

1. Create a new table that consolidates information from multiple tables using DAX.

```
HealthExpenditureSummary = SUMMARIZE('Health Expenditure',
Country[CountryID], 'Year'[YearID], "Country_Name", max(Country[CountryName]),
"Year", max('Year'[Year]), "Total_Expenditure", sum('Health
Expenditure'[ExpenditureAmount]), "Total_GDP", sum(GDP[GDPAmount]),
"Total_Population", sum(Population[PopulationCount]))

// This DAX function creates a table HealthExpenditureSummary. The preview of this
table is shown below.
```

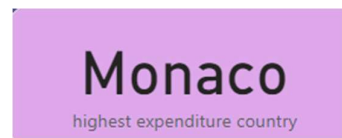
CountryID	YearID	Country_Name	Year	Total_Expenditure	Total_GDP	Total_Population	expenditure per capita
1	1	Algeria	2018	1582	4184	41927	0.0377322489088177
2	1	Angola	2018	667	3241	31274	0.0213276203875424
3	1	Botswana	2018	2494	6948	2451	1.01754385964912
4	1	Burkina Faso	2018	189	788	20393	0.00926788603932722
5	1	Burundi	2018	69	264	11493	0.00600365439832942
6	1	Benin	2018	198	1193	11941	0.0165815258353572
7	1	Cabo Verde	2018	1063	3443	571	1.86164623467601
8	1	Cameroon	2018	286	1594	25077	0.0114048729911871
9	1	Central African Republic	2018	79	447	5095	0.0155053974484789
10	1	Chad	2018	94	707	15604	0.00602409638554217
11	1	Comoros	2018	291	1518	776	0.375
12	1	Congo	2018	483	2507	5441	0.0887704466090792
13	1	Côte d'Ivoire	2018	403	2275	25494	0.0158076410135718
14	1	Democratic Republic of the Congo	2018	60	541	87087	0.000688966206207586
15	1	Equatorial Guinea	2018	1687	8719	1502	1.12316910785619
16	1	Eritrea	2018	159	582	3445	0.0461538461538462
17	1	Eswatini	2018	1410	4022	1160	1.21551724137931
18	1	Ethiopia	2018	116	722	111129	0.00104383194305717
19	1	Gabon	2018	1315	7695	2192	0.599908759124088
20	1	Gambia	2018	142	683	2445	0.0580777096114519
21	1	Ghana	2018	456	2180	30871	0.0147711444397655

HealthExpenditureSummary (573 rows)

2. Find the countries/regions with the highest and lowest health expenditure for all years.

```
highest expenditure country = var max_expenditure =
max(HealthExpenditureSummary[Total_Expenditure]) return
CALCULATE(max(HealthExpenditureSummary[Country_Name]),filter(HealthExpenditureSumma
ry,HealthExpenditureSummary[Total_Expenditure]=max_expenditure))
```

// This DAX function returns the country with the Highest Health Expenditure that is Monaco.



```
lowest expenditure country = var min_expenditure =
min(HealthExpenditureSummary[Total_Expenditure]) return
CALCULATE(max(HealthExpenditureSummary[Country_Name]),filter(HealthExpenditureSumma
ry,HealthExpenditureSummary[Total_Expenditure]=min_expenditure))
```

// This DAX function returns the country with the Lowest Health Expenditure that is Democratic Republic of the Congo.

Democratic Republic of the Congo

lowest expenditure country

3. Determine the percentage of health expenditure as a share of GDP for each country.

```
total expenditure = sum(HealthExpenditureSummary[Total_Expenditure])
```

```
// This DAX function returns the sum of the total expenditure.
```

```
total gdp = sum(HealthExpenditureSummary[Total_GDP])
```

```
// This DAX function returns the sum of the total GDP.
```

```
gdp_share = DIVIDE([total expenditure],[total gdp])*100
```

```
// This DAX function returns the GDP share.
```

```
//Further, the below table visualization shows the consolidated result of each DAX Function.
```

Country_Name	total expenditure	total gdp	gdp_share
Afghanistan	429	1520	28.22
Albania	4801	15905	30.19
Algeria	4354	11591	37.56
Andorra	46198	121099	38.15
Angola	1598	7596	21.04
Antigua and Barbuda	12007	50634	23.71
Argentina	12058	30588	39.42
Armenia	3639	13727	26.51
Australia	72098	167934	42.93
Austria	77296	150502	51.36
Azerbaijan	4729	13499	35.03
Bahamas	19792	88858	22.27
Bahrain	25376	74789	33.93
Bangladesh	833	5394	15.44
Barbados	15932	53757	29.64
Belarus	7254	19220	37.74
Belgium	75972	139678	54.39
Belize	4881	13955	34.98
Benin	606	3605	16.81
Bhutan	2892	9394	30.79
Bolivia (Plurinational State of)	3705	10012	37.01
Bosnia and Herzegovina	7631	17957	42.50
Botswana	7184	19490	36.86
Brazil	9657	24761	39.00
Brunei Darussalam	29040	89163	32.57

4. Calculate the average health expenditure per capita for each country/region.

```
expenditure per capita =
```

```
divide(HealthExpenditureSummary[Total_Expenditure],HealthExpenditureSummary[Total_Population])
```

```
// This DAX function returns the health expenditure per capita. This is further represented by following preview.
```

Country_Name	Average of expenditure per capita
Afghanistan	0.00
Albania	0.56
Algeria	0.03
Andorra	201.71
Angola	0.02
Antigua and Barbuda	43.35
Argentina	0.09
Armenia	0.43
Australia	0.95
Austria	2.91
Azerbaijan	0.15
Bahamas	16.31
Bahrain	5.69
Bangladesh	0.00
Barbados	18.94
Belarus	0.25
Belgium	2.21
Belize	4.19
Benin	0.02
Bhutan	1.26
Bolivia (Plurinational State of)	0.10
Bosnia and Herzegovina	0.76
Botswana	0.96
Brazil	0.02
Brunei Darussalam	22.11