In [1]:

```
import pandas as pd #Data analysis and manipulation
import matplotlib.pyplot as plt #Data visualization
import plotly.offline as py #creates functions both online and offline mode
import plotly.graph_objs as go #tracing objects
import plotly.express as px #easier and faster to create plotly figures
import plotly.io as pio #display the figure using the current default renderer(s)
import csv
```

In [2]:

```
df = pd.read_csv("covid.csv")
```

In [3]:

```
df.drop(['NewCases', 'NewDeaths',  'NewRecovered'], axis=1,inplace=True)
```

In [4]:

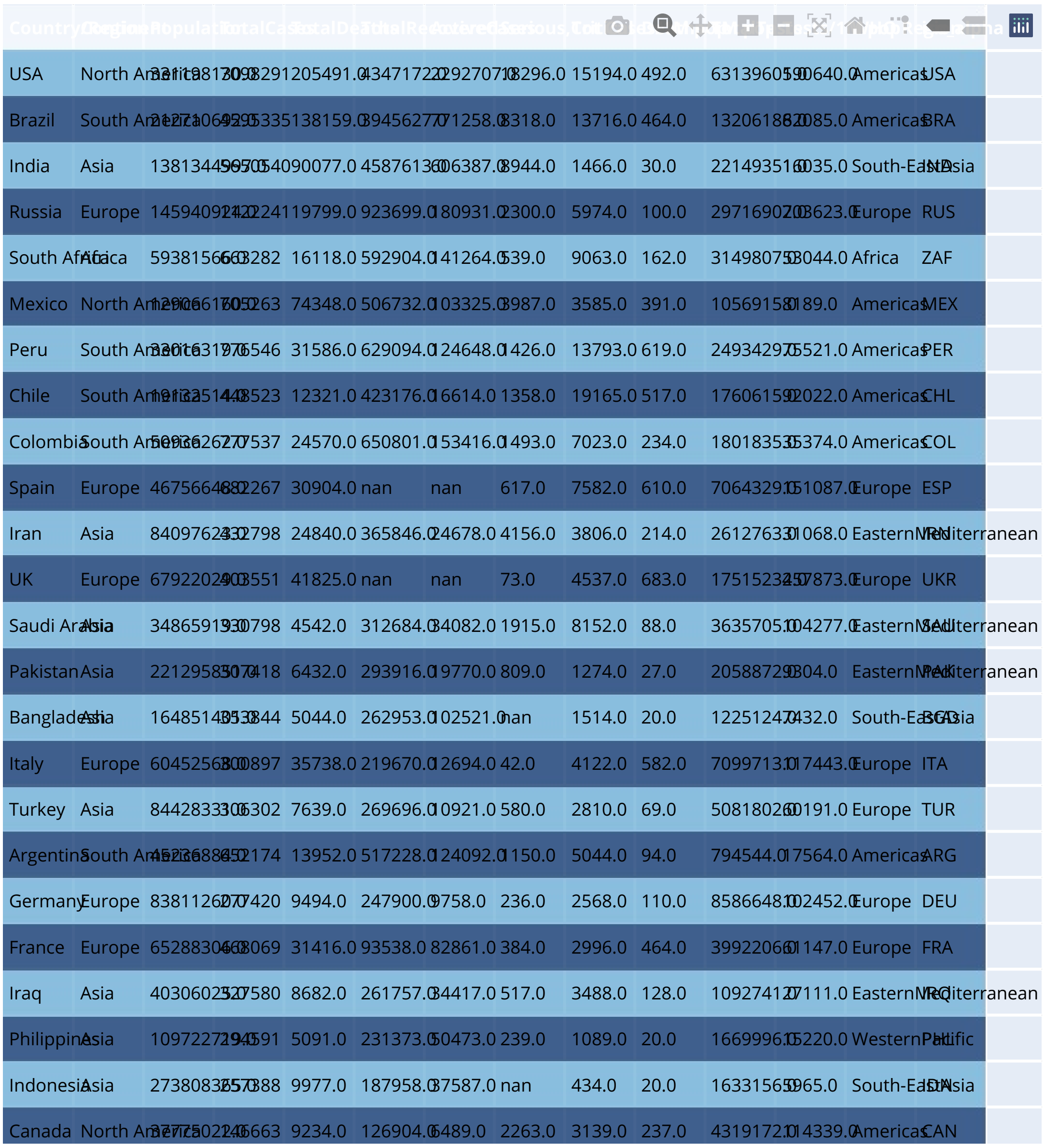
```
df.columns
```

Out[4]:

