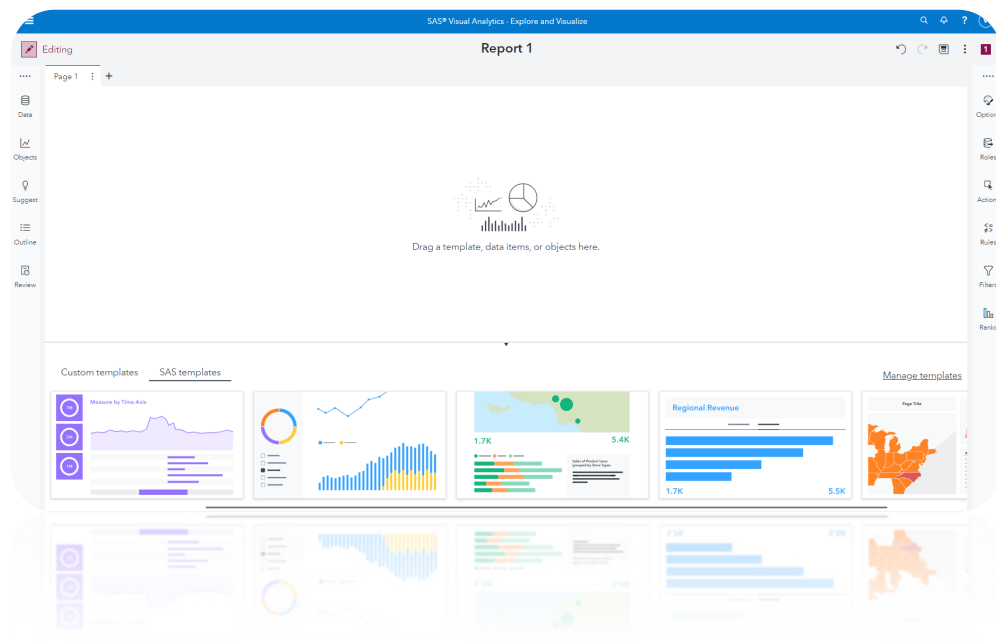
- Don't code? No problem. SAS Viya has easy drag-and-drop tools to help you!

-
- SAS Viya has powerful tools:
 - **SAS Visual Analytics**
 - SAS Drive
 - SAS Visual Data Mining and Machine Learning
 - SAS Studio



SAS Viya Visual Analytics

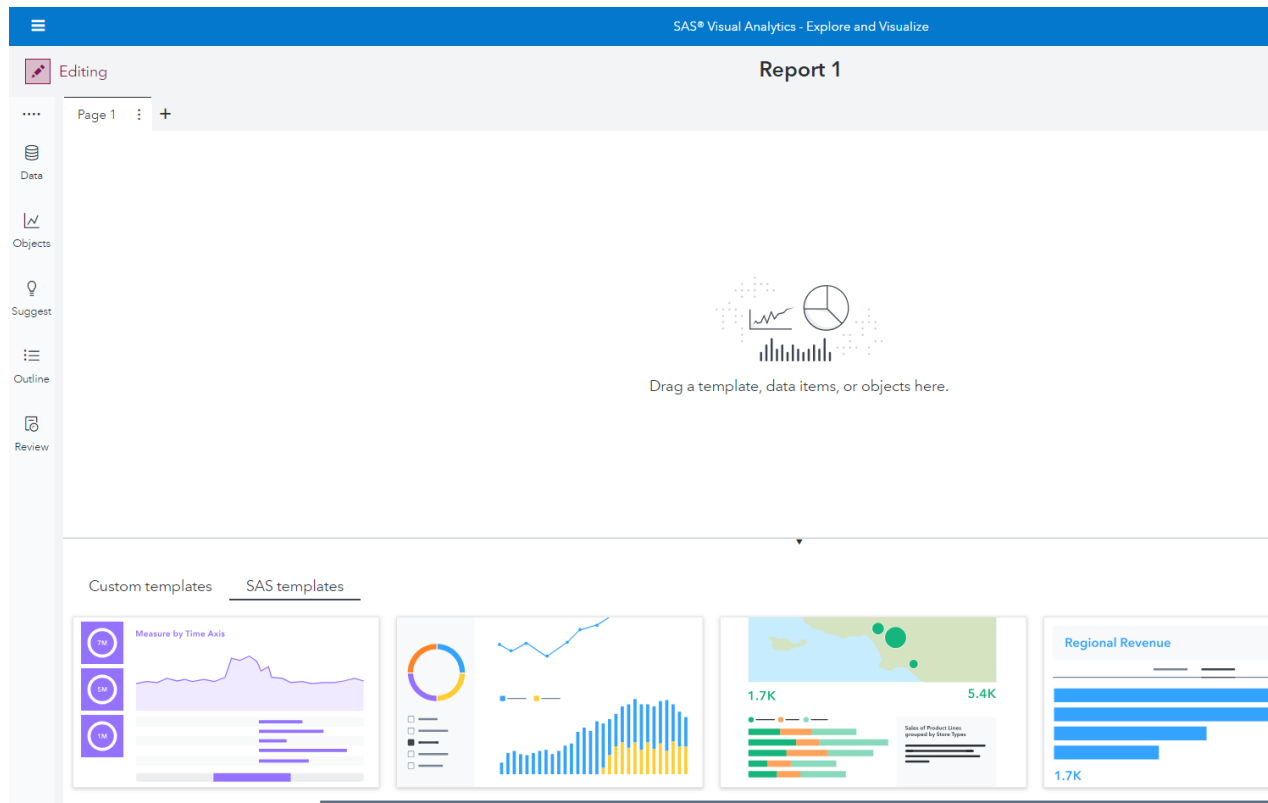
- Collaborative and cross-departmental decision-making
- **Data expert or a team leader** - it helps highlight essential data
- Reveals Data trends and pattern visually
- **No technical expertise is required**





Navigating the Contents Pane

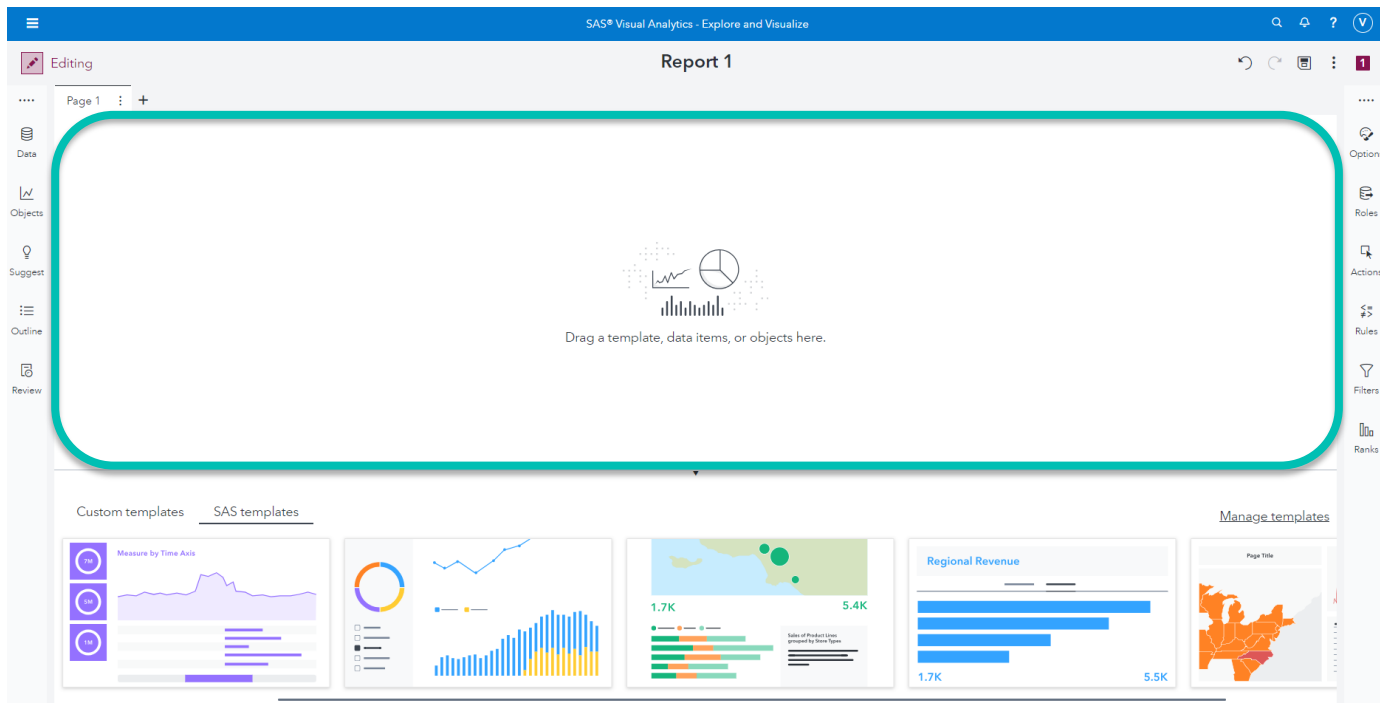
- Gateway to efficient analysis
- **With a click**, you can open various panes and craft your report as smoothly as possible





