In this lab, you will use the skills you have learned so far in data visualization to create a piece of data journalism about where in the world the coronavirus situation is the worst.

# **Scenario**

You work for a global public health body, and it has asked you to produce a piece of data journalism on, “***Where is the coronavirus situation the worst?***”

You have one and a half days to create the story as it needs to be published on the agency’s website to coincide with an important press conference.

# **Deliverables and Timing**

Submit a Tableau Packaged Workbook (.twbx) file containing:

* Worksheets with various graphics that help to tell your story
* A Story
* Dashboard(s) to support your Story
* (Optional) Animation(s) to support your Story

You will also present your Story to the agency’s Board (the class :)) for 15 minutes at the end of the Lab. The Story should clearly communicate the most important messages about the current impact of the disease across the world. It should contain enough interactivity so a user can dig deeper into the data if needed, but not so much as to overwhelm a user or detract from the key messages.

You will have **a day and a half of class** time to complete the lab. At the end of class, you will present your findings to the class, and you’ll share your final deliverable with your instructor for review. You can choose to work on the lab individually or with your classmates, and the presentation can involve more than one person, but each person must turn in their own Tableau file.

You are free to go in any direction you would like with it, but if you get stuck for ideas have a look at the **Tips** section below for some inspiration.

# **Data**

You can get the data [here](https://github.com/owid/covid-19-data/tree/master/public/data). It is from [Our World in Data](https://ourworldindata.org/), a great resource for data and visualizations with a mission to “..make progress against the world’s largest problems.”

The data is hosted in [Github](https://github.com/), a centralized store of code and data for people and organizations.

Scroll down on the data page and look at the README to start getting acquainted with the data.

You will see 🗂️ **Download our complete COVID-19 dataset :** [**CSV**](https://covid.ourworldindata.org/data/owid-covid-data.csv) **|** [**XLSX**](https://covid.ourworldindata.org/data/owid-covid-data.xlsx) **|** [**JSON**](https://covid.ourworldindata.org/data/owid-covid-data.json)

Select the csv and save it into the folder where you will be working. (This may take a few minutes as the data file is large.)

You can also see the Data Dictionary [here](https://github.com/owid/covid-19-data/blob/master/public/data/owid-covid-codebook.csv).

# **Skills**

This lab will help you try out some key skills we have learned so far in data visualization, including data visualization best practices, how to communicate your data, how to create visuals, dashboards, and stories within Tableau, and how to create animations.

# **Tips**

* Start with loading the data and getting familiar with what you have (and what you don’t have)
* Clean the data where you need to
* Be sure to spend at least **90 minutes** on pulling together your story from the graphics and insights that you produce

Here are a few questions to help guide you:

1. Think about the question you are answering — “***Where is the coronavirus situation the worst?***” — and how you can better frame the question:
   1. How will you quantify ‘worst’ and what are the pros and cons of your choice?
   2. What level of geography are you looking at, and what are the limitations associated with it?
   3. What is the timeframe you’re interested in?
2. Are there other limitations of the data set?
3. What information is missing?
4. Do the countries which have been most affected by coronavirus share any characteristics in common? (e.g., high GDP.)
5. Can you see the impact of vaccines in countries?

# **Stretch Goals**

* Have a look at the [vaccinations](https://github.com/owid/covid-19-data/tree/master/public/data/vaccinations) subset of data, and incorporate the relevant insights into your story and animations.
* Find additional data to add to the data set and enrich your story.
* Include moving averages to smooth out the data: [How to show moving averages in Tableau](https://www.rigordatasolutions.com/post/tableau-moving-average).
* If you have time, start looking at the other lab.

# **Rubric**

Instructors will evaluate student skill based on the following rubric:

|  | **Incomplete** | **Doesn’t Meet Expectations** | **Meets Expectations** |
| --- | --- | --- | --- |
| **Tableau Packaged Workbook (.twbx) file** | Workbook not present or submitted | Workbook submitted but without one of worksheet, Story, and Dashboard | Workbook submitted with all of worksheet(s), Story, and Dashboard(s) |
| **Worksheets** | No Worksheets created | Minimal (up to 3) worksheets created, and it is unclear how they support the story that is being told | Many graphics created in worksheets (3+), which are clearly relevant to the story being told based on their titles and / or commentary within each worksheet. |
| **Dashboard** | No Dashboard created within the Workbook | Dashboard(s) created but it is not clear on why the information included has been included | Dashboard(s) created using relevant information from the worksheets, and the overall story is clear |
| **Storytelling** | No Story created within the Workbook | Story created but does not use the techniques taught in class | Story created using Worksheets and / or Dashboards and / or Animations, using the techniques taught in class |
| **Animation (optional)** | No animation created | Animation created but its relevance to answering the question is unclear | Animation supports answering the question, and adds additional insight and information to the Dashboard(s) |
| **Presentation** | Story not presented to class | Story presented but in an incoherent way | Story presented within time slot allocated, including questions from audience |

You must receive a score of at least **Meets Expectations** in all categories (except the Optional elements) to pass this Lab.

**Good luck and have fun!**