Presented by Abisola Onileimo
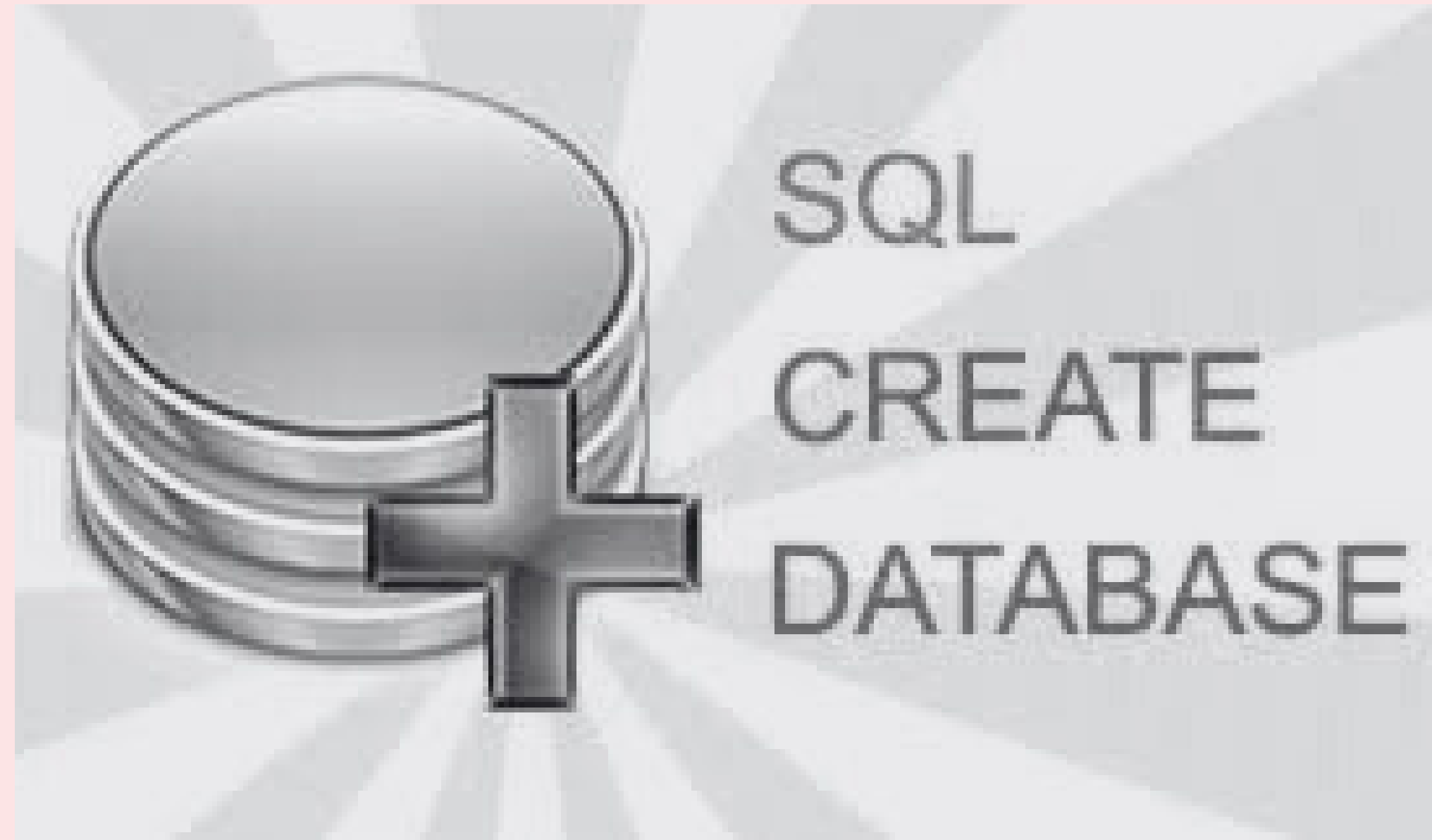
