Analysis of GDP countries

iNTRO:

GDP is a very popular and important subject today's regarding the knowing the developement of any country Because GDP help us to know the economy health of the country that how much country develope and also there are other factor as well to know the standard of living in country i.e. 1. NDP(Nominal domestic product),NNP(Nominal national product),Real GDP, PPP(purchasing power). Here we will cover this topic and try to analyse that why GDP matter and what factor at which GDP depends.

What is GDP and how to calculate?

> **Gross domestic product (GDP)** is a monetary measure of the market value of all the final goods and services produced and sold in a specific time period by a country or countries.GDP is most often used by the government of a single country to measure its economic health.

How to Calculate?

> GDP can be determined in three ways, all of which should, theoretically, give the same result. They are the
> production (or output or value added) approach, the income approach, and the speculated expenditure approach. It is representative of the total output and income within an economy

Components of GDP by expenditure.

`GDP (Y) is the sum of consumption (C), investment (I), government Expenditures (G) and net exports (X − M) .`

Y = C + I + G + (X − M)

Who Calculate GDP?

> **International standards :** The international standard for measuring GDP is contained in the book System of National Accounts (2008), which was prepared by representatives of the International Monetary Fund, European Union,
> Organisation for Economic Co-operation and Development, United Nations and World Bank. The publication is normally referred to as SNA2008 to distinguish it from the previous edition published in 1993 (SNA93) or 1968 (called SNA68).

- SNA2008 provides a set of rules and procedures for the measurement of national accounts. The standards are designed to be flexible, to allow for differences in local statistical needs and conditions.

> **National measurement :** Within each country GDP is normally measured by a national government statistical agency, as private sector organizations normally do not have access to the information required (especially information on expenditure and production by governments).

Package Install and Import

First, we will install and import necessary packages.

```
!pip install jovian --quiet --upgrade
```

```
import jovian
import pandas as  pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns

%matplotlib inline
import matplotlib
```

```
import jovian
jovian.commit(project='analysis-of-gdp-report')
```

```
[jovian] Updating notebook "devtiwari244/analysis-of-gdp-report" on https://jovian.com
[jovian] Committed successfully! https://jovian.com/devtiwari244/analysis-of-gdp-report
```

```
'https://jovian.com/devtiwari244/analysis-of-gdp-report'
```

- **Install opendatasets and download the data source**

```
!pip install opendatasets --quiet --upgrade
```

```
import opendatasets as od
```

```
dataset1='https://www.kaggle.com/datasets/ppb00x/country-gdp?select=countries.csv'
```

```
od.download(dataset1)
```

```
Please provide your Kaggle credentials to download this dataset. Learn more:
http://bit.ly/kaggle-creds
Your Kaggle username: devanandtiwari
Your Kaggle Key: ·····
Downloading country-gdp.zip to ./country-gdp
100%|████████████████████| 7.12k/7.12k [00:00<00:00, 5.59MB/s]
```

```
import os
```

```
data_dir='countries.csv'
```

```
import pandas as pd
```

- **Now use of the pandas for read the csv data and let's check the data how looks like.**

```
gdp_df = pd.read_csv('countries.csv')
```

```
gdp_df
```

	Rank	ID	Country	Continent	Population	IMF_GDP	UN_GDP	GDP_per_capita
0	1	840	United States	North America	339996.56	2.669515e+13	1.862448e+13	78515.94
1	2	156	China	Asia	1425671.35	2.186548e+13	1.121828e+13	15336.97
2	3	392	Japan	Asia	123294.51	5.291351e+12	4.936212e+12	42916.35
3	4	276	Germany	Europe	83294.63	4.564778e+12	3.477796e+12	54802.79
4	5	356	India	Asia	1428627.66	3.893670e+12	2.259642e+12	2725.46
...	...	...	...	...	...	...	...	...
207	208	729	Sudan	Africa	48109.01	0.000000e+00	8.288740e+10	1722.91
208	209	760	Syria	Asia	23227.01	0.000000e+00	2.216308e+10	954.19
209	210	788	Tunisia	Africa	12458.22	0.000000e+00	4.170356e+10	3347.47
210	211	796	Turks and Caicos Islands	North America	46.06	0.000000e+00	9.175505e+08	19919.90
211	212	804	Ukraine	Europe	36744.63	0.000000e+00	9.327035e+10	2538.34

212 rows × 8 columns

Data preparation and cleaning

```
gdp_df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 212 entries, 0 to 211
Data columns (total 8 columns):
 #   Column          Non-Null Count  Dtype  
---  ------          --------------  -----  
 0   Rank            212 non-null    int64  
 1   ID              212 non-null    int64  
 2   Country         212 non-null    object 
 3   Continent       212 non-null    object 
 4   Population      212 non-null    float64
 5   IMF_GDP         212 non-null    float64
 6   UN_GDP          212 non-null    float64
 7   GDP_per_capita  212 non-null    float64
dtypes: float64(4), int64(2), object(2)
memory usage: 13.4+ KB
```

> Before moving for EDA in this GDP data there are no columns that contain null values so that we can go forward.

```
gdp_df.nunique()
```

```
Rank              212
ID                212
Country           212
Continent           6
Population        212
IMF_GDP           188
UN_GDP            211
GDP_per_capita    212
dtype: int64
```

```
gdp_G_df= gdp_df.groupby('Continent')[['Country']].count()
gdp_G_df
```

Continent	Country
Africa	54
Asia	45
Europe	50

Continent	Country
North America	34
Oceania	17
South America	12

> Here we can check this the unique value like there `212 countries and 6 Continent` .

```
gdp_df.columns
```

```
Index(['Rank', 'ID', 'Country', 'Continent', 'Population', 'IMF_GDP', 'UN_GDP',
       'GDP_per_capita'],
      dtype='object')
```

Data sorting,preparing and analysing in multiple mode.

Let's check top 10 countries IMF GDP wise.

- which countries are in top 10 worldwide.

```
gdp_wrank_df= gdp_df.sort_values('IMF_GDP',ascending = False).head(10)
```

```
gdp_wrank_df
```

	Rank	ID	Country	Continent	Population	IMF_GDP	UN_GDP	GDP_per_capita
0	1	840	United States	North America	339996.56	2.669515e+13	1.862448e+13	78515.94
1	2	156	China	Asia	1425671.35	2.186548e+13	1.121828e+13	15336.97
2	3	392	Japan	Asia	123294.51	5.291351e+12	4.936212e+12	42916.35
3	4	276	Germany	Europe	83294.63	4.564778e+12	3.477796e+12	54802.79
4	5	356	India	Asia	1428627.66	3.893670e+12	2.259642e+12	2725.46
5	6	826	United Kingdom	Europe	67736.80	3.686935e+12	2.647899e+12	54430.31
6	7	250	France	Europe	64756.58	3.086226e+12	2.465454e+12	47658.88
7	8	124	Canada	North America	38781.29	2.362318e+12	1.529760e+12	60913.86
8	9	380	Italy	Europe	58870.76	2.169384e+12	1.858913e+12	36849.94
9	10	76	Brazil	South America	216422.45	1.980483e+12	1.795926e+12	9151.01