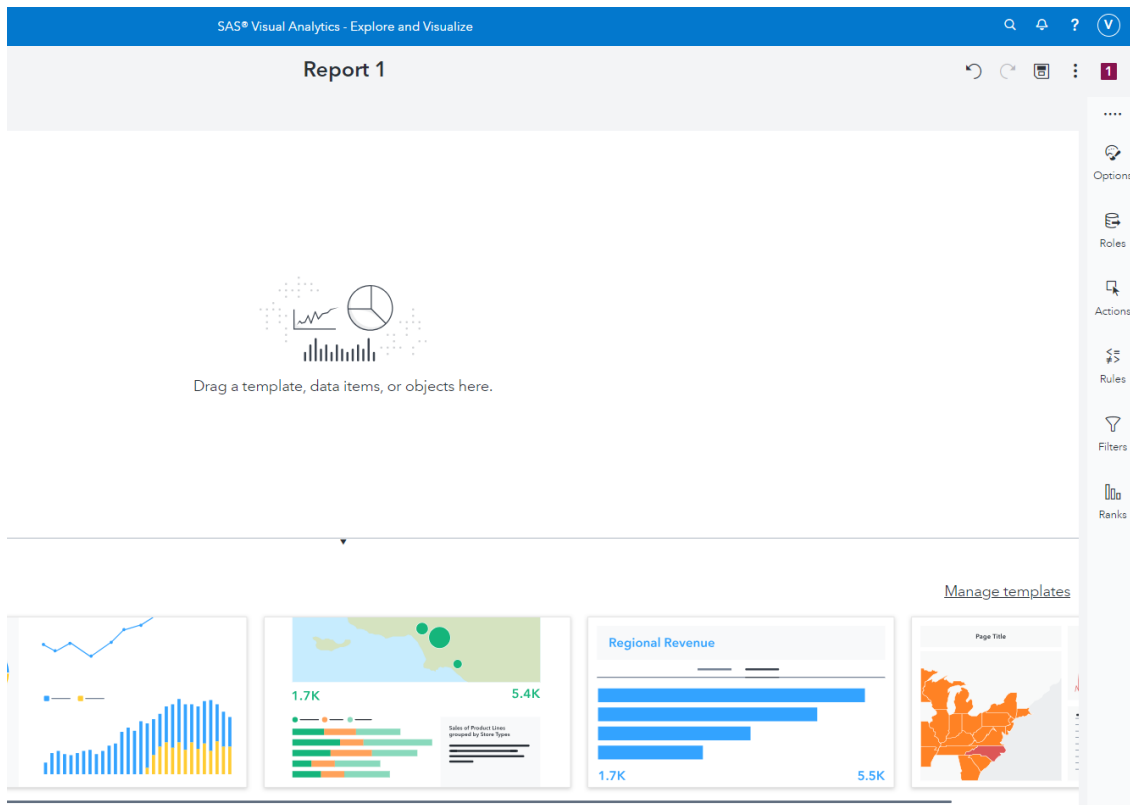
The Canvas - Artistic Space

- It's where **you bring data to life**
- This canvas is your space for creativity and **analytical storytelling**





Properties Pane - Toolbox for Precision

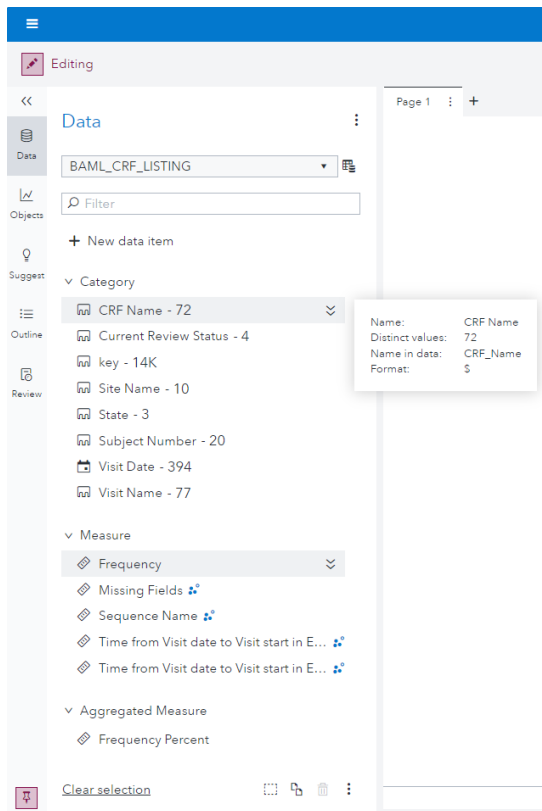


- It's the tools to refine and define your reports
- Here, you can manage options, assign data roles, set actions, establish rules, apply filters, and even rank your data
- It's about giving **precision to your insights**



Dynamic Data Management

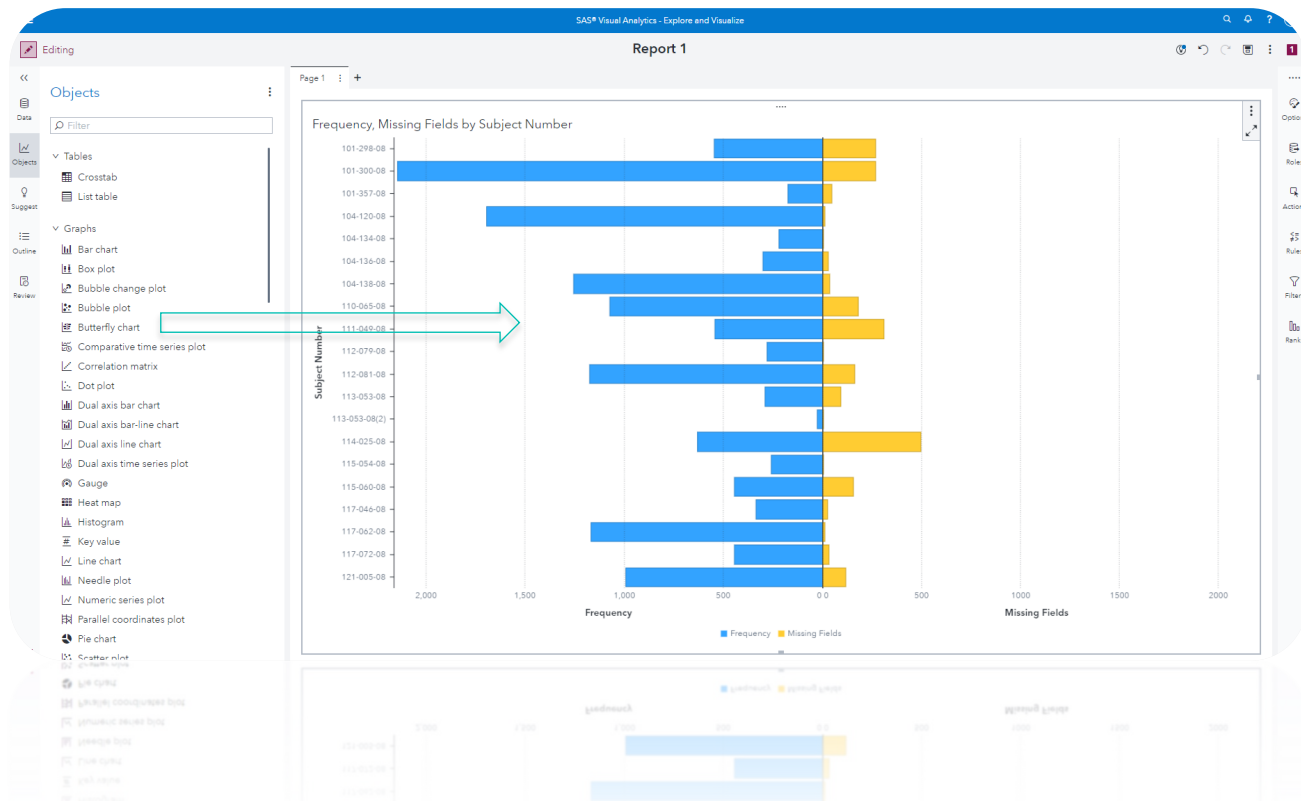
- Control center for your data sources
- Add new data and refresh existing sources
- It's all about keeping your data dynamic and relevant