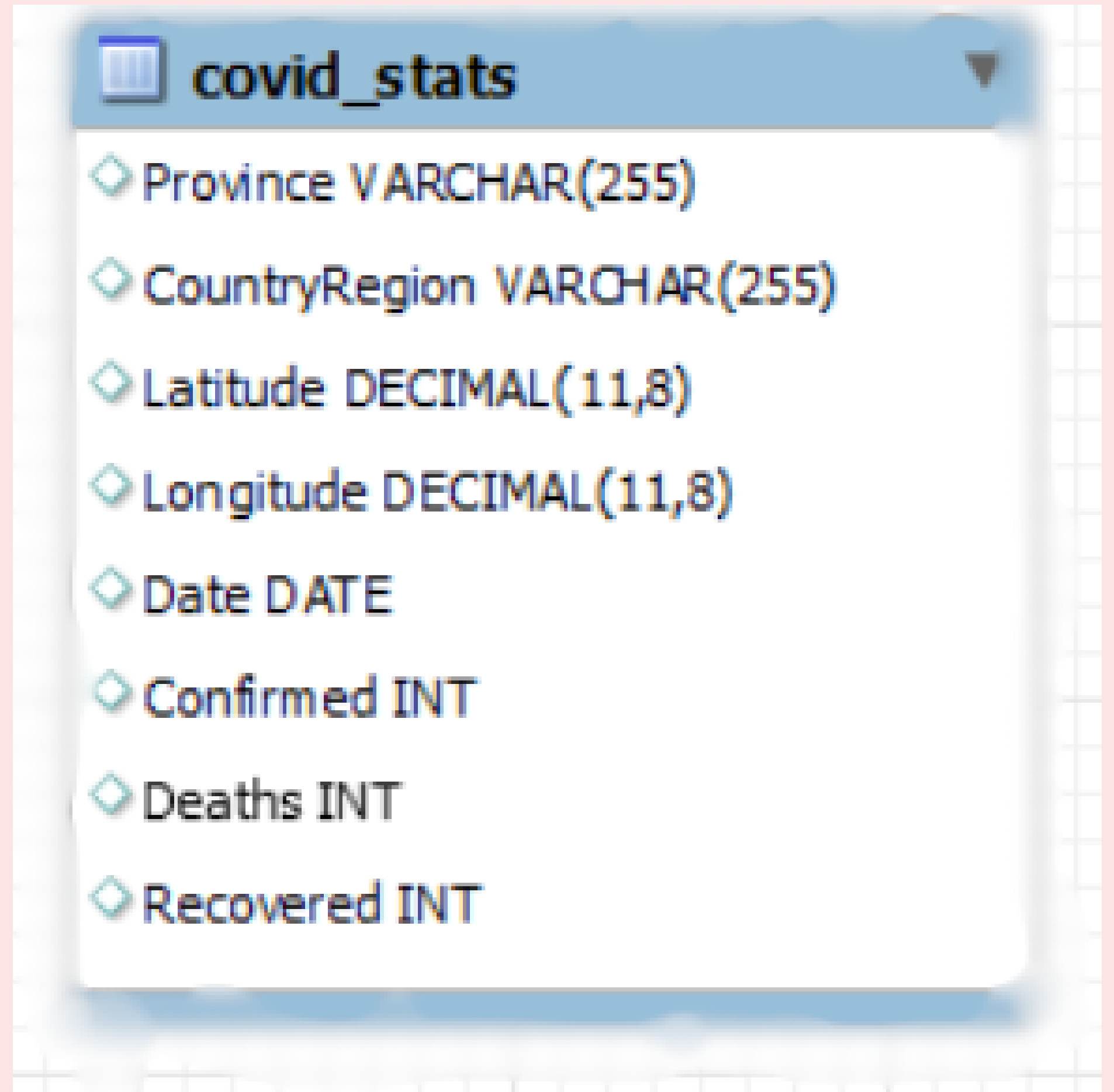# COVID-19