Now Let's check top 10 countries population wise.

```
gdp_Prank_df = gdp_df.sort_values('Population',ascending=False).head(10)
```

```
gdp_Prank_df
```

	Rank	ID	Country	Continent	Population	IMF_GDP	UN_GDP	GDP_per_capita
4	5	356	India	Asia	1428627.66	3.893670e+12	2.259642e+12	2725.46
1	2	156	China	Asia	1425671.35	2.186548e+13	1.121828e+13	15336.97
0	1	840	United States	North America	339996.56	2.669515e+13	1.862448e+13	78515.94
15	16	360	Indonesia	Asia	277534.12	1.410748e+12	9.322592e+11	5083.15
205	206	586	Pakistan	Asia	240485.66	0.000000e+00	2.825060e+11	1174.73
25	26	566	Nigeria	Africa	223804.63	5.801210e+11	4.046491e+11	2592.09
9	10	76	Brazil	South America	216422.45	1.980483e+12	1.795926e+12	9151.01
39	40	50	Bangladesh	Asia	172954.32	4.384360e+11	2.208367e+11	2534.98
13	14	643	Russia	Europe	144444.36	1.713154e+12	1.246015e+12	11860.30
16	17	484	Mexico	North America	128455.57	1.379727e+12	1.076914e+12	10740.89

> **Here we can see that india is on 1st and china on 2nd place population wise.**

Now let's check the top 10 countries GDP per capita wise.

```
gdp_GPC_df = gdp_df.sort_values('GDP_per_capita',ascending = False).head(10)
```

```
gdp_GPC_df
```

	Rank	ID	Country	Continent	Population	IMF_GDP	UN_GDP	GDP_per_capita
200	201	492	Monaco	Europe	36.30	0.000000e+00	6.468001e+09	178196.57
199	200	438	Liechtenstein	Europe	39.58	0.000000e+00	6.193678e+09	156469.22
68	69	442	Luxembourg	Europe	654.77	9.177300e+10	5.863132e+10	140161.10
27	28	372	Ireland	Europe	5056.94	5.621340e+11	3.048190e+11	111161.01
20	21	756	Switzerland	Europe	8796.67	8.881990e+11	6.688513e+11	100969.92
29	30	578	Norway	Europe	5474.36	5.497330e+11	3.710689e+11	100419.59
188	189	60	Bermuda	North America	64.07	0.000000e+00	6.127341e+09	95636.59
52	53	634	Qatar	Asia	2716.39	2.283560e+11	1.524519e+11	84065.95
106	107	352	Iceland	Europe	375.32	2.947600e+10	2.026966e+10	78536.07
0	1	840	United States	North America	339996.56	2.669515e+13	1.862448e+13	78515.94

> **Here we can see this where population is less where GDP per capita is good and also in this mostly countries are from Europe it's mean europian countries life style is good.**

Exploratory Analysis and visualization

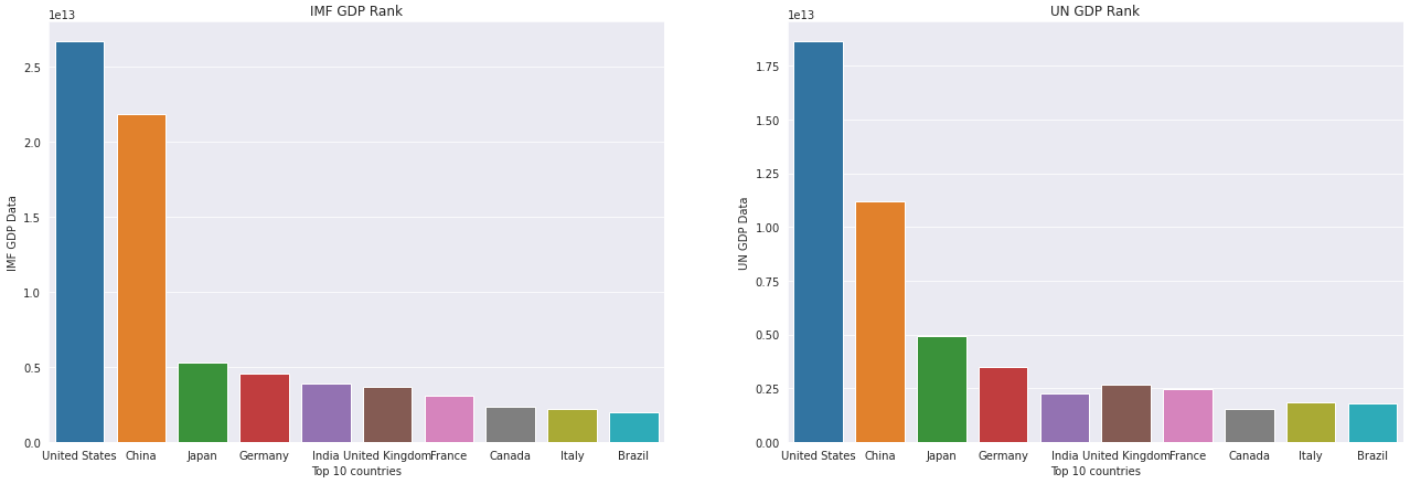
> Now we will explore the analysis from visualization way now we are going to check the top 10 countries in GDP world wise after then we will check the GDP rank as per IMF and UN report.Also here we wil know about GDP and GNI also as per EDA we will cover in second phase top 5 countries continetal wise and many more we will analyse let's begin.

Top 10 Countries GDP wise.

```
sns.set_style('darkgrid')
```

```
plt.figure(figsize=(15,7))
fig,ax=plt.subplots(1,2,figsize=(22,7))

g1=sns.barplot(x='Country',y='IMF_GDP',data= gdp_wrank_df,ax=ax[0]);
g1.set_title("IMF GDP Rank")
g1.set_xlabel("Top 10 countries")
g1.set_ylabel("IMF GDP Data");

g2=sns.barplot(x='Country',y='UN_GDP',data=gdp_wrank_df,ax=ax[1]);
g2.set_title("UN GDP Rank")
g2.set_xlabel("Top 10 countries")
g2.set_ylabel("UN GDP Data");
```

```
<Figure size 1080x504 with 0 Axes>
```



InSights

> Here we can analyse that the GDP data differences b/w the IMF and UN GDP report as per the analysis both reports vary each other but the rank show's same which is clear that show's countries are Top 10 world GDP countries.
> Here Top 2 countries US and China are the developed countries and the both countries are very far from other countries whose GDP's are Higher than the other countries it's mean for other country need to more developement as well need to take more steps like need to increse production within country, Expand Trade as well other major factors for increase their GDP.

Difference b/w GDP and GNI

GDP can be contrasted with gross national product (GNP) or, as it is now known, gross national income (GNI). The difference is that GDP defines its scope according to location, while GNI defines its scope according to ownership. In a global context, world GDP and world GNI are, therefore, equivalent terms.

