

```
from google.colab import files
uploaded = files.upload()
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Saving Mahek Dataset.csv to Mahek Dataset.csv

```
# COVID-19 Global Trend Analysis
### Name: Mahek Shakil Shikalgar
```

```
## Objective
```

```
#To analyze the COVID-19 global case trends using the Kaggle dataset and visualize daily trends of confirmed, deaths, and recoveries.
```

```
## Dataset Description
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```
#- Dataset: Mahek_Dataset.csv
```

```
#- Source: Kaggle (Corona Virus Report)
```

```
#- Columns: `Province/State`, `Country/Region`, `Date`, `Confirmed`, `Deaths`, `Recovered`, `Active`, etc.
```

```
# Step 1: Import Required Libraries
```

```
import pandas as pd
```

```
import matplotlib.pyplot as plt
```

```
import seaborn as sns
```

```
import numpy as np
```

```
from datetime import datetime
```

```
%matplotlib inline
```

```
# Load the dataset
```

```
df = pd.read_csv('Mahek_Dataset.csv')
```

```
# Convert Date column to datetime format
```

```
df['Date'] = pd.to_datetime(df['Date'])
```

```
# Fill missing values
```

```
df.fillna(0, inplace=True)
```

```
# Preview
```

```
df.head()
```



	Province/State	Country/Region	Lat	Long	Date	Confirmed	Deaths	Recovered	Active	WHO Region
0	0	Afghanistan	33.93911	67.709953	2020-01-22	0	0	0	0	Eastern Mediterranean
1	0	Albania	41.15330	20.168300	2020-01-22	0	0	0	0	Europe
2	0	Algeria	28.03390	1.659600	2020-01-22	0	0	0	0	Africa
3	0	Andorra	42.50630	1.521800	2020-01-22	0	0	0	0	Europe
4	0	Angola	-11.20270	17.873900	2020-01-22	0	0	0	0	Africa

Next steps:

[Generate code with df](#)

[View recommended plots](#)

[New interactive sheet](#)

```
# Display the most recent date
```

```
latest_date = df['Date'].max()
```

```
print("Latest Date in Dataset:", latest_date)
```

```
# Show global totals for the latest date
```

```
df[df['Date'] == latest_date][['Confirmed', 'Deaths', 'Recovered', 'Active']].sum()
```



Latest Date in Dataset: 2020-07-27 00:00:00

0

Confirmed 16480485

Deaths 654036

Recovered 9468087

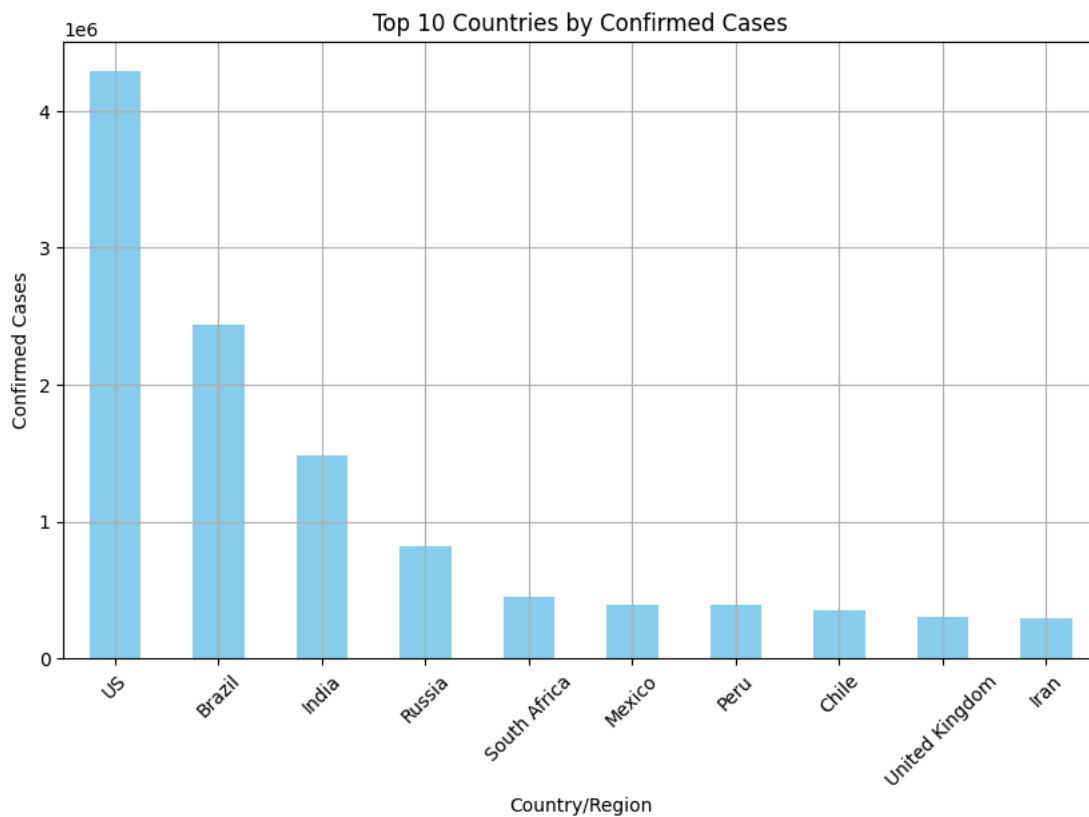
Active 6358362

dtype: int64