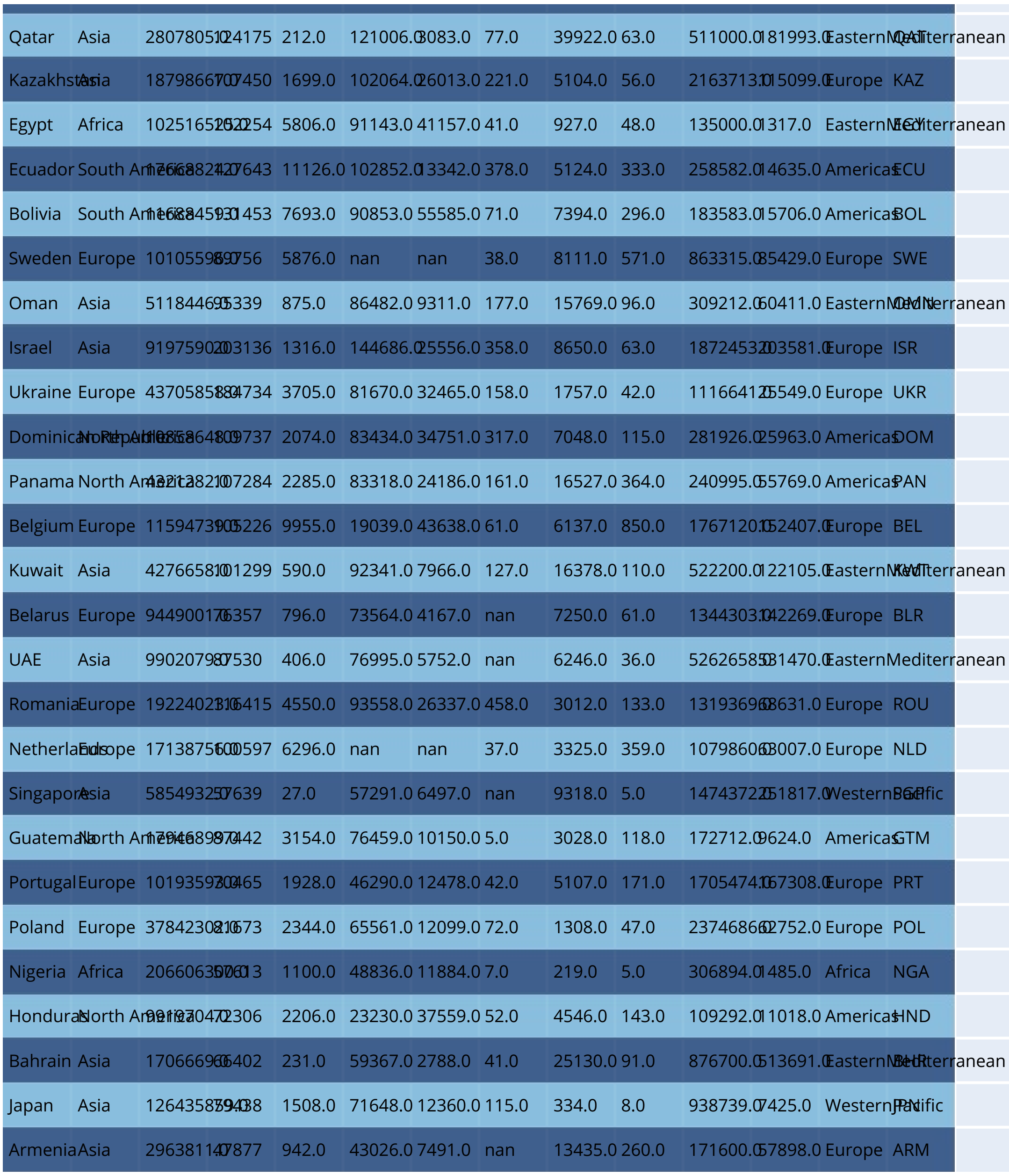
```
Index(['Country/Region', 'Continent', 'Population', 'TotalCases',
       'TotalDeaths', 'TotalRecovered', 'ActiveCases', 'Serious,Critical',
       'Tot Cases/1M pop', 'Deaths/1M pop', 'TotalTests', 'Tests/1M pop',
       'WHO Region', 'iso_alpha'],
      dtype='object')
```

In [5]:

```
from plotly.figure_factory import create_table
table=create_table(df.head(50), colorscale="blues")
py.iplot(table)
```