- **GDP is product produced within a country's borders; GNI is product produced by enterprises owned by a country's citizens.**

Top 5 Countries continental wise

- Now Here we will analyse that the top 5 contries continental wise to check which countries are at top in their continent also we will check what factors are important for GDP growth and why GDP matter let's begin.
- Now we will analyse the GDP data continental wise in which we will apply the pandas for sorting.

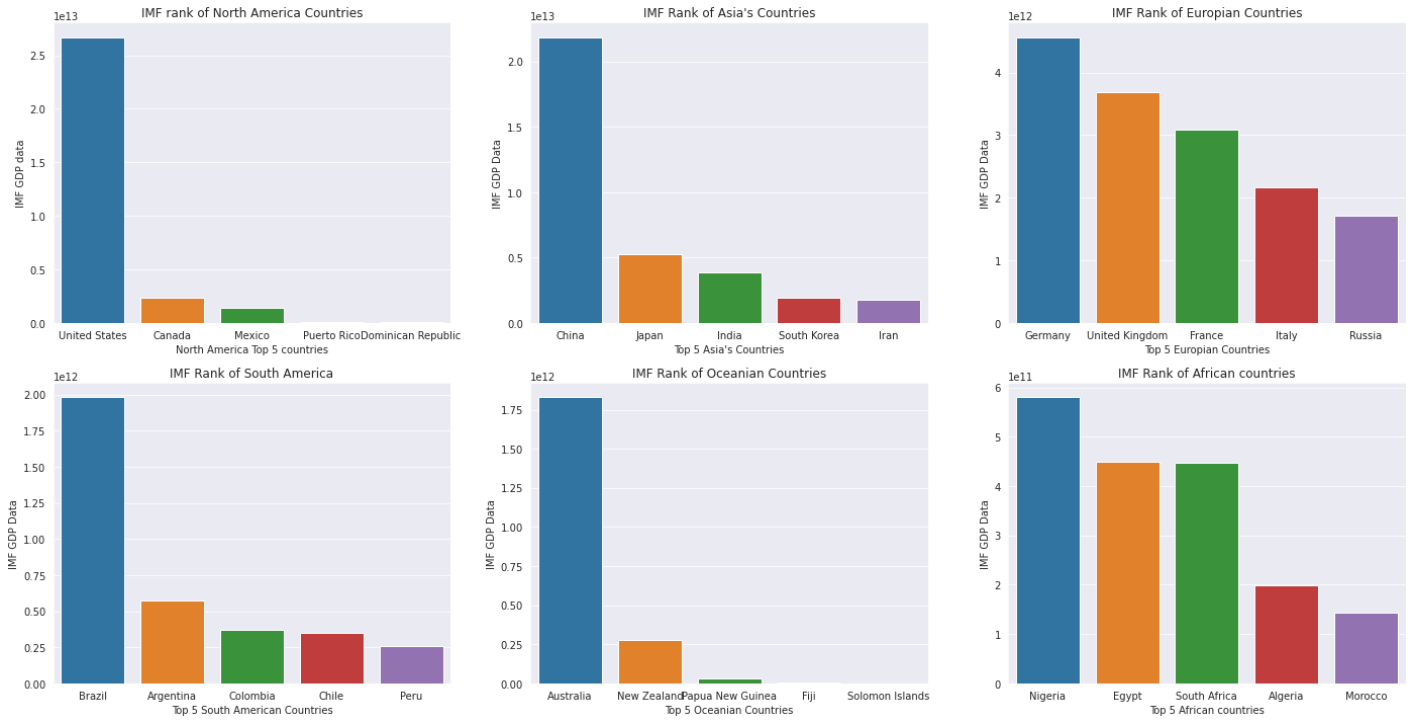
```
gdp_df.Continent.unique()
```

```
array(['North America', 'Asia', 'Europe', 'South America', 'Oceania',
       'Africa'], dtype=object)
```

```
gdp_NA_df= gdp_df[gdp_df['Continent']=="North America"].copy()
gdp_A_df= gdp_df[gdp_df['Continent']=="Asia"].copy()
gdp_E_df= gdp_df[gdp_df['Continent']=="Europe"].copy()
gdp_SA_df= gdp_df[gdp_df['Continent']=="South America"].copy()
gdp_Oc_df= gdp_df[gdp_df['Continent']=="Oceania"].copy()
gdp_Af_df= gdp_df[gdp_df['Continent']=="Africa"].copy()
```

```
fig,ax=plt.subplots(2,3,figsize=(24,12))

g1= sns.barplot(x='Country',y='IMF_GDP',data=gdp_NA_df.head(5),ax=ax[0,0])
g1.set_title("IMF rank of North America Countries")
g1.set_xlabel("North America Top 5 countries")
g1.set_ylabel("IMF GDP data")

g2= sns.barplot(x='Country',y='IMF_GDP',data=gdp_A_df.head(5),ax=ax[0,1])
g2.set_title("IMF Rank of Asia's Countries")
g2.set_xlabel("Top 5 Asia's Countries")
g2.set_ylabel("IMF GDP Data")

g3=sns.barplot(x='Country',y='IMF_GDP',data=gdp_E_df.head(5),ax=ax[0,2])
g3.set_title("IMF Rank of Europian Countries")
g3.set_xlabel("Top 5 Europian Countries")
g3.set_ylabel("IMF GDP Data")

g4=sns.barplot(x='Country',y='IMF_GDP',data=gdp_SA_df.head(5),ax=ax[1,0])
g4.set_title("IMF Rank of South America")
```

```
g4.set_xlabel("Top 5 South American Countries")
g4.set_ylabel("IMF GDP Data")

g5=sns.barplot(x="Country",y="IMF_GDP",data=gdp_Oc_df.head(5),ax=ax[1,1])
g5.set_title("IMF Rank of Oceanian Countries")
g5.set_xlabel("Top 5 Oceanian Countries")
g5.set_ylabel("IMF GDP Data")

g6=sns.barplot(x='Country',y='IMF_GDP',data=gdp_Af_df.head(5),ax=ax[1,2])
g6.set_title("IMF Rank of African countries")
g6.set_xlabel("Top 5 African countries")
g6.set_ylabel("IMF GDP Data");
```



InSights

> Here we saw that the Top 5 countries from every continent as per IMF GDP Rank in which Europian countries are good in GDP than other continental countries also the reason behind analyse this that which countries are in competition in their continent. If we talk about in Asia Japan and India are in competition, in South America Colombia and Chile are in competition and in Africa Egypt and South Africa are in competition for economic Growth this growth competition is important for every countries so that every country will be able to provide a well life style in their citizen.

