

# 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

### 1.2 Data origin

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

### 1.3 Github Repository

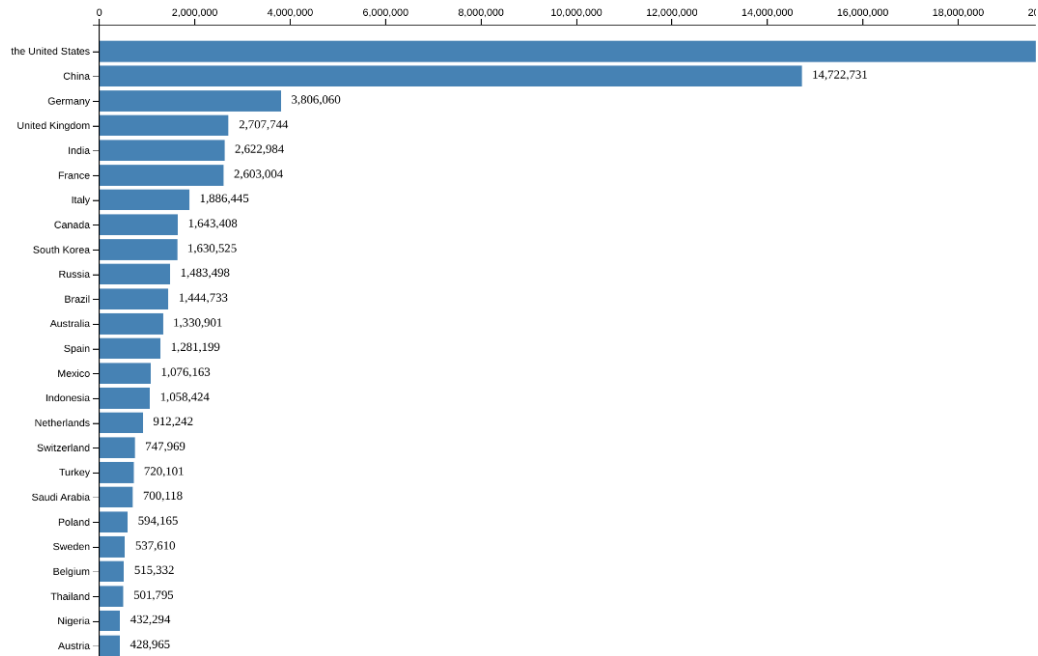
<https://github.com/bryanljx/visualisation>

## 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

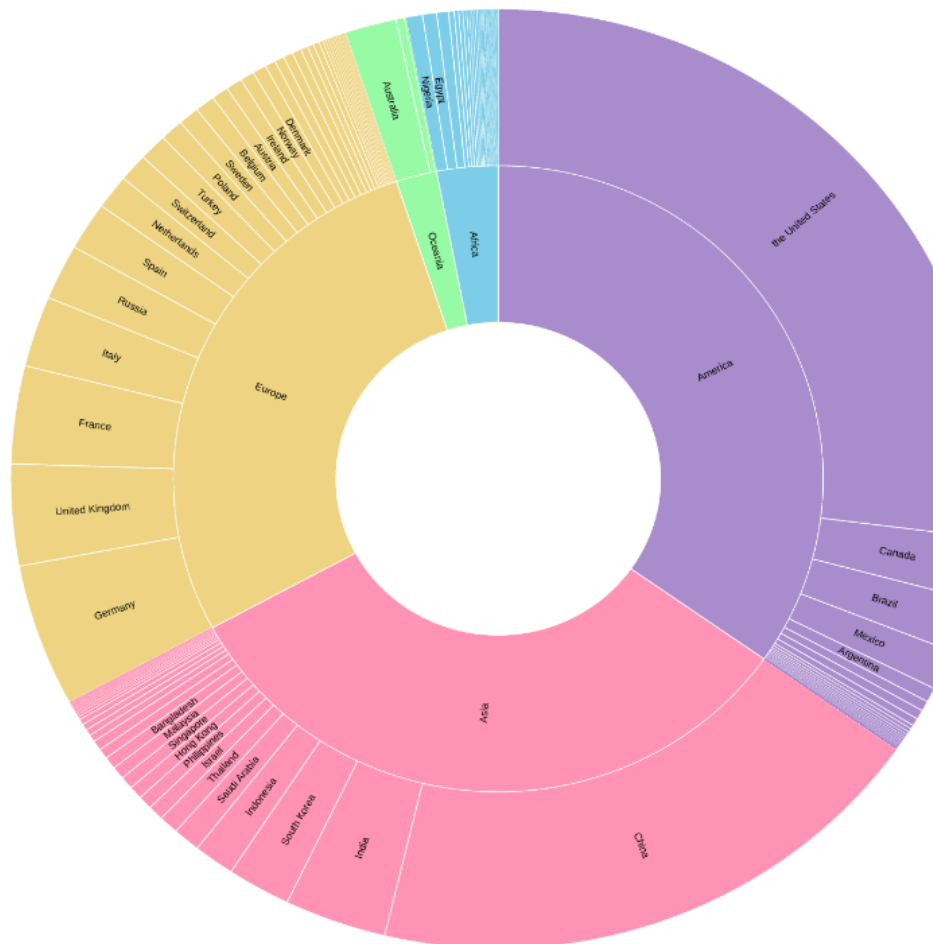
#### 3.1 GDP per country (in millions) in 2020



- 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

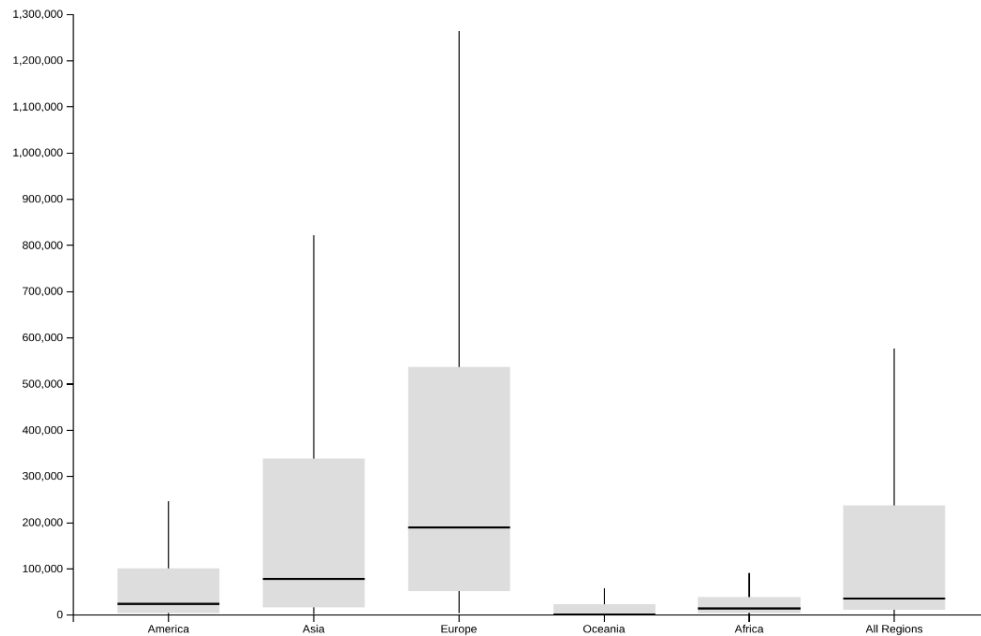
**Distribution of GDP in 2020**



- 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.