



You will work **individually** on a data visualization project that examines a real-world problem faced during the global coronavirus outbreak. The objective is to design a compelling analytical dashboard that helps a specific group of stakeholders understand how the virus spread, how it evolved over time, and what implications can be drawn from the patterns you uncover. You are free to choose the professional role you want to assume, such as a public health analyst, a data scientist in a government agency, a consultant for an international organization, or any other position that gives context to your analysis. You should also clearly identify your stakeholders so that the visualizations, narrative and insights you produce are tailored to their needs.

You will select a dataset from the WHO COVID-19 data repository (<https://data.who.int/dashboards/covid19/data>). The dataset you choose should allow you to build a meaningful story about the pandemic. As you explore the data, consider what questions matter to your chosen stakeholders. You may focus on case growth, mortality trends, vaccination progress, regional comparisons, demographic patterns, or any other angle that supports your narrative. The goal is not only to display numbers but to craft a story that reveals something actionable, insightful or surprising.

Your submission must include a Streamlit application that presents your dashboard in an organized and interactive format. Within this app, you must incorporate visualizations created using Plotly, Seaborn or Matplotlib. The overall dashboard should feel cohesive, intuitive and aligned with the concerns of your chosen stakeholder group.

Beyond the visuals, your project should tell a story. You should explain your role, define your stakeholders, justify your choice of dataset and describe the questions guiding your exploration. As your dashboard unfolds, the narrative should guide stakeholders through the most important insights, emphasizing why these insights matter. Conclude with a brief reflection on limitations in the data and any recommendations that emerge from your analysis.

Your final submission will consist of your **Streamlit application** (send the link and show me in class) and a **short write-up** summarizing the role you adopted, the stakeholders you are serving and the main story your dashboard communicates. The emphasis is on clarity, insight and technical execution across the three visualization libraries.

You will be marked on your storytelling, the clarity and coherence of your narrative, and your ability to translate complex data into meaningful insights for your chosen stakeholders. The dashboard itself will be evaluated on its design quality, interactivity, and effective use of Streamlit and Plotly/Seaborn/Matplotlib. You should demonstrate thoughtful decisions about which visualizations best communicate each part of your story, and how the interface helps users understand the spread and impact of the virus. Your grade will also reflect the quality of your explanations, the depth of your analysis, and the relevance of your visual choices to the stakeholder needs you defined at the start.

The only acceptable grade for this assignment is 100/100. I will give you feedback in class and you will improve it until you get a 100.