Top 5 Countries in GDP per Capita Continental Wise

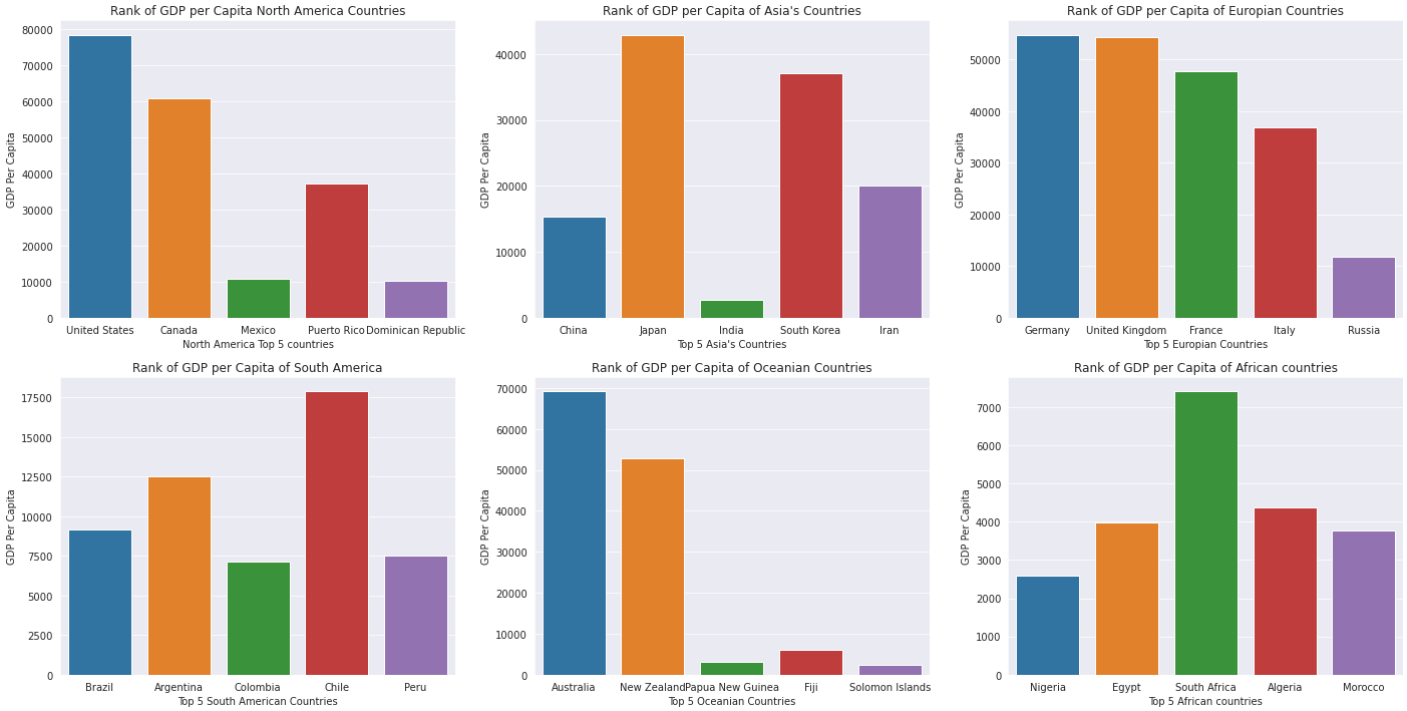
GDP per Capita?

> The ratio of GDP to the total population of the region is the per capita GDP (also called the Mean Standard of Living).

> Due to GDP complex and subjective nature, this measure is often revised before being considered a reliable indicator. GDP (nominal) per capita does not, however, reflect differences in the cost of living and the inflation rates of the countries; therefore, using a basis of GDP per capita at purchasing power parity (PPP) may be more useful when comparing living standards between nations, while nominal GDP is more useful comparing national economies on the international market. Total GDP can also be broken down into the contribution of each industry or sector of the economy.

```
plt.figure(figsize=(16,8))

fig,ax=plt.subplots(2,3,figsize=(24,12))

g1= sns.barplot(x='Country',y='GDP_per_capita',data=gdp_NA_df.head(5),ax=ax[0,0])
g1.set_title("Rank of GDP per Capita North America Countries")
g1.set_xlabel("North America Top 5 countries")
g1.set_ylabel("GDP Per Capita")

g2= sns.barplot(x='Country',y='GDP_per_capita',data=gdp_A_df.head(5),ax=ax[0,1])
g2.set_title("Rank of GDP per Capita of Asia's Countries")
g2.set_xlabel("Top 5 Asia's Countries")
g2.set_ylabel("GDP Per Capita")

g3=sns.barplot(x='Country',y='GDP_per_capita',data=gdp_E_df.head(5),ax=ax[0,2])
g3.set_title("Rank of GDP per Capita of Europian Countries")
g3.set_xlabel("Top 5 Europian Countries")
g3.set_ylabel("GDP Per Capita")

g4=sns.barplot(x='Country',y='GDP_per_capita',data=gdp_SA_df.head(5),ax=ax[1,0])
g4.set_title("Rank of GDP per Capita of South America")
g4.set_xlabel("Top 5 South American Countries")
g4.set_ylabel("GDP Per Capita")

g5=sns.barplot(x="Country",y="GDP_per_capita",data=gdp_Oc_df.head(5),ax=ax[1,1])
g5.set_title("Rank of GDP per Capita of Oceanian Countries")
g5.set_xlabel("Top 5 Oceanian Countries")
g5.set_ylabel("GDP Per Capita")

g6=sns.barplot(x='Country',y='GDP_per_capita',data=gdp_Af_df.head(5),ax=ax[1,2])
g6.set_title("Rank of GDP per Capita of African countries")
g6.set_xlabel("Top 5 African countries")
g6.set_ylabel("GDP Per Capita");
```

```
<Figure size 1152x576 with 0 Axes>
```



InSights

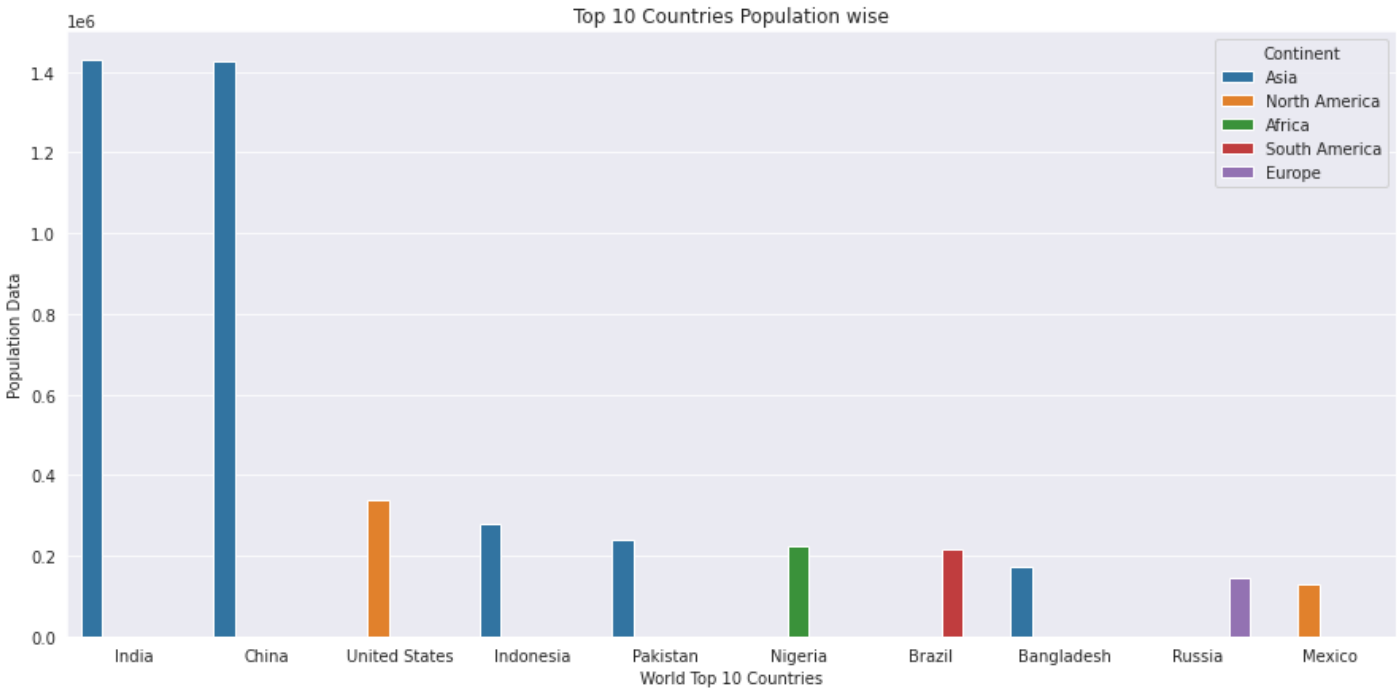
> Here we can saw this clearly that most of the countries which are on top in GDP but here at bottom this show that most of the country is not well in economy or not provide a well life style to their citizens because in GDP per Capita population matters because if population will more then where citizens are fight for well life style instead where population is less there citizens have good life style we can saw this in every continental country in North America mexico Gdp per capita is low but GDP is better. if we talk about Asia India GDP is good but GDP per Capita is not good compare to other countries so that for a country this is very important to control population as well provide a better life style..