- Provides information about a selected data item or custom category



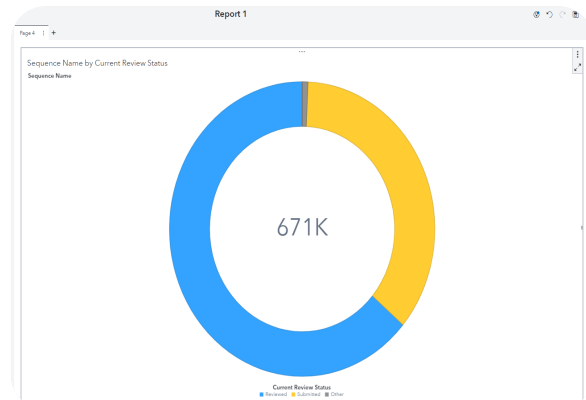
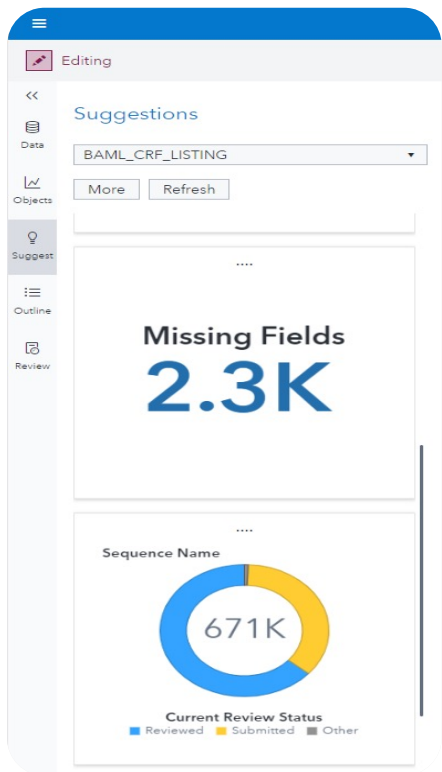
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Suggestion Pane - Analytical Advisor

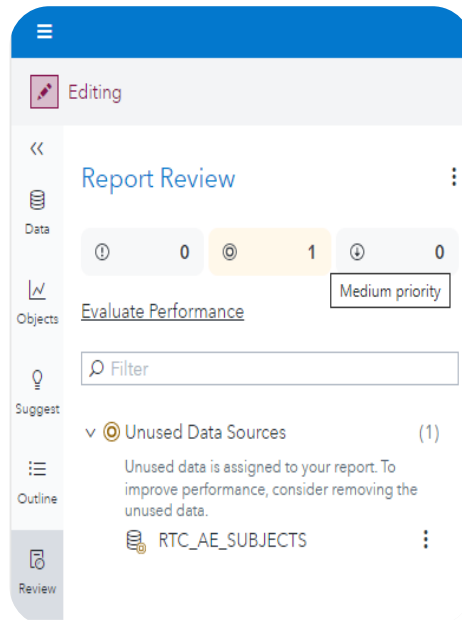
- Once you select a data source, it proposes objects and visualizations, **sparking new ideas** for how to represent your data





Report Review - Quality Check

- Acts as your **quality checkpoint**
- It highlights **areas for improvement**, ensuring your reports are great



Report 1 Report Review

October 30, 20,
Vignesh Murugaperuma

0 High priority
1 Medium priority
0 Low priority
23 Pass

Unused Data Sources - Medium priority

Unused data is assigned to your report. To improve performance, consider removing the unused data.

• RTC_AE_SUBJECTS

Aggregate Data Sources - Pass

The report does not contain an aggregate data source.

Animation - Pass

The report does not contain animation.

Calculation Count - Pass

The report does not contain data sources with too many calculations.

Color-Dependent Display Rules - Pass

The report does not contain display rules.

Custom Categories Count - Pass

The report does not contain custom categories with too many values.

Custom Sort Value Count - Pass

The report does not contain custom sorts with too many values.

Data Source Count - Pass

The report contains no pages with too many data sources.

Data-Loading Times - Pass

The report does not contain data queries that are slow to execute.

Joined Data Sources - Pass

The report does not contain a joined data source.

Lattices - Pass

The report does not contain lattices.

Linked Selections - Pass

The report does not contain linked selections.

Nested Containers - Pass

The report does not contain too many nested containers.

Object Count - Pass

The report does not contain pages with too many data objects.

Object Names - Pass

The report does not contain object names that affect accessibility.

Overview Axes - Pass

The report does not contain overview axes.

Page Control Count - Pass

There are no pages with too many controls in the prompt area.

Page Count - Pass

The report does not contain too many pages.

Percentage of Columns Used - Pass

The report does not contain data sources with too many unused columns.

Query Cache Misses - Pass

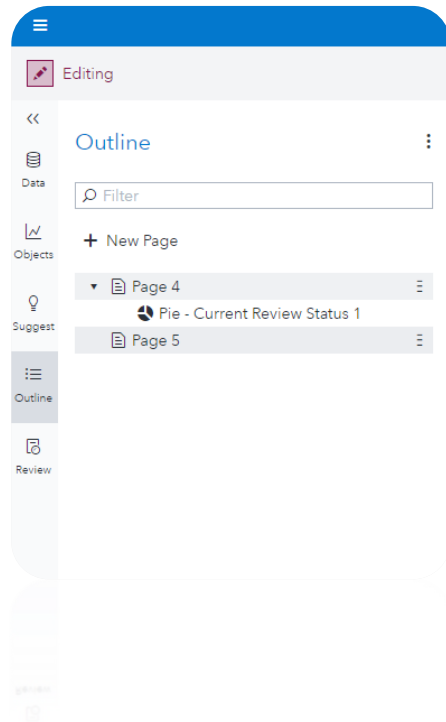
The report contains no data queries that do not use the query cache.

Use the following table to view the results of the report review.



