Presented to the College of Computer Studies

Department of Software Technology

De La Salle University - Manila

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In partial fulfillment of the course

of Data Visualization (DATA101 S12)

Storyboard and Visualization Choices

Group 5

Submitted by:

Hernandez, Tedrick James B.

Latiph, Azeeza Ominsalam D.

Lim, Christopher G.

Ong, Phebe T.

Sonoy, Caleb James G.

Submitted to:

Ms. Unisse Chua

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Prototype Design

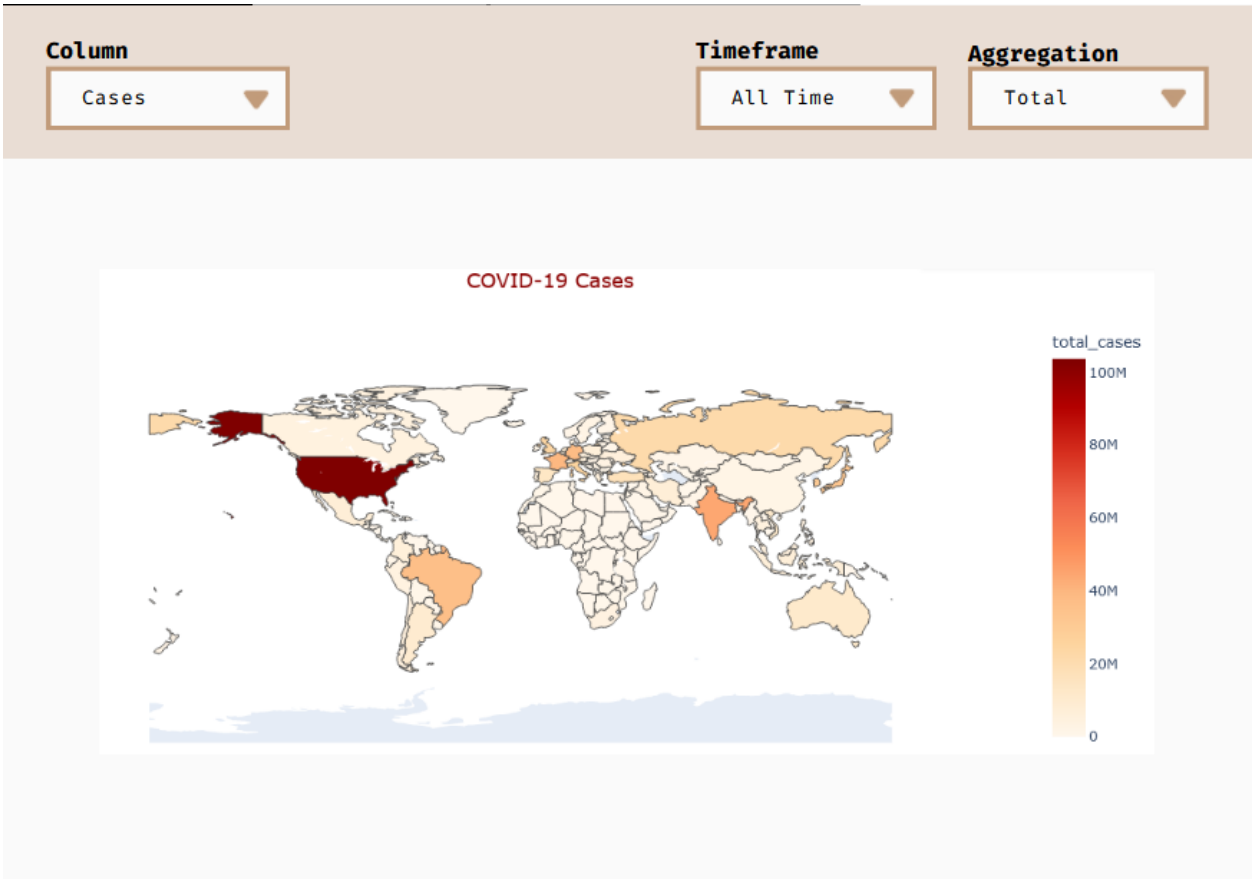
Metrics

The dashboard would like to help its users answer the question “Are people getting vaccinated with the COVID-19 vaccine?” and to be able to explore its implications in the context of the COVID-19 pandemic. Given this, the group will use the following metrics:

1. No. of Vaccinations
2. No. of Cases
3. No. of Deaths
4. No. of New Vaccinations
5. No. of New Cases
6. No. of New Deaths
7. No. of Vaccinated People
8. No. of Unvaccinated People