Let's check that population matter in GDP per Capita (Standard living)

> **Now we'll check that the top 10 countries in population world wide and after than we will compare to the GDP per Capita(Standard living).**

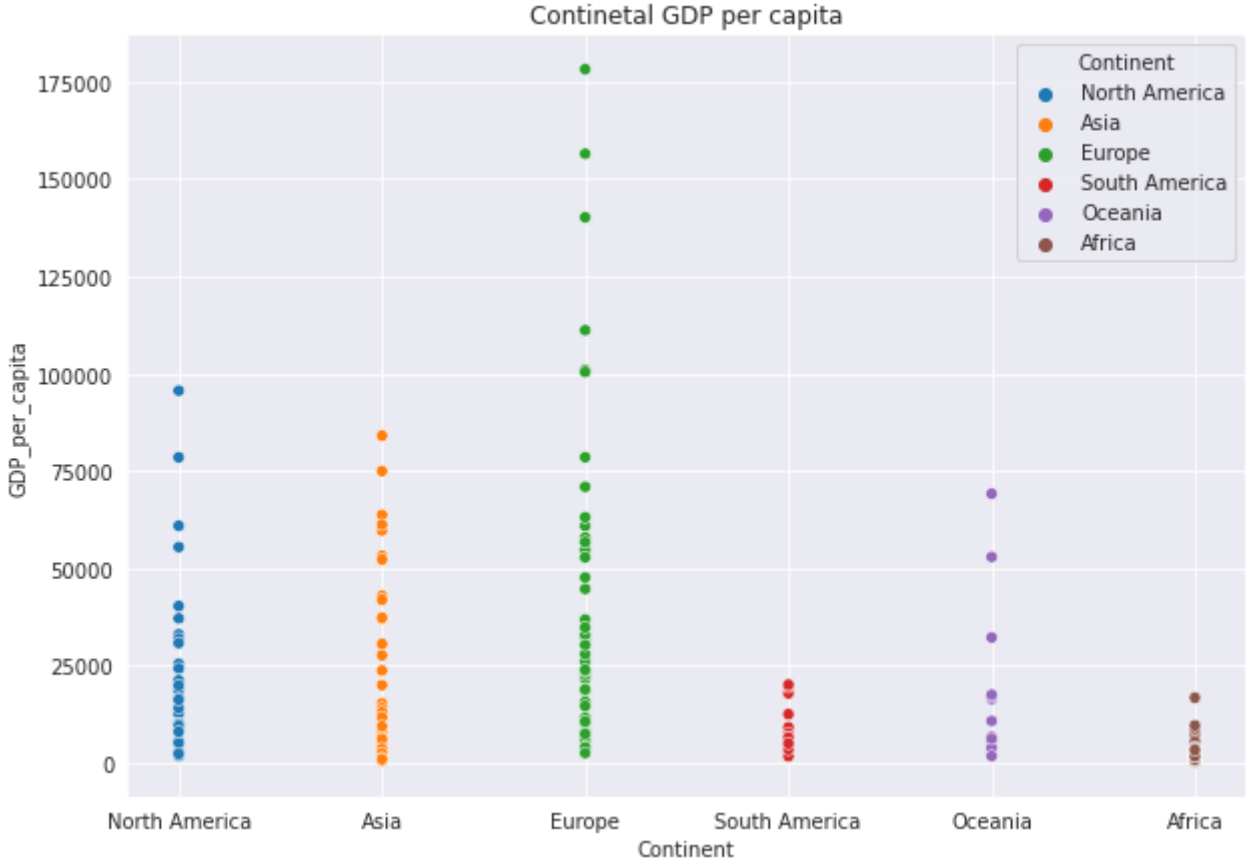
```
plt.figure(figsize=(15,7))
g=sns.barplot(x='Country',y='Population',data=gdp_Prank_df,hue='Continent')
g.set_title("Top 10 Countries Population wise")
g.set_xlabel("World Top 10 Countries")
g.set_ylabel("Population Data")
```

```
Text(0, 0.5, 'Population Data')
```



- **Here in above there are top 10 countries population wise and in which mostly are from Asia region and the other from other continent.**

```
plt.figure(figsize=(10,7))
sns.scatterplot(x='Continent',y='GDP_per_capita',hue='Continent',data= gdp_df)
plt.title('Continetal GDP per capita');
```



InSights

> HEre we can see that the countries whose GDP are good in worldwide there GDP per Capita are not good because population affects in GDP per capita(Means Standard living) because if any country have more population it's there are struggle for basic needs or resources. So for a country, population control is very important. If country want to offer a well life style to their citizen .