Outline Pane - Organize with Ease

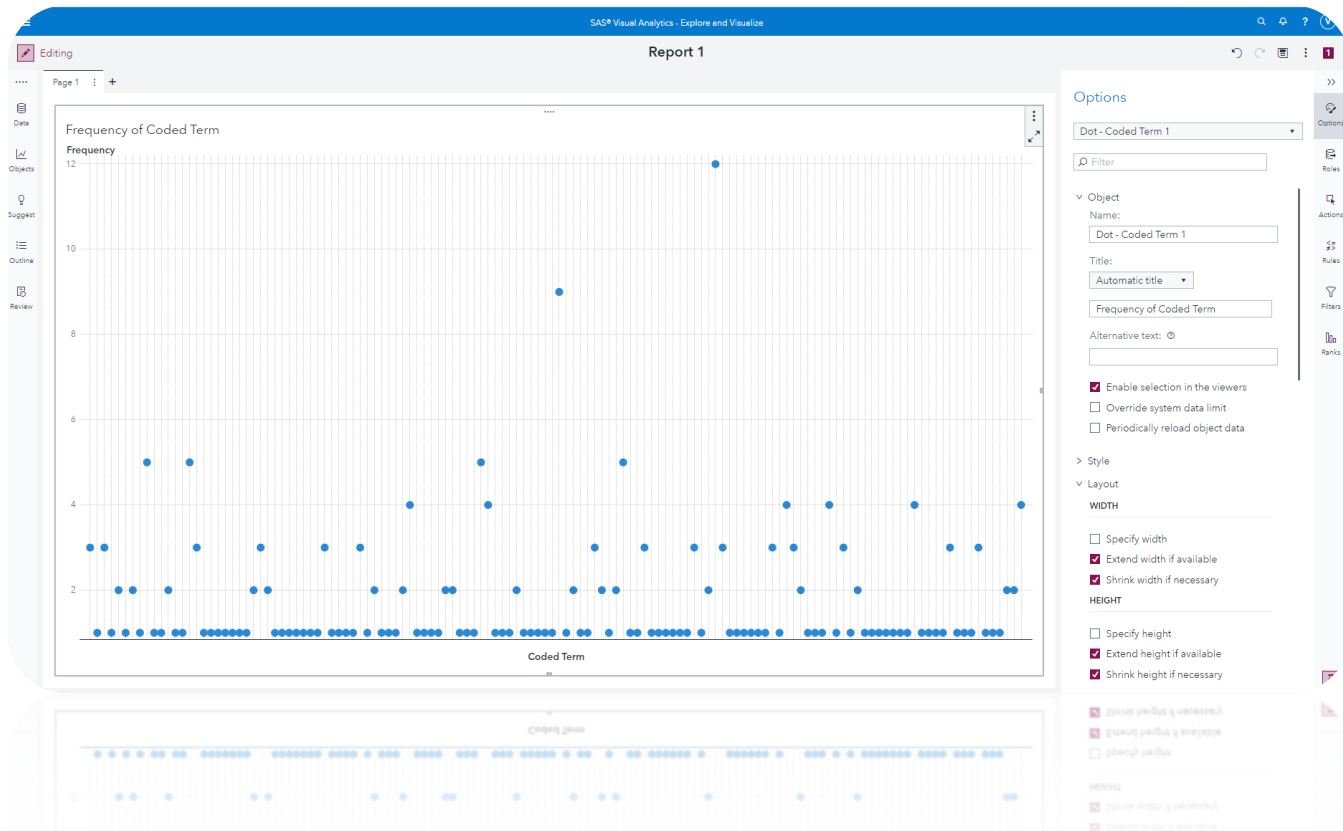
- It's where you **can structure your report's** pages and objects, rename, hide, or move them around with ease
- It's about keeping your report not just informative but also navigable





Options Pane - Customize Your Style

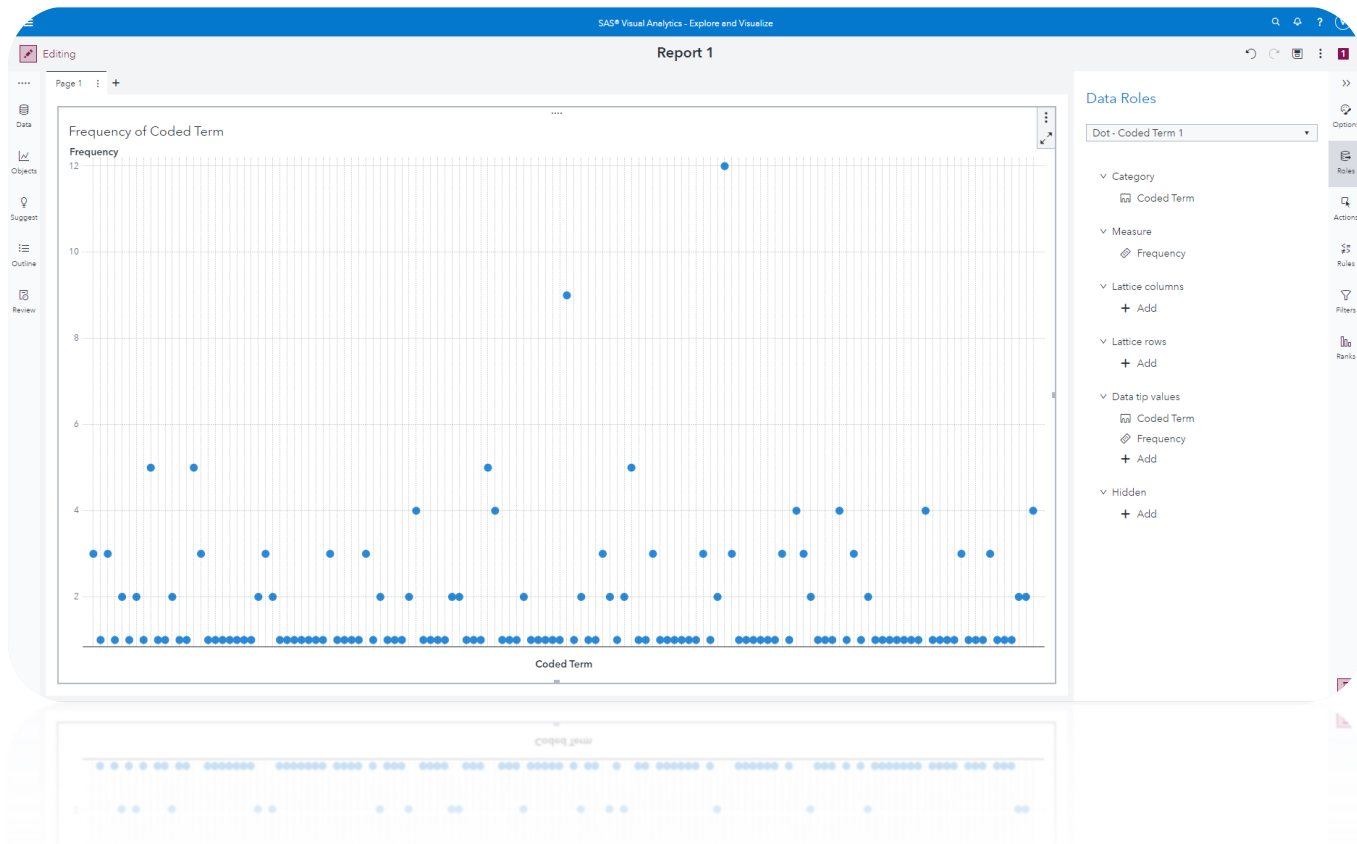
- It allows you to **tailor the look and feel** of your reports
- **Personalize** data styling, frame styling, and more