Database Design & Analysis

Database Design

The Covid_19 dataset was given in a csv format. A table needed to be created to load the data into a database
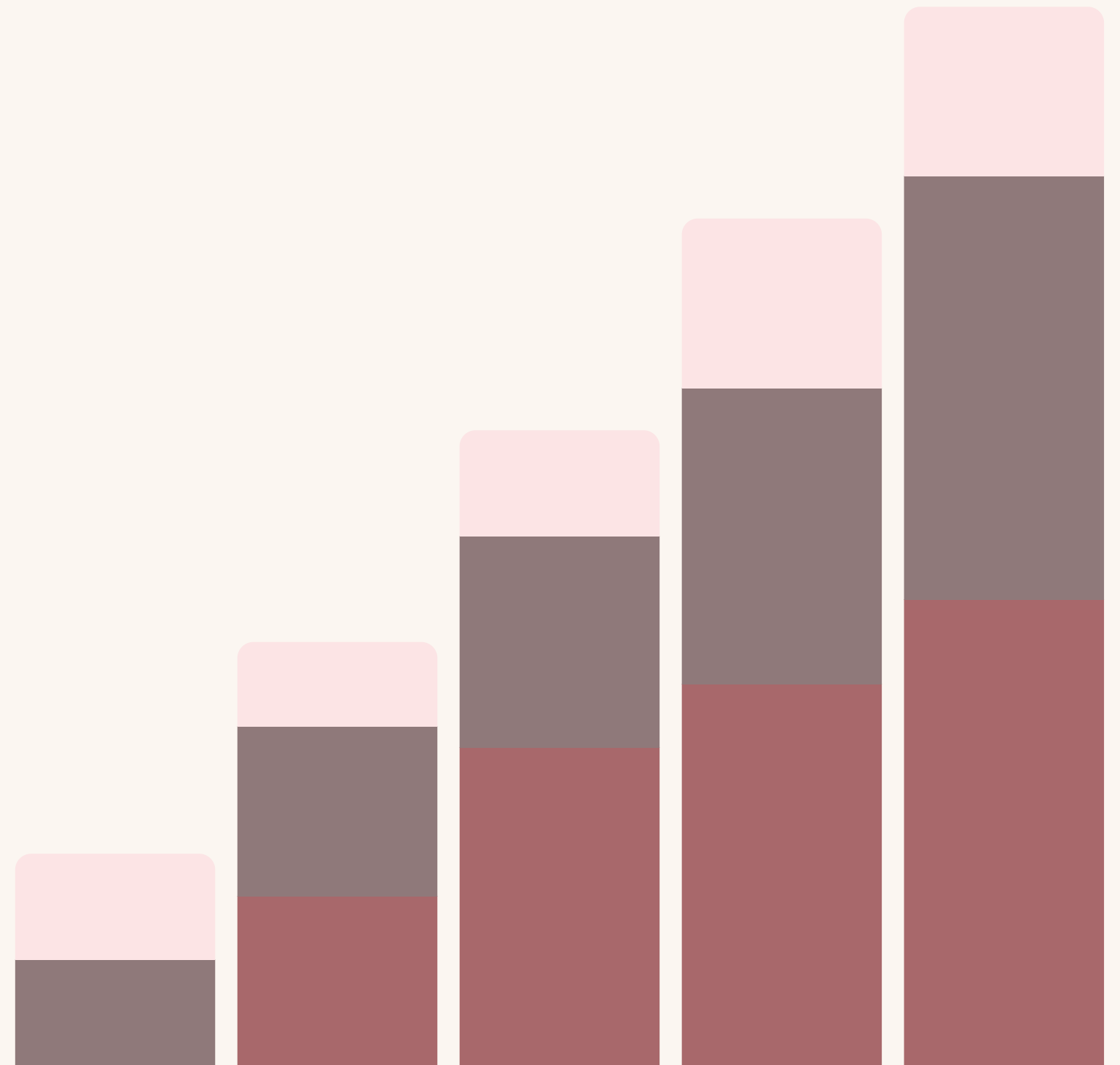
EER DIAGRAM

For Database design

covid_stats

◇ Province VARCHAR(255)

◇ CountryRegion VARCHAR(255)

◇ Latitude DECIMAL(11,8)

◇ Longitude DECIMAL(11,8)

