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# **Inflation data of countries of the world using SQL**

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**Dataset used : Kaggle**



**This dataset is of 266 countries which was originally of 61 years at yearly level(period 1960-2021), showing country name, country code and indicator is consumer prices which is used for measuring inflation. Since there were 60 columns for 60 years. Average of five years starting from 1960 till 2019 comprising then of 14 columns wherein 2020 and 2021 inflation is not averaged.**

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- ❖ country\_name: this column shows the name of 266 countries.
- ❖ country\_code: Shows the code used for each country.
- ❖ indicator\_name: Inflation is measured annually using consumer price index.
- ❖ Average\_Inflation1960\_1964: Measures the average of inflation between the years 1960 and 1964.
- ❖ Average\_Inflation1965\_1969: Measures the average of inflation between the years 1965 and 1969.
- ❖ Average\_Inflation1970\_1974,.....Average\_Inflation2015\_2019: All these columns measures the average of inflation in between their respective years.
- ❖ Inflation\_2020 and Inflation\_2021: Measures the inflation of the respective years.
- ❖ Region: This column shows the region in which particular country lies whether it is Latin America & Caribbean, South Asia, Sub-Saharan Africa, Europe & Central Asia, Middle East & North Africa
- ❖ Income\_group: Shows the division of countries on the basis of income level like high income, low income, lower middle income, upper middle income.

# How many countries are there in this world inflation dataset?

```
Select Count(*)  
From portfolioproject.inflationworld_dataset;
```



Count(*)
266



# Which country has the highest inflation in the year 2015-2019?

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```
Select country_name, max(Average_Inflation2015_2019)
From portfolioproject.inflationworld_dataset
Group by country_name
Order by 2 desc;
```



country_name	max(Average_Inflation2015_2019)
South Sudan	158.27
Venezuela, RB	75.34
Zimbabwe	52.57
Sudan	36.26
Angola	21.28

# Joining two tables with common column as country code

```
Select a.country_name, b.country_code, Average_Inflation2005_2009, Average_Inflation2010_2014, Average_Inflation2015_2019, Inflation_2021, Inflation_2022,b.region, b.income_group
From portfolioproject.inflationworld_dataset a
Inner Join
portfolioproject.inflationworld2_dataset b
On a.country code = b.country code;
```



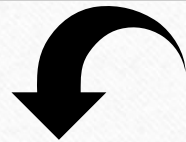
country_name	country_code	Average_Inflation2005_	Average_Inflation2010_2014	Average_Inflation2015_2019	Inflation_2021	Inflation_2022	region	income_group
Aruba	ABW	3.84	1.1	1.28	0	0	Latin America & Caribbean	High income
Africa Eastern and Southern	AFE	9.49	6.96	5.41	5.4	7.24		
Afghanistan	AFG	9.55	6.5	2.33	0	0	South Asia	Low income
Africa Western and Central	AFW	5.8	2.92	1.79	2.49	3.93		
Angola	AGO	14.94	1.86	21.28	0	0	Sub-Saharan Africa	Lower middle income



Creating common table expression-With Country, their inflation rates, their region and the income group in which they are falling.

```
With Regional_inflation_data As (  
Select a.country_name, b.country_code, Average_Inflation2005_2009,  
Average_Inflation2010_2014, Average_Inflation2015_2019, Inflation_2021,  
Inflation_2022, b.region, b.income_group  
From portfolioproject.inflationworld_dataset a  
Inner Join
```

```
From portfolioproject.inflationworld_dataset a  
Inner Join  
portfolioproject.inflationworld2_dataset b  
On a.country_code = b.country_code)  
Select *  
From Regional_inflation_data;
```



country_name	country_code	Average_Inflation2005_2009	Average_Inflation2010_2014	Average_Inflation2015_2019	Inflation_2021	Inflation_2022	region	income_group
Aruba	ABW	3.84	1.1	1.28	0	0	Latin America & Car...	High income
Africa Eastern and Southern	AFE	9.49	6.96	5.41	5.4	7.24		
Afghanistan	AFG	9.55	6.5	2.33	0	0	South Asia	Low income
Africa Western and Central	AFW	5.8	2.92	1.79	2.49	3.93		
Angola	AGO	14.94	1.86	21.28	0	0	Sub-Saharan Africa	Lower middle income

# Count the countries which belong to high income category?

```
Select Count(*)  
From (Select a.country_name, b.country_code, Average_Inflation2005_2009,  
Average_Inflation2010_2014, Average_Inflation2015_2019, Inflation_2021,  
Inflation_2022,b.region, b.income_group  
From portfolioproject.inflationworld_dataset a  
Inner Join  
portfolioproject.inflationworld2_dataset b  
On a.country_code = b.country_code) c  
Where income_group = "High income";
```



Count(*)
80



# Count the countries which belong to upper middle income category?