Role Pane - Define Your Data

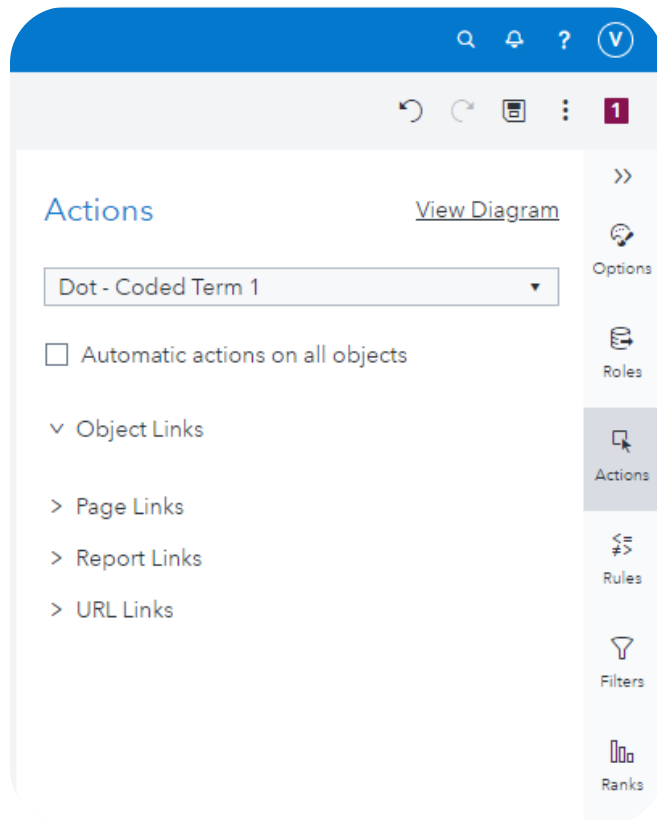
- It's where you **define the role** of each data item in your visualization
- It's about assigning the right part to your data, **ensuring it tells the right story**





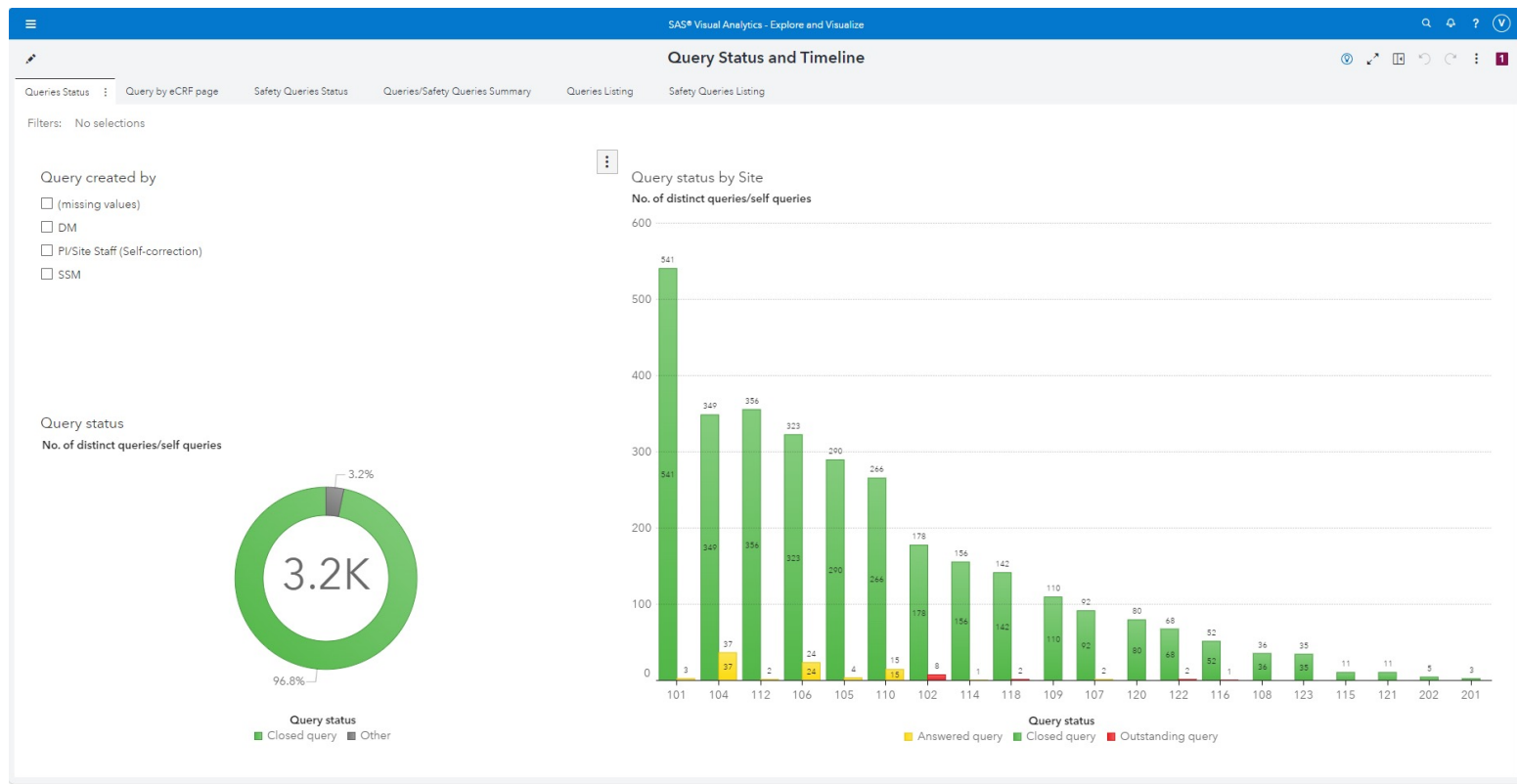
Other Properties Pane

- **Action** enables you to create filters and link objects within or between reports
- **Rules** enables you to create rules to highlight results based on specified values
- **Filters** enables you to add one or more filters to the selected object
- **Ranks** enables you to add rankings to objects