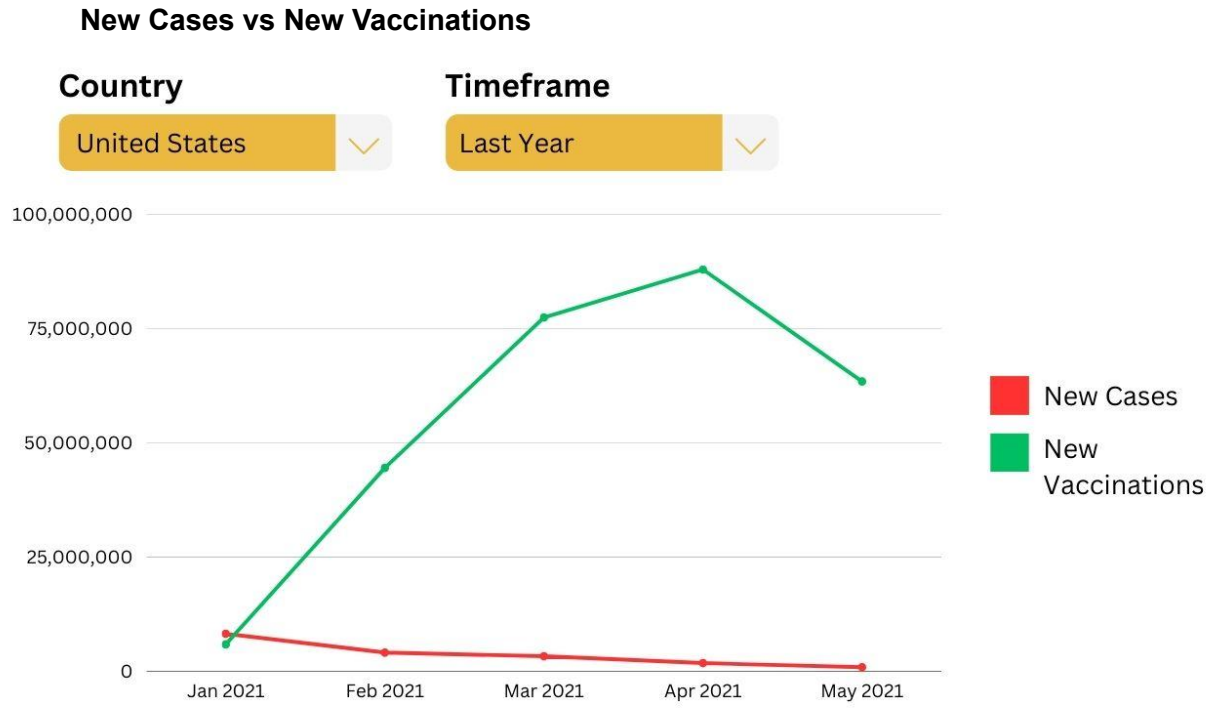
Visualization Choices

Choropleth Map



Idiom	Choropleth map (by Country)
Data	Data will be aggregated by country and 3 filters, namely column, timeframe, and type of aggregation.

	For column filter, 1 of the following column can be selected: ● Cases ● Deaths ● Vaccinations ● New Cases ● New Deaths ● New Vaccinations For time frame: ● All Time ● Past Year ● Past Month ● Past Week For aggregation: ● Total ● Yearly Average ● Monthly Average ● Weekly Average
Channels	To differentiate the magnitude of the values, the OrRd palette from Plotly Express will be utilized. It is a diverging palette from Orange to Red:  This is to distinguish values from country to country based on their values from: ● peach **[#fff7ec]** (minimum value); ● to light orange **[#fdcd97]**; ● to orange **[#fc8d59]** (middle value); ● to light red **[#da3825]**; ● to dark red **[#7f0000]** (maximum value)
Task	Summarize Features Main task and goal is to provide a visualization of the information for the audience. That way, it'll be easier for them to understand the data and gain insights from it.