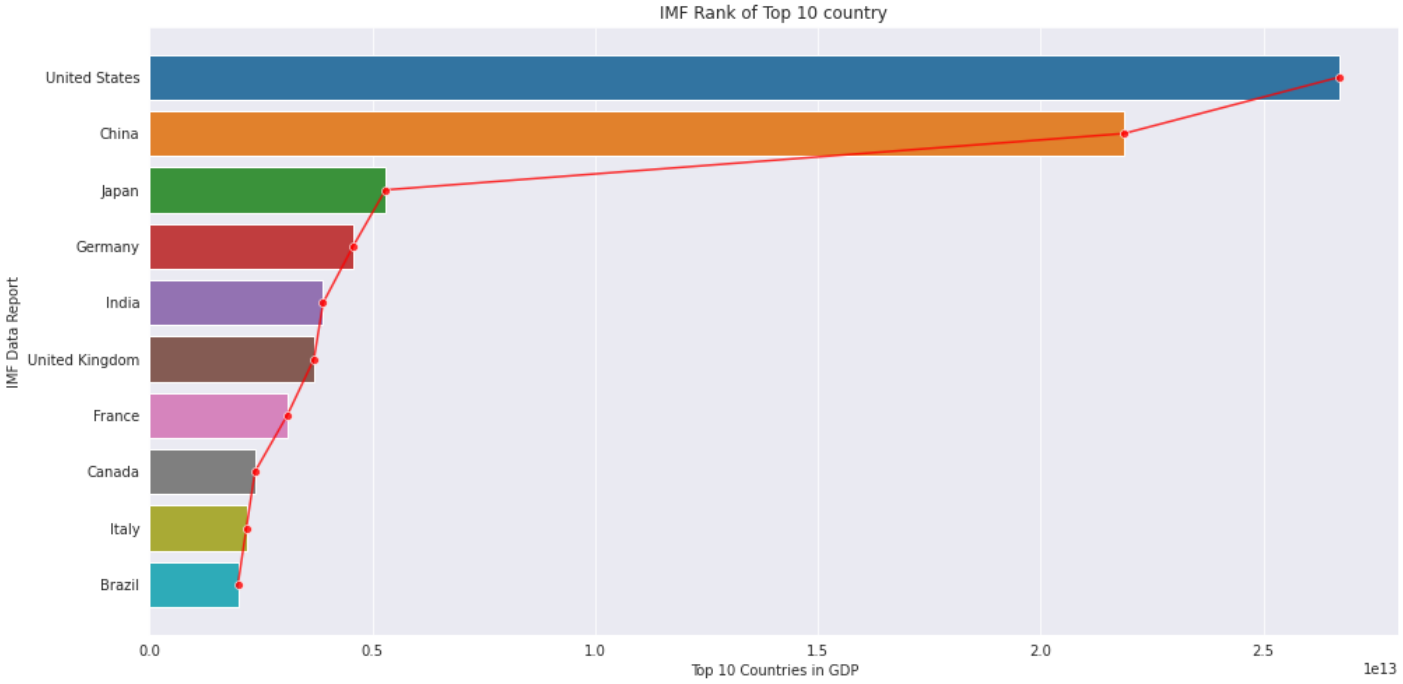
Now Q/A Time

Lets talks about question and answer

Ques : What is the Rank of India in GDP?

Ans :

```
plt.figure(figsize=(16,8))

g1= sns.barplot(x=gdp_wrank_df.IMF_GDP,y=gdp_wrank_df.Country,data = gdp_df)
g1.set_title("IMF Rank of Top 10 country")
g1.set_xlabel("Top 10 Countries in GDP")
g1.set_ylabel("IMF Data Report");
sns.lineplot(x=gdp_wrank_df.IMF_GDP,y=gdp_wrank_df.Country,data=gdp_df,marker='o',color
```

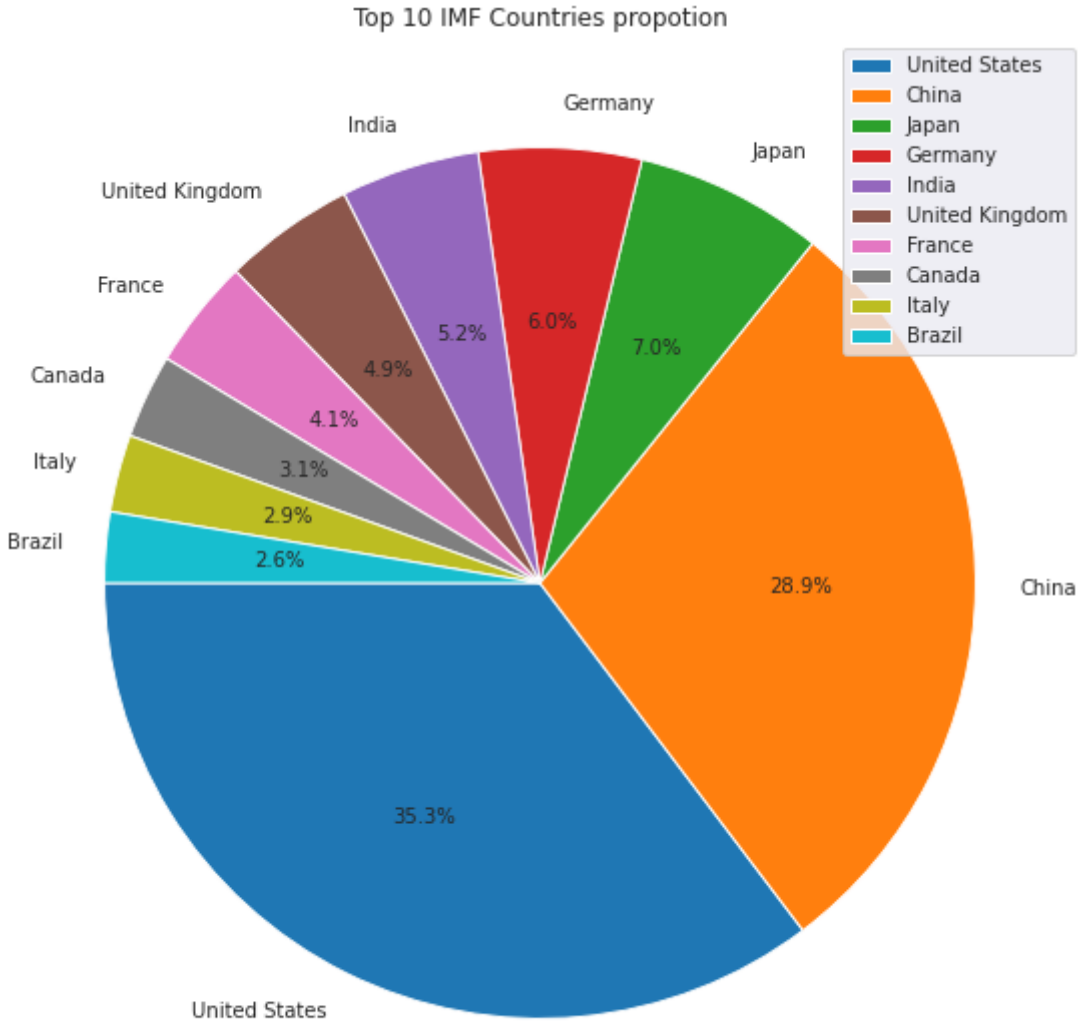


InSights

> **According to the World GDP Ranking 2023 list, India is the fifth largest economy in the world. Other prominent countries like the United States of America, China, Japan, Germany, etc., have a significant presence in this GDP Ranking list.**

Ques : WHy US is on Top in GDP?

```
plt.figure(figsize=(16,10))
plt.pie(gdp_wrank_df.IMF_GDP,labels=gdp_wrank_df.Country,autopct='%1.1f%%' , startangle
plt.title('Top 10 IMF Countries propotion')
plt.legend()
plt.show();
```