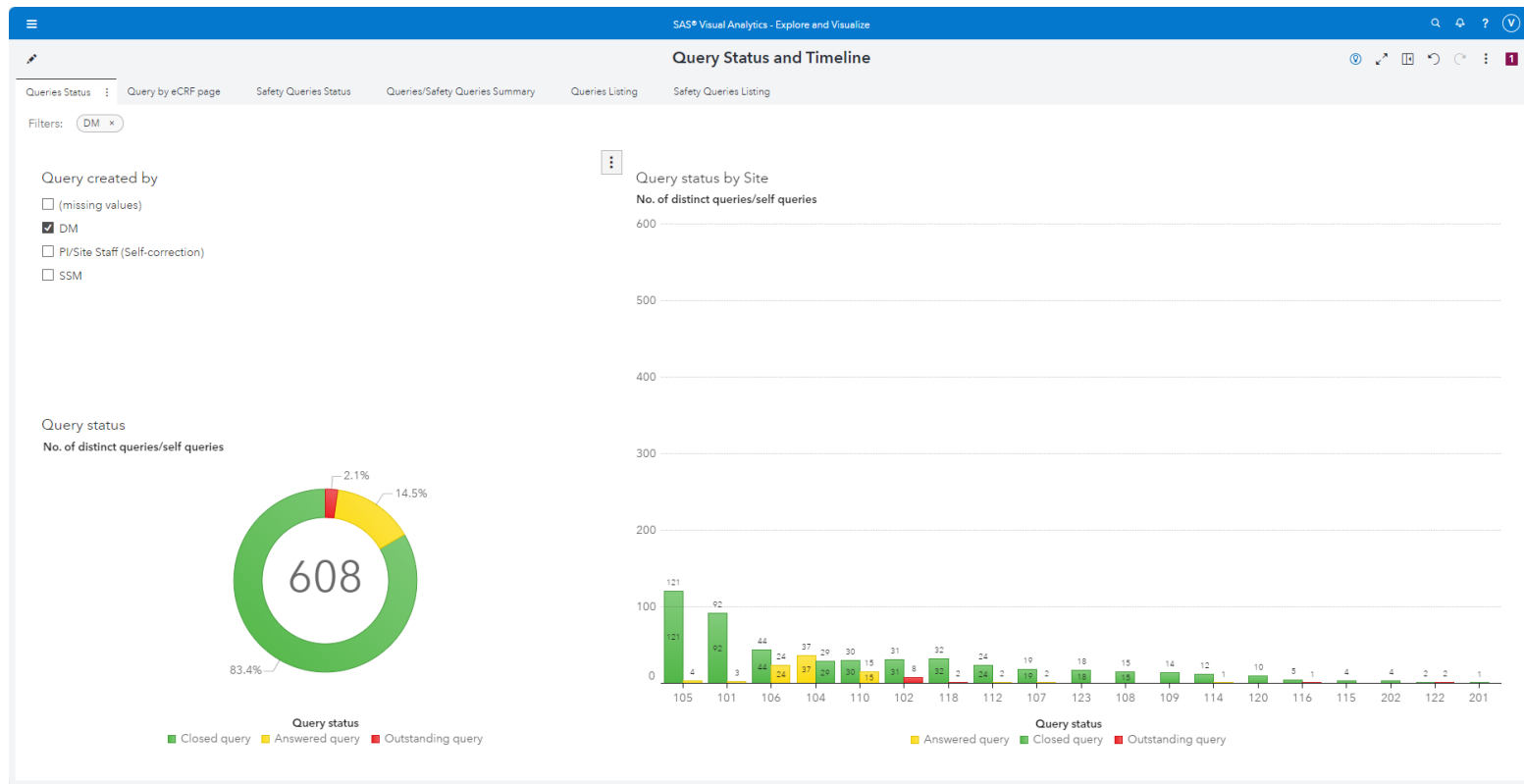


Dashboard Discoveries



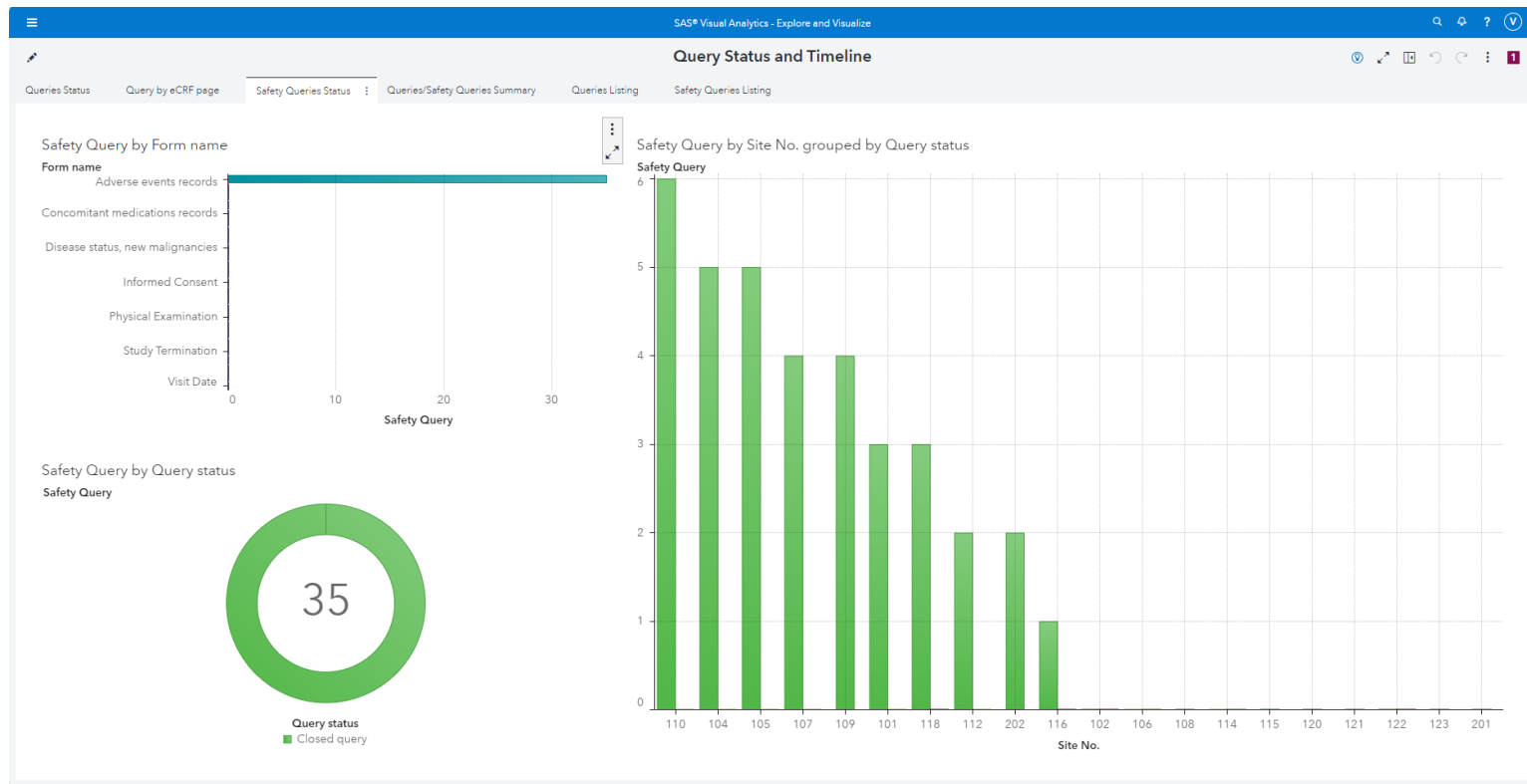


Dashboard Discoveries





Dashboard Discoveries



Using SAS Viya to visualize and track the coronavirus outbreak



2019-20 Novel Coronavirus Outbreak

Global Cases and Analysis of SARS-CoV-2

Cases as of:

May 31, 2020



Total Confirmed Cases
6,166,946

Total Deaths
372,035

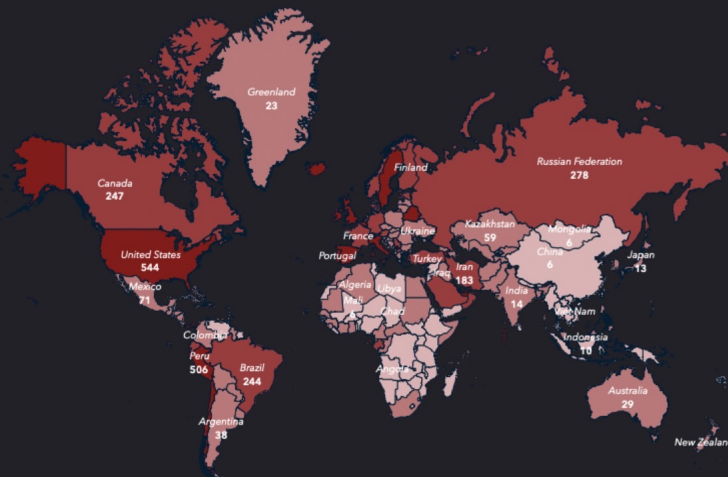
Case Fatality Rate
6.03%

Mortality Rate
0.005%

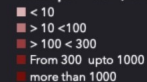
In early December 2019, a new coronavirus, designated **SARS-CoV-2**, was identified in Wuhan, China. The illness from the outbreak, termed COVID-19, on March 11, 2020, has now been declared as a global pandemic by [World Health Organization](#).