◇ Date DATE

◇ Confirmed INT

◇ Deaths INT

◇ Recovered INT

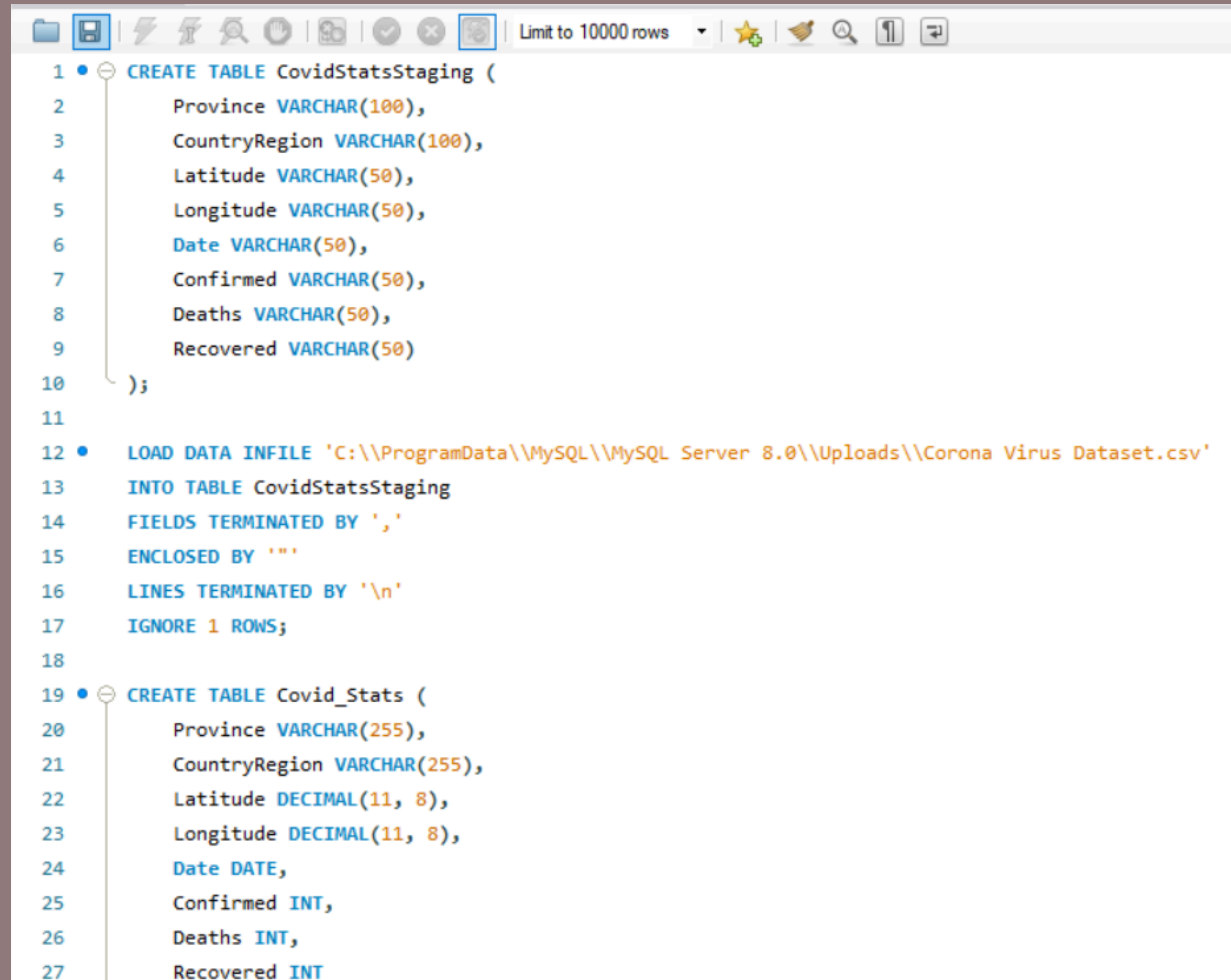# Methodology used in the analysis

- **SQL**
- **POWERBI**

**To analyze the data and provide insights to the covid-19 period**

Methods

A table was created using MySQL to load the csv format dataset as a database

```
 1 •  ⊖  CREATE TABLE CovidStatsStaging (
 2            Province VARCHAR(100),
 3            CountryRegion VARCHAR(100),
 4            Latitude VARCHAR(50),
 5            Longitude VARCHAR(50),
 6            Date VARCHAR(50),
 7            Confirmed VARCHAR(50),
 8            Deaths VARCHAR(50),
 9            Recovered VARCHAR(50)
10       );
11
12 •     LOAD DATA INFILE 'C:\\ProgramData\\MySQL\\MySQL Server 8.0\\Uploads\\Corona Virus Dataset.csv'
13       INTO TABLE CovidStatsStaging
14       FIELDS TERMINATED BY ','
15       ENCLOSED BY '"'