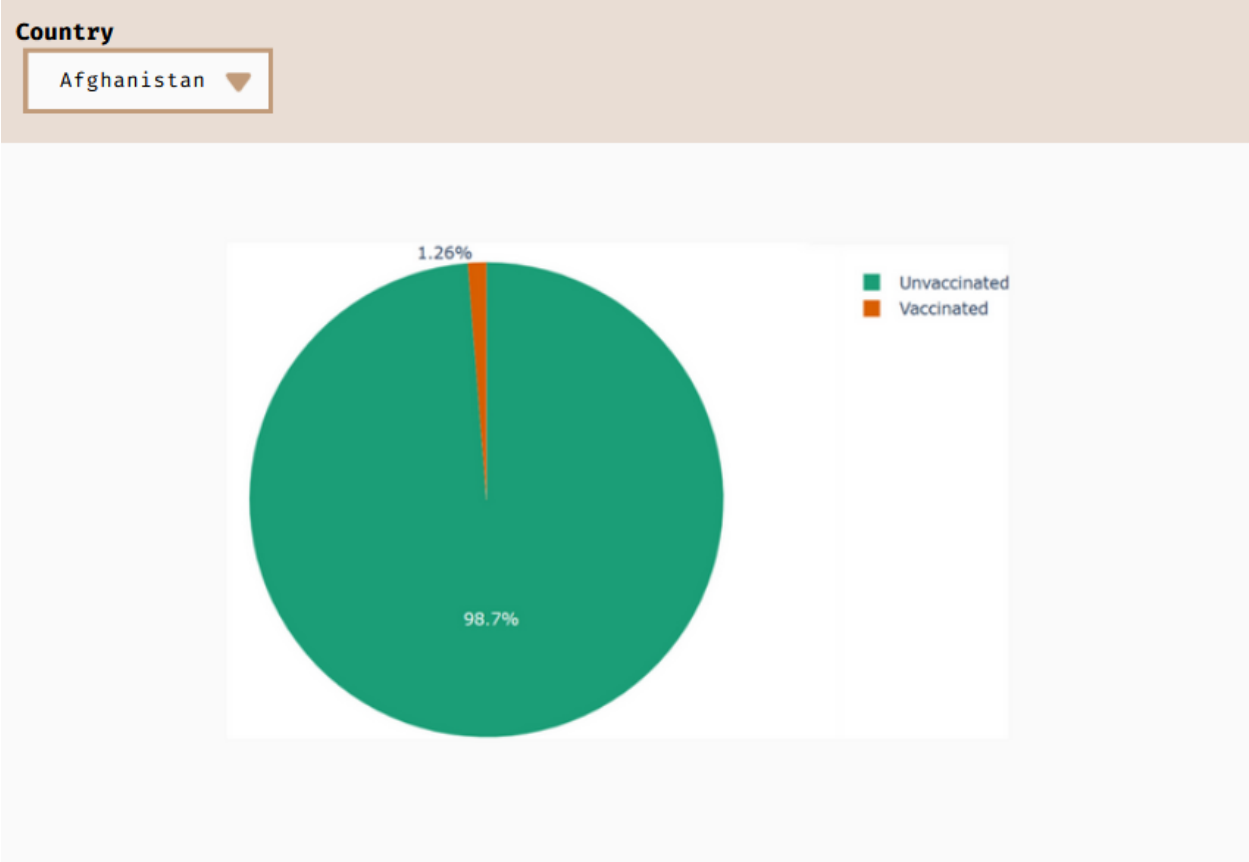


** In the final version, 'Last Year' would include up to 12 months in the x-axis.*

Idiom	Line Graph (trend via timeline per country)
Data	Data will be displayed per country using the new_cases, and new_vaccinations columns and then aggregated based on 2 filters: 'country' and 'timeframe'. The selections for 'country' include all of the featured countries in our datasets. The selections for 'timeframe' are as follows: - All time (Month + Year) - Past year (Month) - Past month (Weeks) ** In 'Past month,' the graph will show weeks instead of months.*
Channels	The x and y axis are labeled as follows: ● x-axis - Date ● y-axis - Number of New Cases / New Vaccinations There are only two variables. The following will be colored in the following to distinguish the New Cases and New Vaccinations: ● **#00EE00** (Green) - New Cases ● **#EE0000** (Red) - New Vaccinations
Task	Compare Trends

	The graph's primary task is to inform the viewer of the trends in new confirmed cases relative to new vaccinations – to visually and connotatively express the supposed 'inverse' relationship between the two (the more people are vaccinated, the less cases supposedly happen). This will inform people of the effect of vaccination and convince them to get vaccinated.

Ratio of Vaccinated and Unvaccinated per Country



Idiom	Pie Graph
Data	The selection per country will utilize all the countries featured in the Dataset. The ratio of vaccinated and unvaccinated people will be displayed per country as the values for the Pie Chart.
Channels	As there are only two variables, a contrasting color scheme will be used. The visualization uses the "Dark2" color sequence from Plotly Express.

	 Only the first two colors will be used as there are only two variables used in the pie chart. These colors are: Elf Green **[#1B9E77]** (Unvaccinated) Tenne **[#D95F02]** (Vaccinated)
Task	Compare Distribution The pie chart's goal is to show the ratio of vaccinated and unvaccinated people per country. The ratio of the two variables are of interest as they can point out to users of the dashboard which countries have a high rate of vaccination. In turn, they may like to explore other measurements such as total cases per country, total deaths per country, etc. in relation to the ratio of vaccination.

Chart Connection

Chart 1 (Line Graph) is connected to Chart 2 (Pie Graph) through the "Country" variable. So for example if Afghanistan is selected, both Chart 1 and 2 shows values only for Afghanistan. Chart 1 and 2 can also be compared based on the Vaccinations to gain more insight regarding status of Vaccinated/Unvaccinated ratio to newly vaccinated and COVID-19 cases.