Cases per 100k population Confirmed cases by country

Total confirmed cases of COVID-19 per 100k population by country



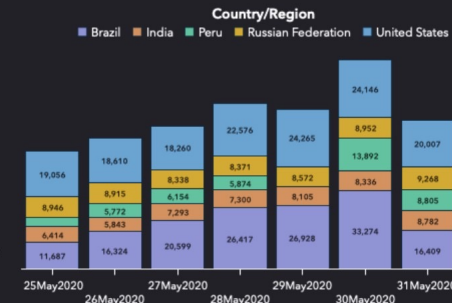
Cases per 100k (Range)



Overall outbreak by country (Top 10)

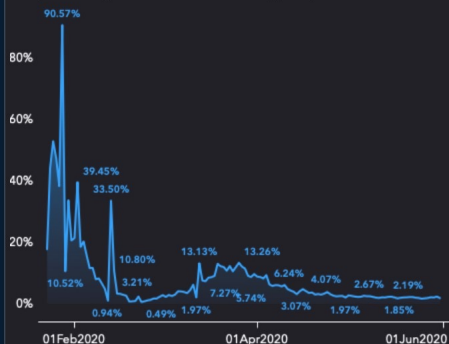
Country/Region	Total Confirmed Cases	Prevalence (/100k)	Total Deaths
United States	1.8M	544	104K
Brazil	515K	244	29K
Russian Federation	406K	278	4.7K
United Kingdom	276K	409	39K
Spain	239K	512	27K
Italy	233K	385	33K
India	191K	14	5.4K
France	189K	290	29K
Germany	183K	220	8.5K
Peru	164K	506	4.5K
All Other	2M	21,587	87K

New Cases - Top 5 impacted countries (last 7 days)



More details by each location available [here](#)

Daily % change in confirmed cases (global)



Daily new confirmed cases and deaths (global - last 7 days)





2019-20 Novel Coronavirus Outbreak

Global Cases and Analysis of SARS-CoV-2

Cases as of:

May 31, 2020



Select focus zone

European Union Other Countries

Select a Country/Region name

United States (1,789,826)

For the selected country/region **United States**, **0.544%** of the total population (2019) is affected by this outbreak. This represents **544 total confirmed cases** of COVID-19 for every 100,000 people. At current rate, number of cases double every **38** days.

Incidence Rate is at **0.006%** and represents **6 new confirmed case(s)** of COVID-19 for 100,000 people.

Total Confirmed Cases

1,789,826

Total Deaths

104,371

Population

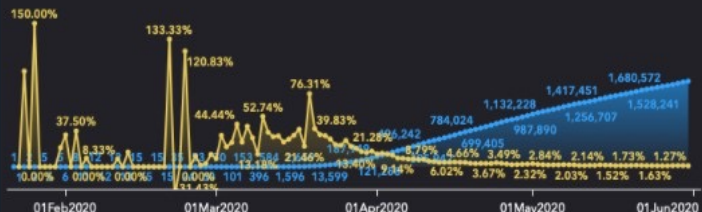
329M

New cases by country/province/state on May 30, 2020

Province/State Label	Confirmed	Deaths
California	2,054	28
Texas	1,977	23
Illinois	1,343	60
New York	1,110	74
Virginia	996	5
North Carolina	991	8

Daily Cases (Country) - % change in confirmed cases over reporting period

Total Confirmed Cases Confirmed Cases (% Change)





2019-20 Novel Coronavirus Outbreak

Global Cases and Analysis of SARS-CoV-2

Cases as of:

May 31, 2020



Select focus zone

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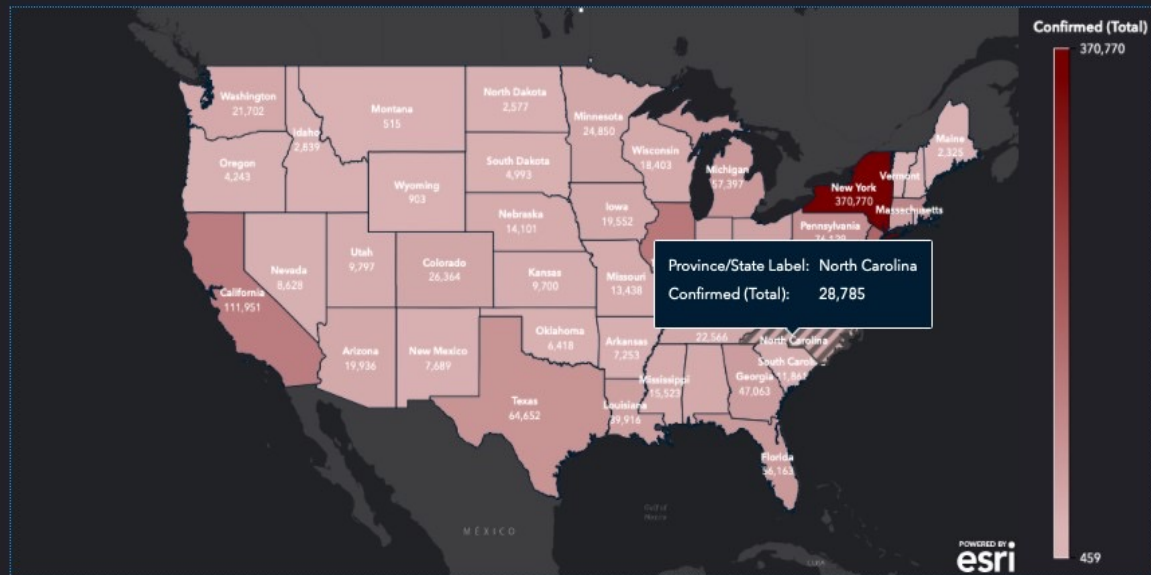
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Daily Cases (Country) - % change in confirmed cases over reporting period

Total Confirmed Cases Confirmed Cases (% Change)



POWERED BY
esri



2019-20 Novel Coronavirus Outbreak

Global Cases and Analysis of SARS-CoV-2

Cases as of:

May 31, 2020



SAS Viya

The color shading of a country and provinces is based on the increasing total number of confirmed cases of SARS-CoV-2.

Spread by State/Province for following countries

[Australia](#)[Canada](#)[China](#)[Germany](#)[India](#)[Italy](#)[United States](#)

Global confirmed cases for each country by each day over reporting period



Reporting Period 22Jan2020 31May2020

Confirmed cases by State/Province level



Reporting Period 22Jan2020 31May2020



2019-20 Novel Coronavirus Outbreak

Global Cases and Analysis of SARS-CoV-2

Cases as of:

May 31, 2020



Case Curve Comparison Confirmed cases: Days to double Confirmed Cases - % Change Daily Pulse New Cases by case type - Weekly Confirmed : Deaths - Over time Confirmed : CFR - Daily