```
Select Count(*)  
From (Select a.country_name, b.country_code, Average_Inflation2005_2009,  
Average_Inflation2010_2014, Average_Inflation2015_2019, Inflation_2021,  
Inflation_2022,b.region, b.income_group  
From portfolioproject.inflationworld_dataset a  
Inner Join  
portfolioproject.inflationworld2_dataset b  
On a.country_code = b.country_code) c  
Where income_group = "Upper middle income";
```



Count(*)
54



# Name the countries whose inflation rate is higher than that of North America in 1995-1999?

```
Select b.country_name
From portfolioproject.inflationworld_dataset a
Inner Join
portfolioproject.inflationworld2_dataset b
On a.country_code = b.country_code
Where a.Average_Inflation1995_1999 > (Select avg(a.Average_Inflation1995_1999)
                                     From portfolioproject.inflationworld_dataset a
                                     Inner Join
                                     Inner Join
                                     portfolioproject.inflationworld2_dataset b
                                     On a.country_code = b.country_code
                                     Where region = "North America"
                                     Group by region);
```



country_name
Aruba
Africa Eastern and Southern
Africa Western and Central
Angola
Albania





# find the average of inflation of countries from the 1960-1979?

```
Select country_name, (avg(Average_Inflation1960_1964)+Avg(Average_Inflation1965_1969)+ Avg(Average_Inflation1970_1974)+  
Avg(Average_Inflation1975_1979))/4 as avg_of_four_columns  
From (Select a.country_name, b.country_code, Average_Inflation1960_1964, Average_Inflation1965_1969,Average_Inflation1970_1974,  
Average_Inflation1975_1979, Average_Inflation1980_1984, Average_Inflation1985_1989, Average_Inflation1990_1994,  
Average_Inflation1995_1999,Average_Inflation2000_2004, Average_Inflation2005_2009, Average_Inflation2010_2014,  
Average_Inflation2015_2019, Inflation_2021,Inflation_2022, b.region, b.income_group  
From inflationworld_dataset a  
Inner Join inflationworld2_dataset b  
On a.country_code = b.country_code) c  
Group by a.country_name;
```



country_name	avg_of_four_columns
Aruba	0
Africa Eastern and Southern	3.415
Afghanistan	0
Africa Western and Central	0
Angola	0

# Find the average of inflation of countries from the 1980-1999?

```
> Select country_name, ROUND(((avg(Average_Inflation1980_1984)+Avg(Average_Inflation1985_1989)+ Avg(Average_Inflation1990_1994)+  
~ Avg(Average_Inflation1995_1999))/4),2) as avg_of_four_columns_1  
> From (Select a.country_name, b.country_code, Average_Inflation1960_1964, Average_Inflation1965_1969,Average_Inflation1970_1974,  
Average_Inflation1975_1979, Average_Inflation1980_1984, Average_Inflation1985_1989, Average_Inflation1990_1994,  
Average_Inflation1995_1999,Average_Inflation2000_2004, Average_Inflation2005_2009, Average_Inflation2010_2014,  
Average_Inflation2015_2019, Inflation_2021,Inflation_2022, b.region, b.income_group  
From inflationworld_dataset a  
Inner Join inflationworld2_dataset b  
On a.country_code = b.country_code) c  
Group by a.country_name;
```



country_name	avg_of_four_columns_1
Aruba	2.82
Africa Eastern and Southern	12.53
Afghanistan	0
Africa Western and Central	6.03
Angola	504.89



# Find the average of inflation of countries from the 2000-Inflation 2022?

```
> Select country_name, ROUND(((avg(Average_Inflation1980_1984)+Avg(Average_Inflation1985_1989)+ Avg(Average_Inflation1990_1994)+  
- Avg(Average_Inflation1995_1999))/4),2) as avg_of_four_columns_1  
> From (Select a.country_name, b.country_code, Average_Inflation1960_1964, Average_Inflation1965_1969,Average_Inflation1970_1974,  
Average_Inflation1975_1979, Average_Inflation1980_1984, Average_Inflation1985_1989, Average_Inflation1990_1994,  
Average_Inflation1995_1999,Average_Inflation2000_2004, Average_Inflation2005_2009, Average_Inflation2010_2014,  
Average_Inflation2015_2019, Inflation_2021,Inflation_2022, b.region, b.income_group  
From inflationworld_dataset a  
Inner Join inflationworld2_dataset b  
On a.country_code = b.country_code) c  
Group by a.country_name;
```



country_name	avg_of_four_columns_2
Aruba	1.58
Africa Eastern and Southern	6.94
Afghanistan	3.06
Africa Western and Central	3.24
Angola	30.62

Name the countries whose inflation rate was continuously rising from 1960 to 2022?

