

# Task A2

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## 1 Dataset

### 1.1 Overview

The initial dataset consists of the GDP for each country from 1960s all the way to 2020. Here, I chose to focus instead on the GDP for each country in the year 2020 and show the distribution of GDP across countries instead. The data of interest is the following:

Field	Description	Data Type
Year	Financial Year	Integer
Rank	Rank of the country based on their total GDP	Integer (starting from 0)
Country	Name of country	String
State	The region/continent the country belongs to	String
GDP	The total amount of GDP for that year	Integer

This dataset is interesting in that it allows us to analyse the popularity and trends in the anime industry across many different years and seasons.

### 1.2 Data origin

<https://www.kaggle.com/datasets/holoong9291/gdp-of-all-countries19602020>

### 1.3 Github Repository

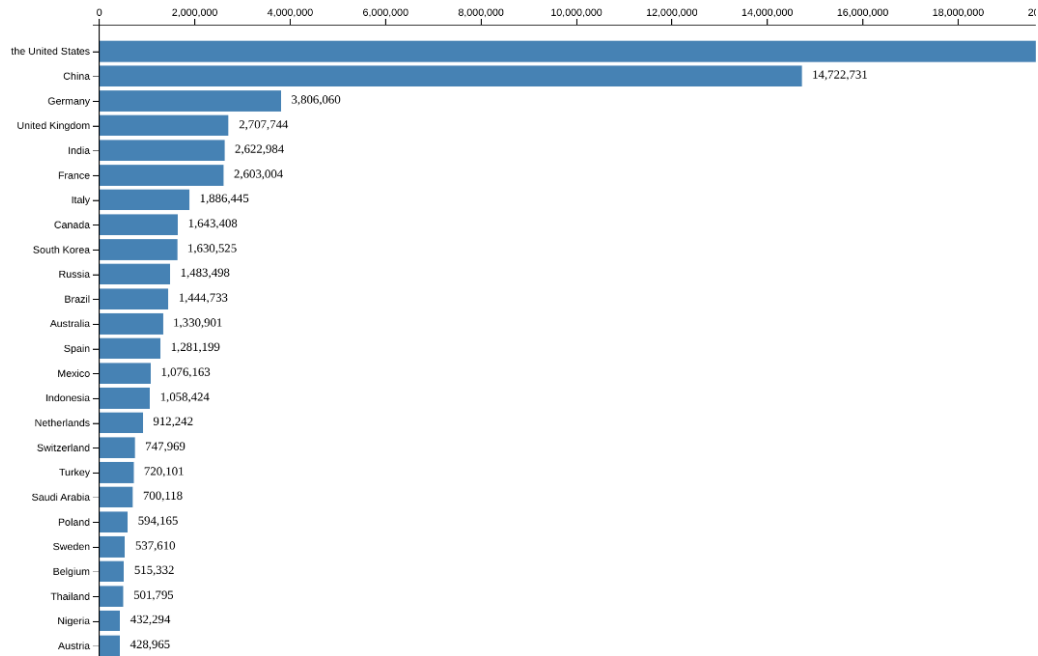
<https://github.com/bryanljx/visualisation>

## 2 Purpose of Visualisation

For this dataset, the query of interest is: “What is the distribution of GDP like across the countries? Which countries are the biggest/smallest financially in terms of total GDP?”

### 3 Visualisation

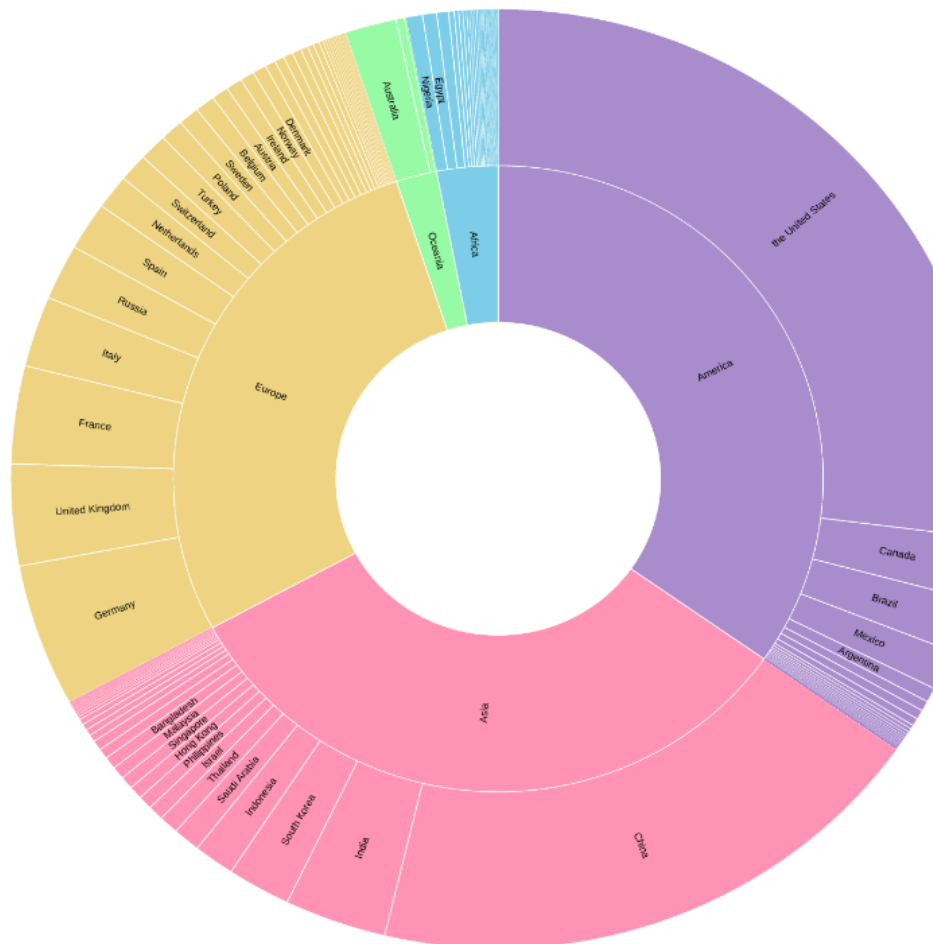
#### 3.1 GDP per country (in millions) in 2020