Country/Region	Continent	Population	TotalCases	TotalDeaths	TotalRecovered	ActiveCases	Serious,Critical	Tot Cases/1M pop	Deaths/1M pop	TotalTests	Tests/1M pop	WHO Region	iso_alpha
USA	North America	331198130.0	7098291	205491.0	4347172.0	2292707.0	18296.0	15194.0	492.0	63139605.0	190640.0	Americas	USA
Brazil	South America	212710692.0	4595335	138159.0	3945627.0	771258.0	8318.0	13716.0	464.0	13206188.0	62085.0	Americas	BRA
India	Asia	1381344997.0	[illegible]	90077.0	4587613.0	[illegible]	8944.0	1466.0	30.0	22149351.0	16035.0	South-EastAsia	IND
Russia	Europe	145940924.0	1122241	19799.0	923699.0	180931.0	2300.0	5974.0	100.0	29716907.0	203623.0	Europe	RUS
South Africa	Africa	59381566.0	663282	16118.0	592904.0	141264.0	539.0	9063.0	162.0	3149807.0	53044.0	Africa	ZAF
Mexico	North America	129066160.0	705263	74348.0	506732.0	103325.0	3987.0	3585.0	391.0	1056915.0	8189.0	Americas	MEX
Peru	South America	33016319.0	776546	31586.0	629094.0	124648.0	1426.0	13793.0	619.0	2493429.0	75521.0	Americas	PER
Chile	South America	19132514.0	448523	12321.0	423176.0	16614.0	1358.0	19165.0	517.0	1760615.0	92022.0	Americas	CHL
Colombia	South America	50936262.0	770537	24570.0	650801.0	153416.0	1493.0	7023.0	234.0	1801835.0	35374.0	Americas	COL
Spain	Europe	46756648.0	682267	30904.0	nan	nan	617.0	7582.0	610.0	7064329.0	151087.0	Europe	ESP
Iran	Asia	84097623.0	432798	24840.0	365846.0	24678.0	4156.0	3806.0	214.0	2612763.0	31068.0	EasternMediterranean	IRN
UK	Europe	67922029.0	403551	41825.0	nan	nan	73.0	4537.0	683.0	17515234.0	257873.0	Europe	UKR
Saudi Arabia	Asia	34865919.0	330798	4542.0	312684.0	34082.0	1915.0	8152.0	88.0	3635705.0	104277.0	EasternMediterranean	SAU
Pakistan	Asia	221295851.0	307418	6432.0	293916.0	19770.0	809.0	1274.0	27.0	2058872.0	9304.0	EasternMediterranean	PAK
Bangladesh	Asia	164851401.0	353844	5044.0	262953.0	102521.0	nan	1514.0	20.0	1225124.0	7432.0	South-EastAsia	BGD
Italy	Europe	60452568.0	300897	35738.0	219670.0	12694.0	42.0	4122.0	582.0	7099713.0	117443.0	Europe	ITA
Turkey	Asia	84428331.0	306302	7639.0	269696.0	10921.0	580.0	2810.0	69.0	5081802.0	60191.0	Europe	TUR
Argentina	South America	45236884.0	652174	13952.0	517228.0	124092.0	1150.0	5044.0	94.0	794544.0	17564.0	Americas	ARG
Germany	Europe	83811260.0	277420	9494.0	247900.0	9758.0	236.0	2568.0	110.0	8586648.0	102452.0	Europe	DEU
France	Europe	65288306.0	468069	31416.0	93538.0	82861.0	384.0	2996.0	464.0	3992206.0	61147.0	Europe	FRA
Iraq	Asia	40306025.0	327580	8682.0	261757.0	34417.0	517.0	3488.0	128.0	1092741.0	27111.0	EasternMediterranean	IRQ
Philippines	Asia	109722719.0	294591	5091.0	231373.0	50473.0	239.0	1089.0	20.0	1669996.0	15220.0	WesternPacific	PHL
Indonesia	Asia	273808365.0	257388	9977.0	187958.0	37587.0	nan	434.0	20.0	1633156.0	5965.0	South-EastAsia	IDN
Canada	North America	37775022.0	146663	9234.0	126904.0	6489.0	2263.0	3139.0	237.0	4319172.0	114339.0	Americas	CAN