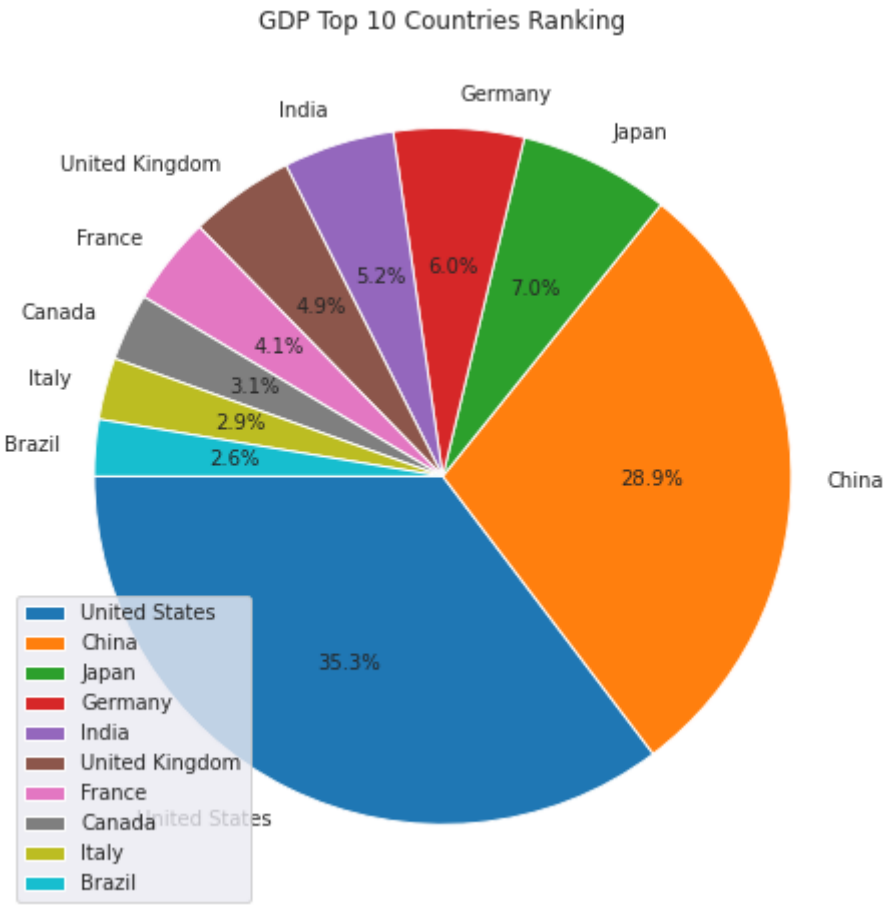
InSights

As we all know very well US is alway show as a Super power in world in Defense,Tech,Finance,Trade and politics and also global major trade exchange currency is Dollar which is also represent to US also in major conferences US always represent and if we talk about GDP per capita in US which is also very well there citizens are rich and country is counts in developed nations.

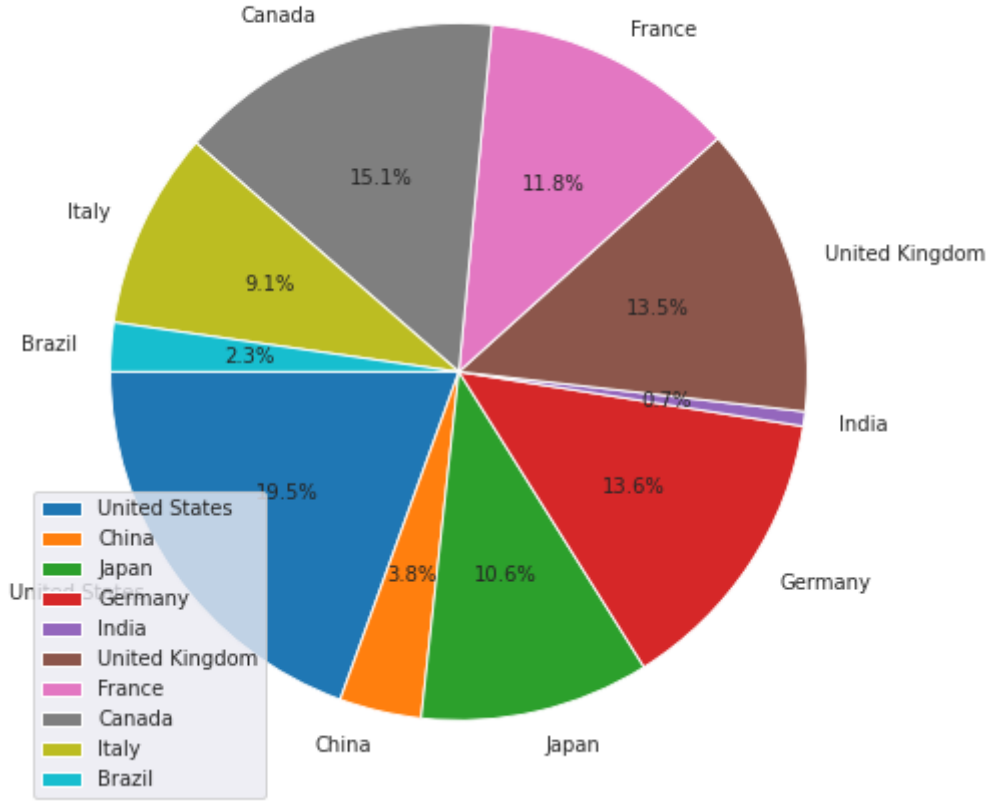
> **About US Report: The United States is the world's largest trading nation, with over $5.6 trillion in exports and imports of goods and services in 2019. The U.S. has trade relations with more than 200 countries, territories, and regional associations around the globe. The United States is the 2nd largest goods exporter in the world.**

Ques ：Developed and Developing Countries?