Select a measure

Number of Days Since 100th Case

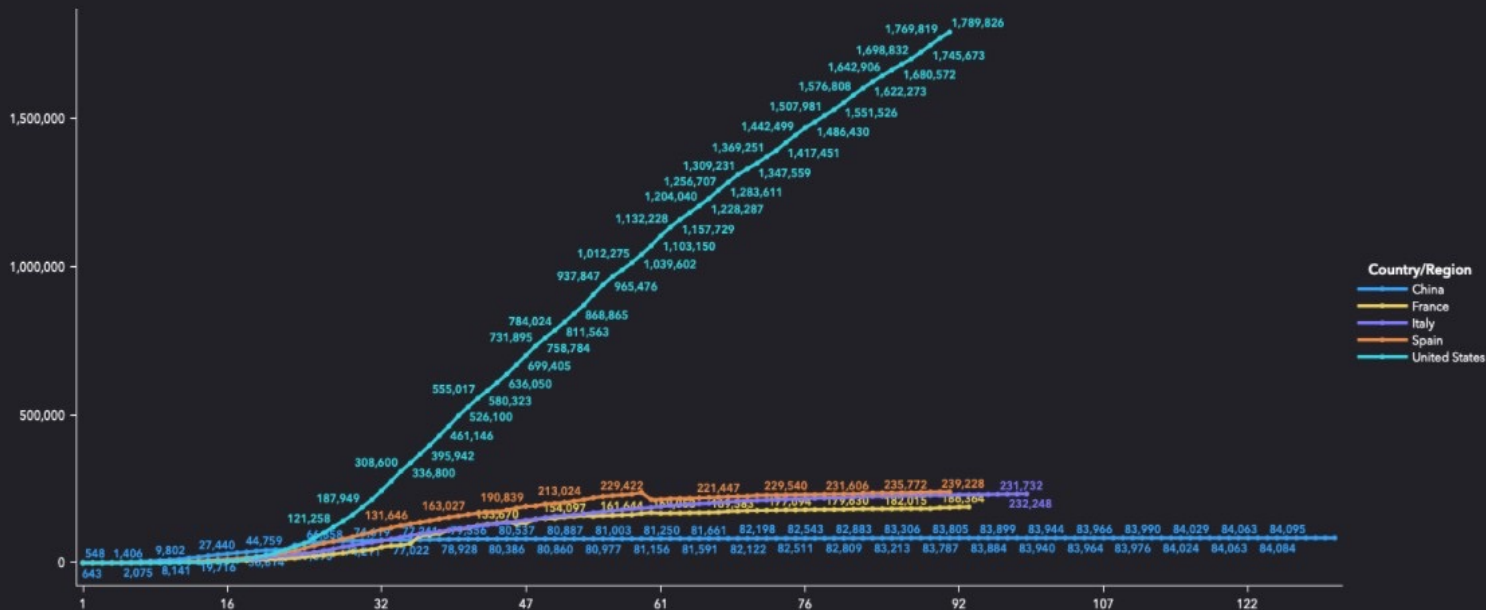
Select day range

1 to 131

Select country/region

- ☐ Afghanistan
- ☐ Albania
- ☐ Algeria
- ☐ Andorra
- ☐ Angola
- ☐ Antigua and Barbuda
- ☐ Argentina
- ☐ Armenia
- ☐ Aruba
- ☐ Australia
- ☐ Austria
- ☐ Azerbaijan

Confirmed (Total)





2019-20 Novel Coronavirus Outbreak

Global Cases and Analysis of SARS-CoV-2

Cases as of:

May 31, 2020



Country View Prevalence Rate Curve Comparison Prevalence / 100k Curve Comparison

Select a country/region

United States (1,789,826)

COVID19 Prevalence - Total confirmed cases of COVID-19 per 100k population by country

Total Population	Confirmed (Total)
329M	1.8M
Incidence (/100k)	Prevalence (/100k)
6	544
Incidence Rate	Prevalence Rate
0.006%	0.544%
Case Fatality Rate	Mortality Rate
5.83%	0.032%





2019-20 Novel Coronavirus Outbreak

Global Cases and Analysis of SARS-CoV-2

Cases as of:

May 31, 2020



< Country View **Prevalence Rate Curve Comparison** Prevalence / 100k Curve Comparison >

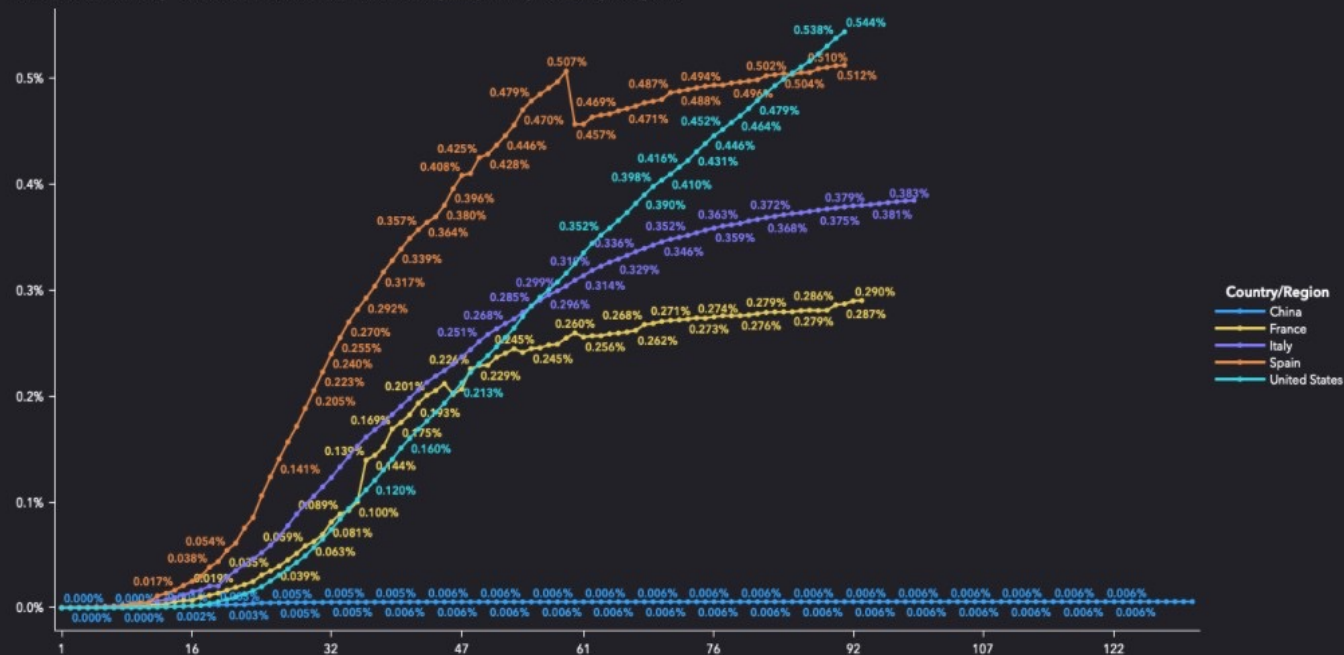
Select a time base line

Number of Days Since 100th Case

Select country/region

- ☐ Afghanistan
- ☐ Albania
- ☐ Algeria
- ☐ Andorra
- ☐ Angola
- ☐ Antigua and Barbuda
- ☐ Argentina
- ☐ Armenia
- ☐ Aruba
- ☐ Australia
- ☐ Austria
- ☐ Azerbaijan
- ☐ Bahamas
- ☐ Bahrain
- ☐ Bailiwick of Guernsey
- ☐ Bangladesh

Prevalence (%) by Variable Dimension Date (EPI) grouped by Country/Region



Incidence - New confirmed cases / country population (2019), represented as new cases per 100,000 people. **Prevalence** - Total confirmed cases / country population (2019), represented as total cases per 100,000 people. **Mortality Rate** is the ratio of number of deaths to the total population (2019) of impacted country.

[Source](#), [Disclaimer](#) and [Data Information](#)



2019-20 Novel Coronavirus Outbreak

Global Cases and Analysis of SARS-CoV-2

Cases as of:

May 31, 2020



Total Confirmed Cases

6,166,946

Total Deaths

372,035

As of May 30, 2020, **0.080%** of the total world population of 7.72B (2019) is affected by this outbreak. This represents **80 total confirmed cases** of COVID-19 for every 100,000 people.

Incidence Rate is at **0.001%** and represents **1 new confirmed case(s)** of COVID-19 for 100,000 people.

Currently there are **3,153,582** estimated active cases in **190** countries around the world.

Case Fatality Rate (Deaths / Confirmed cases) across global cases is at **6.03%** and Mortality (Deaths / Population) is at **0.005%**

Type Country/Region name

Country/Region	Total Confirmed Cases	Total Deaths	Case Fatality Rate	Active Cases
United States	1.8M	104K	5.83%	1.2M
Brazil	515K	29K	5.69%	279K
Russian Federation	406K	4.7K	1.16%	229K
United Kingdom	276K	39K	13.97%	236K
Spain	239K	27K	11.33%	62K
Italy	233K	33K	14.34%	42K
India	191K	5.4K	2.84%	93K
France	189K	29K	15.24%	92K
Germany	183K	8.5K	4.66%	9.5K
China	82.8K	8.5K	10.27%	8.2K
World	6.2M	372K	6.03%	3.2M



Key insights!

- User Friendly Interface
- Collaborative Visual Analytics
- Dynamic Data Management and Visualization
- Quality

And here's "one more thing."

“

It's where your **creativity** meets the future,

where your analysis **ignites** action, and

”

where every discovery **pushes** the human story forward.

Thank You



**The Global Healthcare
Data Science Community**

Contact Channels

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Social Media

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🌐 [/company/phuse](https://linkedin.com/company/phuse)

References

<https://blogs.sas.com/>

<https://www.sas.com/>