```
select country_name, Round((((avg(Average_Inflation1960_1964)+Avg(Average_Inflation1965_1969)+ Avg(Average_Inflation1970_1974)+
Avg(Average_Inflation1975_1979))/4),2) as avg_of_four_columns, ROUND((((avg(Average_Inflation1980_1984)+Avg(Average_Inflation1985_1989)+
Avg(Average_Inflation1990_1994)+Avg(Average_Inflation1995_1999))/4),2) as avg_of_four_columns_1,
ROUND((((avg(Average_Inflation2000_2004)+Avg(Average_Inflation2005_2009)+ Avg(Average_Inflation2010_2014)+
Avg(Average_Inflation2015_2019)+avg(Inflation_2021)+ avg(Inflation_2022))/6),2) as avg_of_four_columns_2
From (Select a.country_name, b.country_code, Average_Inflation1960_1964, Average_Inflation1965_1969,Average_Inflation1970_1974,
Average_Inflation1975_1979, Average_Inflation1980_1984, Average_Inflation1985_1989, Average_Inflation1990_1994,
Average_Inflation1995_1999,Average_Inflation2000_2004, Average_Inflation2005_2009, Average_Inflation2010_2014,
Average_Inflation2015_2019, Inflation_2021,Inflation_2022, b.region, b.income_group
From inflationworld_dataset a
```

```
From inflationworld_dataset a
```


```
Inner Join inflationworld2_dataset b
```

```
On a.country_code = b.country_code) c
```

```
Group by country_name
```

```
Having avg_of_four_columns_1 > avg_of_four_columns and
```

```
avg_of_four_columns_2 > avg_of_four_columns_1;
```



country_name	avg_of_four_columns	avg_of_four_columns_1	avg_of_four_columns_2
Antigua and Barbuda	0	0.06	1.79
Bangladesh	0	4.01	6.18
Djibouti	0	2.12	2.2
Ethiopia	4.26	6.06	12.84
Guyana	0	1.75	3.76
India	4.82	4.88	6.06
Kyrgyz Republic	0	0.64	6.23
Cambodia	0	1.66	3.61
Pakistan	3.04	6.24	8.38
West Bank and Gaza	0	0.91	2.17



# Number of countries whose inflation rate was continuously rising from 1960 to 2022?

```
Select Count(*)
From (select country_name, Round((((avg(Average_Inflation1960_1964)+Avg(Average_Inflation1965_1969)+ Avg(Average_Inflation1970_1974)+
Avg(Average_Inflation1975_1979))/4),2) as avg_of_four_columns, ROUND((((avg(Average_Inflation1980_1984)+Avg(Average_Inflation1985_1989)
+ Avg(Average_Inflation1990_1994)+Avg(Average_Inflation1995_1999))/4),2) as avg_of_four_columns_1,
ROUND((((avg(Average_Inflation2000_2004)+Avg(Average_Inflation2005_2009)+ Avg(Average_Inflation2010_2014)+
Avg(Average_Inflation2015_2019)+avg(Inflation_2021)+ avg(Inflation_2022))/6),2) as avg_of_four_columns_2
From (Select a.country_name, b.country_code, Average_Inflation1960_1964, Average_Inflation1965_1969,Average_Inflation1970_1974,
Average_Inflation1975_1979, Average_Inflation1980_1984, Average_Inflation1985_1989, Average_Inflation1990_1994,
Average_Inflation1995_1999,Average_Inflation2000_2004, Average_Inflation2005_2009, Average_Inflation2010_2014,
Average_Inflation2015_2019, Inflation_2021,Inflation_2022, b.region, b.income_group
From inflationworld_dataset a
```

```
From inflationworld_dataset a
Inner Join inflationworld2_dataset b
On a.country_code = b.country_code) c
Group by country_name
Having avg_of_four_columns_1 > avg_of_four_columns and
avg_of_four_columns_2 > avg_of_four_columns_1) d;
```



Count(*)
19

# Insights Generated

- ❖ There are 266 countries in this dataset wherein inflation is compared along different years.
- ❖ Inflation rate of South Sudan was highest during 2015-2019.
- ❖ No. of countries which belong to high income category are 80 and those which belong to upper middle income category are 54.
- ❖ Number of countries whose inflation rate was continuously rising from 1960 to 2022 are 19.