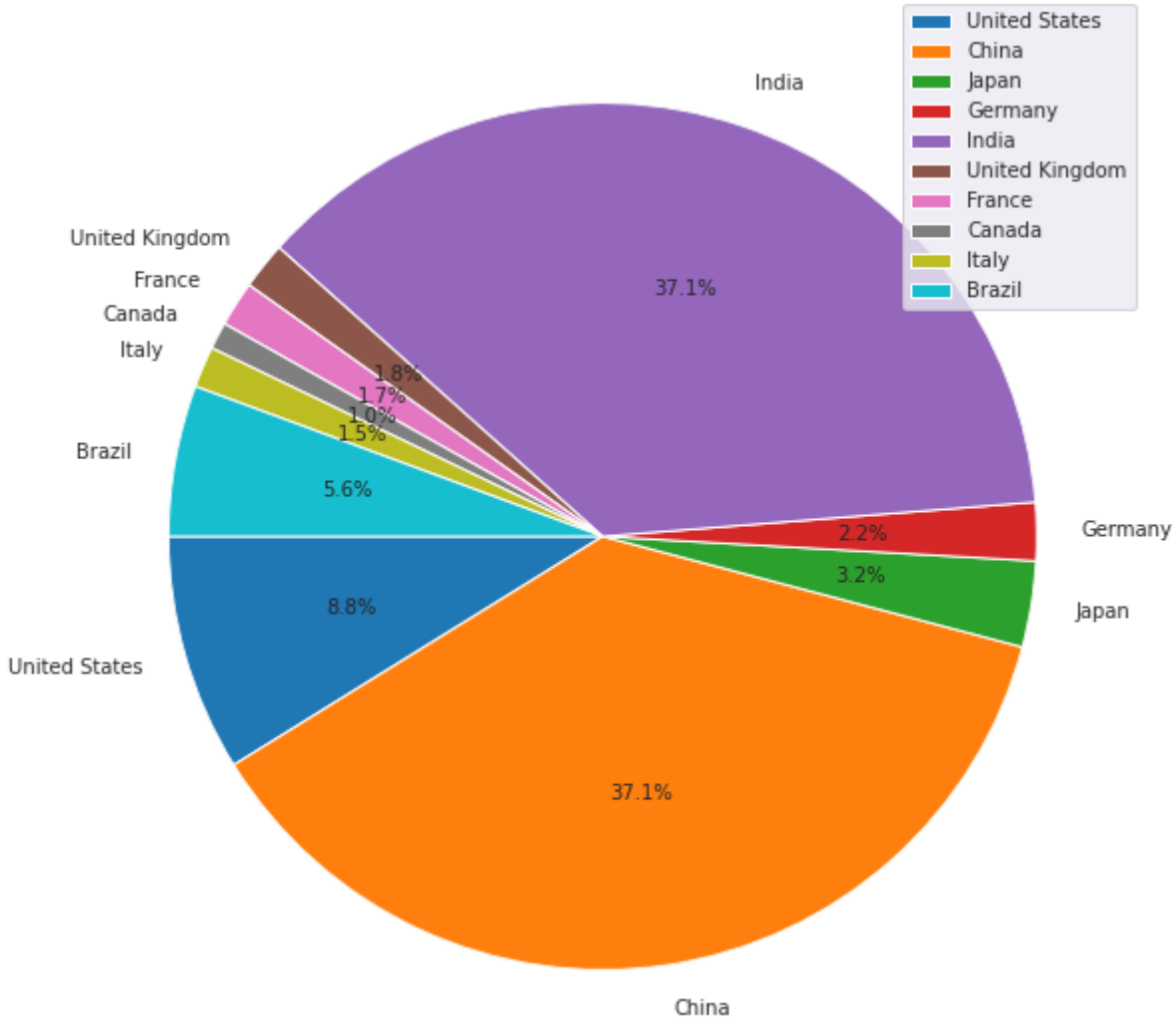
```
plt.figure(figsize=(12,8))

g1=plt.pie(gdp_wrank_df.IMF_GDP,labels=gdp_wrank_df.Country,autopct='%1.1f%%',startangl
plt.title('GDP Top 10 Countries Ranking')
plt.legend()
plt.show()

plt.figure(figsize=(10,8))


g2=plt.pie(gdp_wrank_df.GDP_per_capita,labels=gdp_wrank_df.Country,autopct='%1.1f%%',st
plt.title('GDP per Capita Top 10 Countries Ranking')
plt.legend()
plt.show()

plt.figure(figsize=(10,10))


g3=plt.pie(gdp_wrank_df.Population,labels=gdp_wrank_df.Country,autopct='%1.1f%%',starta
plt.title('Top 10 Countries in Population')
plt.legend()
plt.show()
```



GDP per Capita Top 10 Countries Ranking



Top 10 Countries in Population



Insights

- **A country having an effective rate of industrialization and individual income is known as Developed Country.**

- **Developing Country is a country which has a slow rate of industrialization and low per capita income. Infant mortality rate, death rate and birth rate is low while the life expectancy rate is high.**

InSights

A picture for well understanding that some of the countries in GDP Report are in the Developing countries so that for the upcoming year these Developing countries will make a new place in world GDP also in the other field where Developed nations are on Top.But if check the Reports of Population that the other Developed countries are less populated than other major economies countries so that its really a big challenge for the developing countries in terms of population.They need to focus and make strategy in the area of population and also these countries time to time take many steps for decreasing their population growth but not effective so let's see what will be the next GDP Report.

Some Points related to GDP

What Factors in which GDP depends?

The four components of gross domestic product are personal consumption, business investment, government spending, and net exports. 1 That tells you what a country is good at producing. GDP is the country's total economic output for each year.

What are the factors affecting GDP growth?

Economists generally agree that economic factors affecting economic growth and development are: human resources, physical capital, natural resources, technology development, entrepreneurship, population growth and social overheads.

What is the largest factor of GDP?

Consumption is the largest component of the GDP. In the U.S., the largest and most stable component of consumption is services. Consumption is calculated by adding durable and non-durable goods and services expenditures.

What are the three types of GDP?

GDP can be measured in three different ways: the value added approach, the income approach (how much is earned as income on resources used to make stuff), and the expenditures approach (how much is spent on stuff).

What does India's GDP mainly depend upon?

Nearly 70% of India's GDP is driven by domestic consumption. The country remains the world's sixth-largest consumer market.

Does population affect GDP?

There is a straightforward relationship when identifying the sources of economic growth: Growth rate of gross domestic product (GDP) = Growth rate of population + growth rate of GDP per capita.

Who launched GDP and When?

GDP is the most commonly used measure of economic activity. The first basic concept of GDP was invented at the end of the 18th century. The modern concept was developed by the American economist Simon Kuznets in 1934 and adopted as the main measure of a country's economy at the Bretton Woods conference in 1944.

Inferences and Conclusion

In this project we understand the importance of GDP and it's type also we saw the population is the main key where GDP affect.

- In this project we know the basis terms of GDP and it's types and importance.
- Here we know that the top 10 countries whose GDP cover mostly world area,population,Trade etc.
- Top countries in GDP have not good GDP per Capita because of population it mean there are some factor in which GDP depends.
- The top populated countries are India and China which cover mostly population of the world.
- Countries are divided into several category as per there GDP growth.
- In GDP United States on top and on the second place is China.
- Here we understand that the GDP is the way for understand the countries economy system as well country financial situation.
- If any country want a good financial situation and GDP growth needs to work on population so that citizens of the country can benefited of good lifestyle.

Project References:

Data Reference: 'https://www.kaggle.com/datasets/ppb00x/country-gdp?select=countries.csv'

Code Reference: 'https://www.w3schools.com/python/'

Seaborn gallery: https://seaborn.pydata.org/examples/index.html

Matplotlib gallery: https://matplotlib.org/3.1.1/gallery/index.html

Matplotlib tutorial: https://github.com/rougier/matplotlib-tutorial

Reference: https://jovian.com/outlink?url=https%3A%2F%2Fjovian.ai%2Faakashns%2Fpython-matplotlib-data-visualization

Future Works:

There are lot of scope for making this report informative also need to work on the charts so that project will be better.

- Upcoming project will be based on country annual budget system.
- Work on the other Economic and global Reports.

- Work on the other National Report as well which are published by Govt. time to time.

```
jovian.commit()
```

```

```