- A horizontal bar chart was chosen here to show the GDP per country
  - Note: The image was cut off slightly when saving to pdf/screenshot, please load and view the actual webpage instead.
- Visual encoding here includes:
  - Length - Denoting the total amount of GDP for that country in year 2020

### 3.2 Global Distribution of GDP

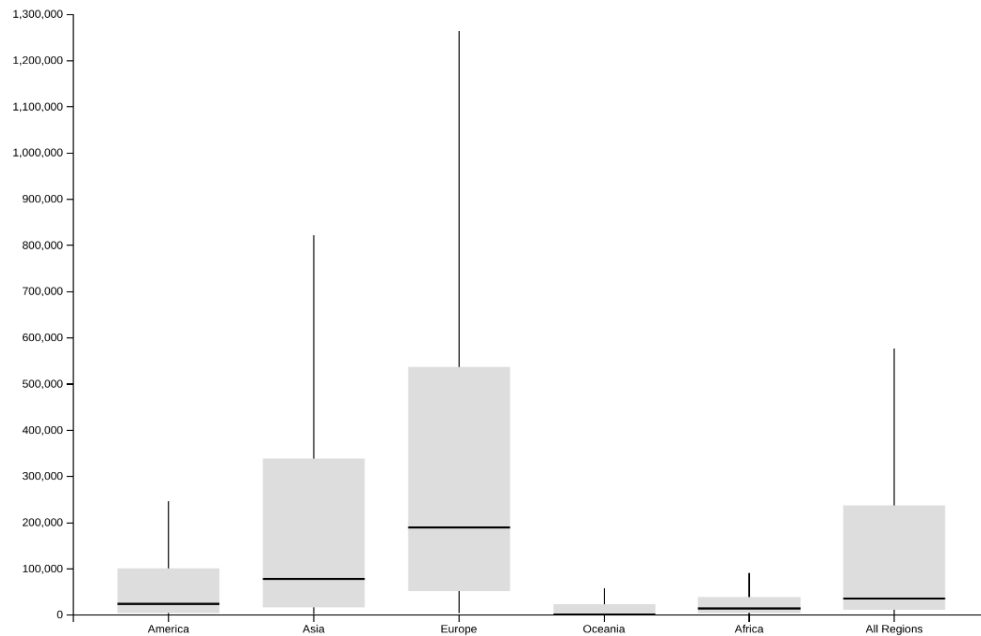
**Distribution of GDP in 2020**



- A sunburst chart was chosen to show both the distribution/percentages of GDP across the countries as well as across regions.
  - Note: The image was cut off slightly when saving to pdf/screenshot, please load and view the actual webpage instead.
- Visual encoding here includes:
  - Length - Denoting the percentage of total GDP globally that the country makes up
  - Color - Differentiating the regions
- Insights
  - From the chart, it is evident how United States and China alone makes up for approximately a third of the world's GDP.

### 3.3 Regional Distribution of GDP (in millions) in 2020

## Regional Distribution of GDP (in millions) in 2020



- A boxplot was chosen here to show the distribution/stats of GDP spread across various regions.
- Visual encoding here includes:
  - Position - Denoting the amount of GDP
- Insights
  - Of particular interest is that outliers aside, the region “America” does not actually do very well in spite of United States ranking first in terms of total GDP.
  - It is also quite fascinating to see that Europe fared the best when looking at median and the interquartile range.