```
# Top countries by confirmed cases on latest date
```

```
top_countries = df[df['Date'] == latest_date].groupby('Country/Region')['Confirmed'].sum().sort_values(ascending=False).head(10)
```

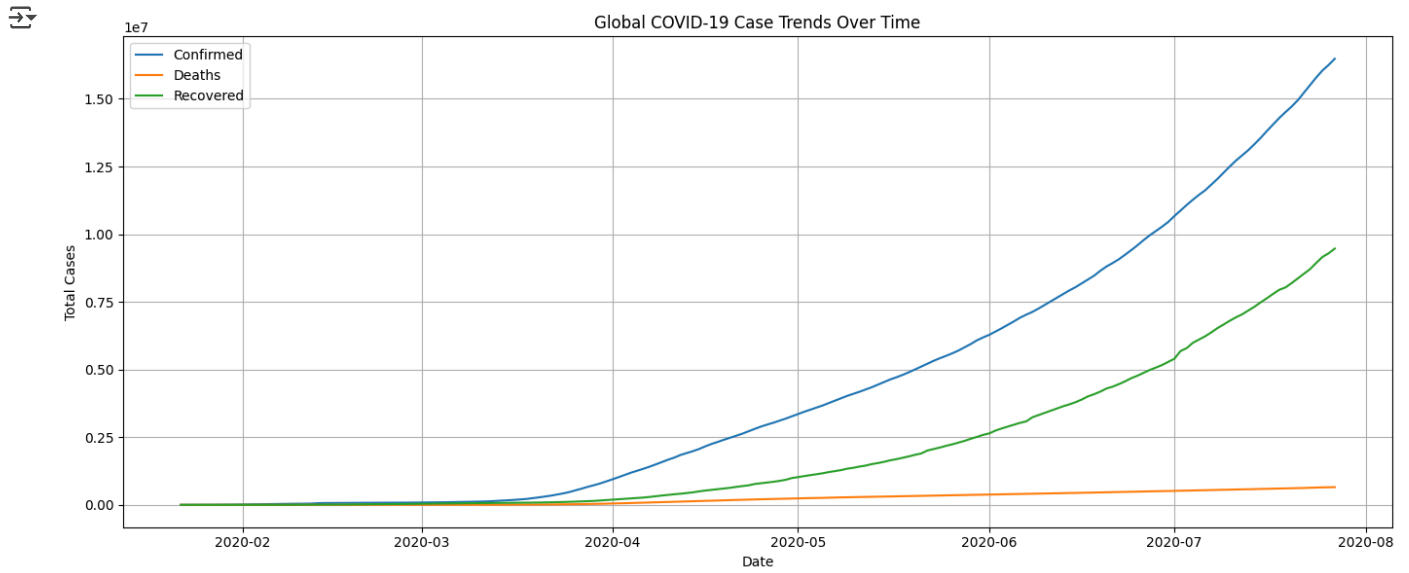
```
# Plot
top_countries.plot(kind='bar', figsize=(10,6), color='skyblue')
plt.title('Top 10 Countries by Confirmed Cases')
plt.ylabel('Confirmed Cases')
plt.grid(True)
plt.xticks(rotation=45)
plt.show()
```



```
# Summarize daily total cases
daily_trend = df.groupby('Date')[['Confirmed', 'Deaths', 'Recovered', 'Active']].sum()

# Plot daily trend
plt.figure(figsize=(14,6))
for col in ['Confirmed', 'Deaths', 'Recovered']:
    plt.plot(daily_trend[col], label=col)

plt.title('Global COVID-19 Case Trends Over Time')
plt.xlabel('Date')
plt.ylabel('Total Cases')
plt.legend()
plt.grid(True)
plt.tight_layout()
plt.show()
```



Conclusion

#- COVID-19 spread rapidly after early 2020.

#- The top affected countries include the US, India, and Brazil.

#- Visual trends help assess the impact and importance of timely global health responses.