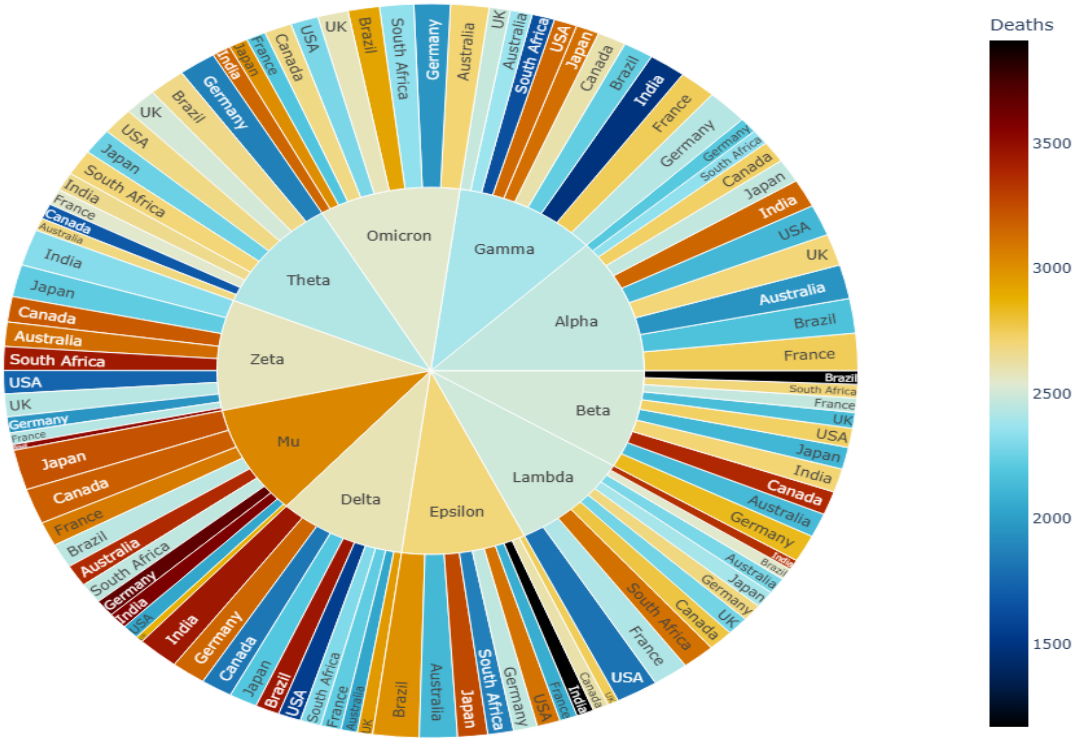
Goal:

The Dataset I am using primarily focus on how different COVID-19 variants spread across different countries and number of cases, deaths, recovered, hospitalized over a period. Considering the variants and countries in the dataset, I visualized this data in the form of sunburst map.

Visualization:



Insights:

- Chart Type: Sunburst chart
- Inner layer represents the COVID-19 variants which spread across different countries. Outer layers represents the countries which got impact from the variants.
- Black and deep red colors propose countries with high death rate whereas light colors and dark blue propose lower death rate.
- This chart has special animations to visualize specific variants and their deaths in the countries.

Data Abstraction:

This Dataset focusses on computing the total number of COVID-19 variants affected on different countries and identifies the number cases in that individual countries.

- Key Attributes:
    a) Variants: - These are the different viruses which occurred while affecting the world.
    b) Countries: - Countries which affected during the time.
    c) Cases and deaths: - Count of cases filled and number of deaths caused due to variants.
- Data Type:
    a) Categorical data.
    b) Numerical data.
- Categorical data:
    a) Variants.
    b) Countries.
- Numerical data:
    a) Number of cases.
    b) Number of deaths.

Task Abstraction:

The core mission of this visualization is reflected here in the form of summary of how different variants existed and which variant caused the more deaths with number of cases that raised in different countries.

- Marks :
    a) Area
- Channels :
    a) Color- Hue
    b) Shape- Round
    c) Motion

Data Source:

https://www.kaggle.com/datasets/imdevskp/corona-virus-report/data?select=country_wise_latest.csv

Code:

```
import pandas as pd
import plotly.express as px

#Load the dataset from a CSV file into a DataFrame
df=pd.read_csv('covid_variants_dataset.csv')

#Display the first 10 rows
df.head(10)

#Plot the Sunburst chart
fig=px.sunburst(df, path=['Variant','Country',], values='Cases',
                width=1000, height=800, color='Recovered',
                title="COVID-19 Variants Distribution by Variants and Country",
                color_continuous_scale='icefire')
fig.update_layout(title_x=0.5)
fig.show()
```