16       LINES TERMINATED BY '\n'
17       IGNORE 1 ROWS;
18
19 •  ⊖  CREATE TABLE Covid_Stats (
20            Province VARCHAR(255),
21            CountryRegion VARCHAR(255),
22            Latitude DECIMAL(11, 8),
23            Longitude DECIMAL(11, 8),
24            Date DATE,
25            Confirmed INT,
26            Deaths INT,
27            Recovered INT
```

Limit to 10000 rows
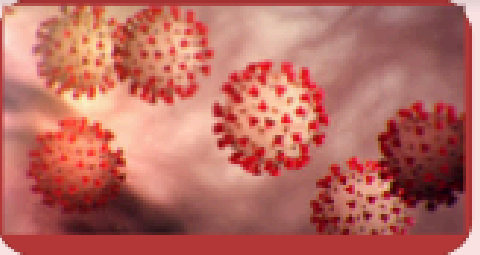
Analysis

COVID-19 ANALYSIS

Start Date	Total Deaths	Total Confirmed	Total Recovered	End Date
Thursday, January 02, 2020	4M	169M	113M	Monday, December 06, 2021

Top 5 Recovered Countries

100%

Turkey	1.123M
India	0.422M
Brazil	0.388M
US	0.150M
Colombia	0.090M

8%
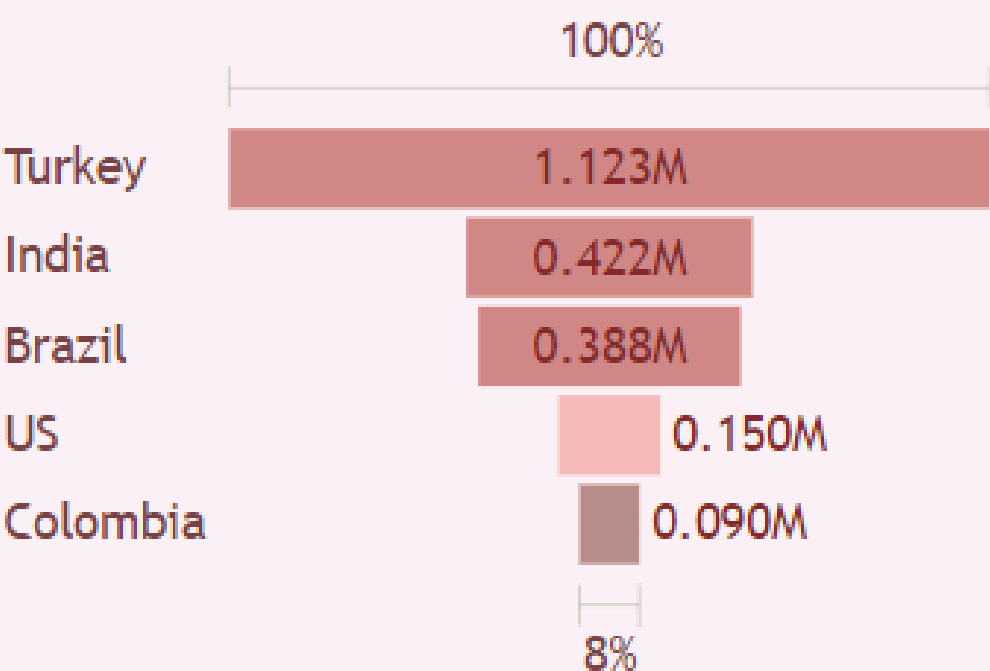
Highest Confirmed by Country

100%

Turkey	
India	414K
US	300K
France	118K
Brazil	100K
Spain	94K
United King...	68K
Germany	49K
Argentina	41K
Italy	41K

5%
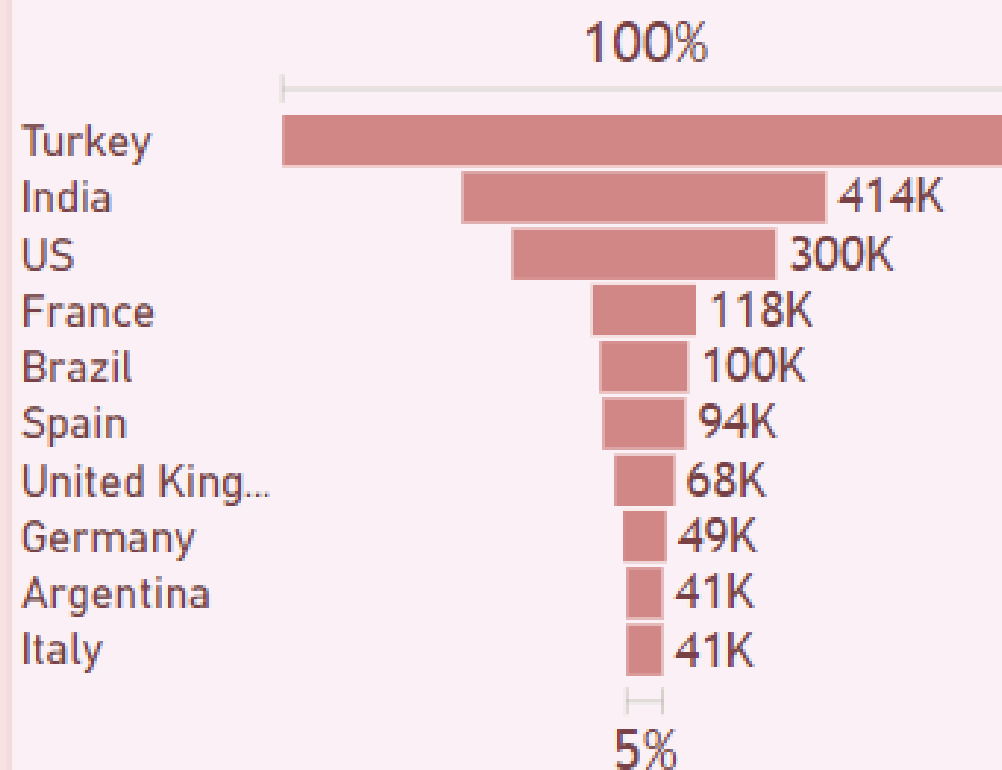
Highest Deaths by Country

100%

Argenti...	85K
Belgium	25K
Bolivia	16K
Banglad...	13K
Austria	11K

12.5%
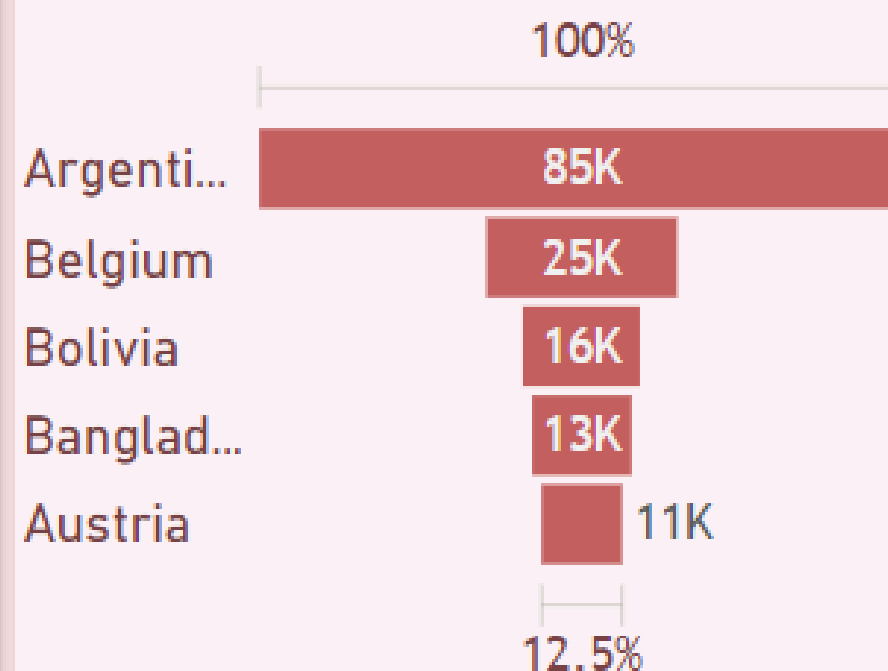
Countries with the Lowest Deaths

Afghanistan	0
Algeria	0
Argentina	0
Australia	0
Austria	0

Max Confirmed per year

414188 (33.47%)

YEAR
- 2020
- 2021

823225 (66.53%)

Max Deaths per year

3752 (34%)

YEAR
- 2021
- 2020

7374 (66%)

Max Recovered per year

422436 (27.33%)

YEAR
- 2020
- 2021

1123456 (72.67%)
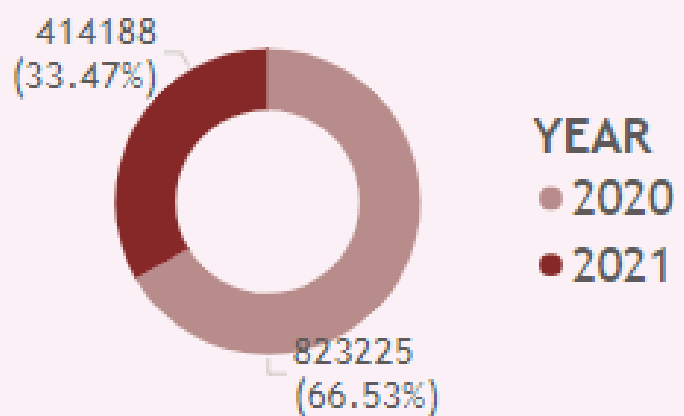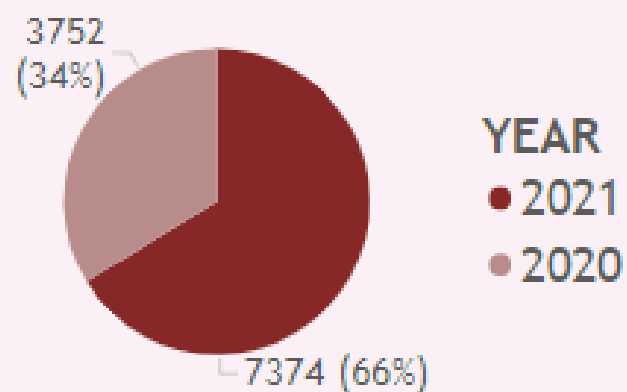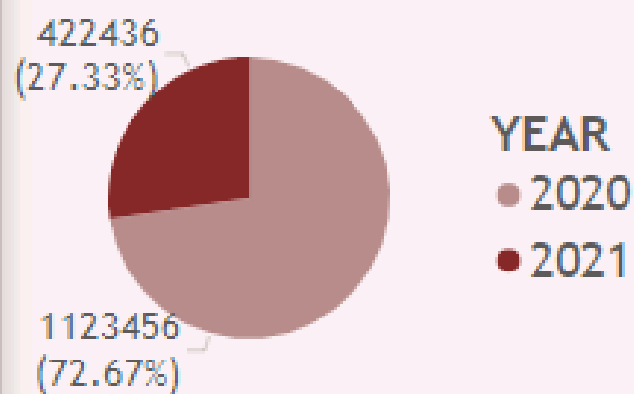
Deaths by Country/Region
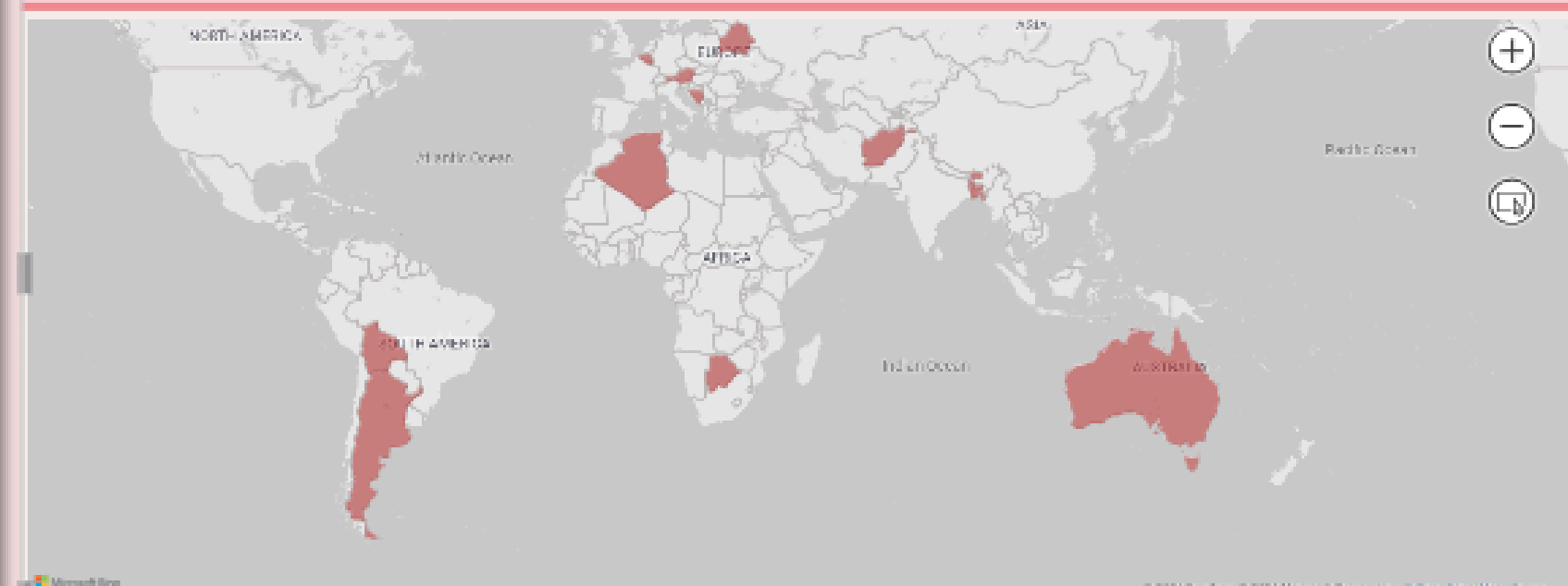
Insights generated:

Confirmed Cases

Total: 169,065,144

Average: 2,156.8283

Variance: 157,288,925.07796532

Stdev: 12,541.488152446875

Total Confirmed Cases: This is the total number of people who were diagnosed with COVID-19 worldwide.

The significant variance and standard deviation reflect a highly variable pattern in daily new cases, indicating that the number of new infections fluctuated greatly over time.

Insights generated:

Deaths

Total: 3,647,894

Average: 46.5376

Variance: 45,892.01885355753

Stdev: 214.22422564583476

The total number of deaths reveals a considerable loss of life due to the virus.

The substantial variance and standard deviation indicate that the daily death toll varied widely, with some days experiencing spikes in fatalities.

Recovered Cases

Total: 113,089,548

Average: 1,442.7264

Variance: 107,029,523.26229636

Stdev: 10,345.507395110999

The total number of recoveries is high, indicating many individuals have successfully recovered from the virus.

On average, approximately 1,443 recoveries were recorded daily.
The high variance and standard deviation show substantial daily variability in recovery number

In summary, these numbers shows us the impact of the COVID-19 on a global scale, showing how many people got infected, recovered, and sadly, died from the virus. They also show us how much these numbers can varied from day to day, giving us insights into the unpredictable nature of the pandemic.