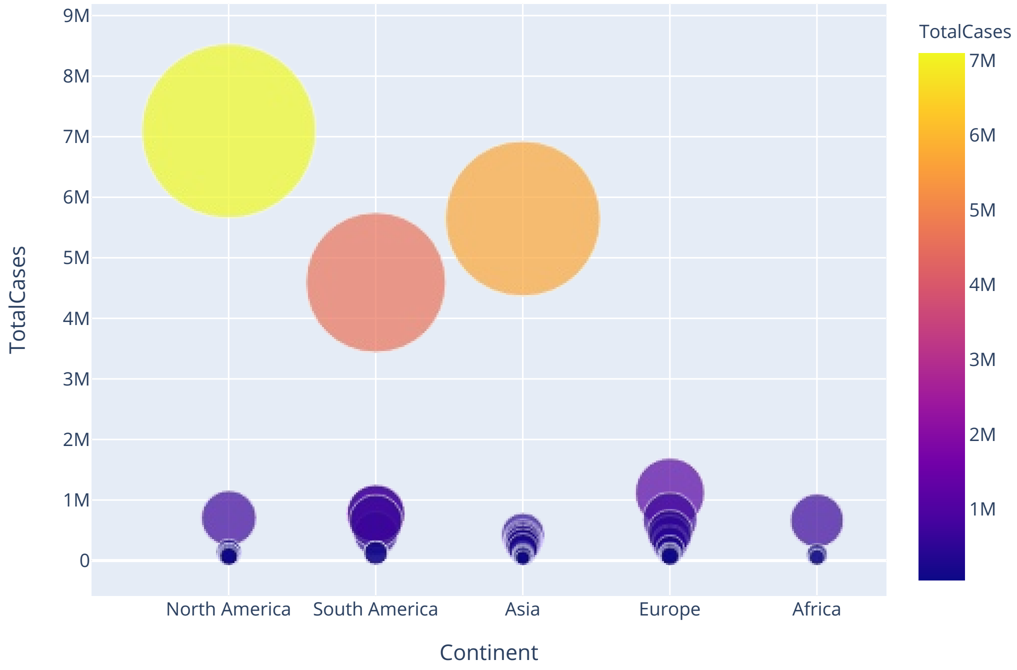


Qatar	Asia	2807805.0	124175	212.0	121006.0	3083.0	77.0	39922.0	63.0	511000.0	181993.0	EasternMediterranean	QAT
Kazakhstan	Asia	18798667.0	107450	1699.0	102064.0	26013.0	221.0	5104.0	56.0	2163713.0	115099.0	Europe	KAZ
Egypt	Africa	102516525.0	102254	5806.0	91143.0	41157.0	41.0	927.0	48.0	135000.0	1317.0	EasternMediterranean	EGY
Ecuador	South America	17668824.0	127643	11126.0	102852.0	13342.0	378.0	5124.0	333.0	258582.0	14635.0	Americas	ECU
Bolivia	South America	11688459.0	131453	7693.0	90853.0	55585.0	71.0	7394.0	296.0	183583.0	15706.0	Americas	BOL
Sweden	Europe	10105596.0	89756	5876.0	nan	nan	38.0	8111.0	571.0	863315.0	85429.0	Europe	SWE
Oman	Asia	5118446.0	95339	875.0	86482.0	9311.0	177.0	15769.0	96.0	309212.0	60411.0	EasternMediterranean	OMN
Israel	Asia	9197590.0	203136	1316.0	144686.0	25556.0	358.0	8650.0	63.0	1872453.0	203581.0	Europe	ISR
Ukraine	Europe	43705858.0	184734	3705.0	81670.0	32465.0	158.0	1757.0	42.0	1116641.0	25549.0	Europe	UKR
Dominican Republic	North America	10858648.0	109737	2074.0	83434.0	34751.0	317.0	7048.0	115.0	281926.0	25963.0	Americas	DOM
Panama	North America	4321282.0	107284	2285.0	83318.0	24186.0	161.0	16527.0	364.0	240995.0	55769.0	Americas	PAN
Belgium	Europe	11594739.0	105226	9955.0	19039.0	43638.0	61.0	6137.0	850.0	1767120.0	152407.0	Europe	BEL
Kuwait	Asia	4276658.0	101299	590.0	92341.0	7966.0	127.0	16378.0	110.0	522200.0	122105.0	EasternMediterranean	KWT
Belarus	Europe	9449001.0	76357	796.0	73564.0	4167.0	nan	7250.0	61.0	1344303.0	142269.0	Europe	BLR
UAE	Asia	9902079.0	87530	406.0	76995.0	5752.0	nan	6246.0	36.0	5262658.0	531470.0	EasternMediterranean	
Romania	Europe	19224023.0	116415	4550.0	93558.0	26337.0	458.0	3012.0	133.0	1319369.0	68631.0	Europe	ROU
Netherlands	Europe	17138756.0	100597	6296.0	nan	nan	37.0	3325.0	359.0	1079860.0	63007.0	Europe	NLD
Singapore	Asia	5854932.0	57639	27.0	57291.0	6497.0	nan	9318.0	5.0	1474372.0	251817.0	WesternPacific	SGP
Guatemala	North America	17946899.0	87442	3154.0	76459.0	10150.0	5.0	3028.0	118.0	172712.0	9624.0	Americas	GTM
Portugal	Europe	10193593.0	70465	1928.0	46290.0	12478.0	42.0	5107.0	171.0	1705474.0	167308.0	Europe	PRT
Poland	Europe	37842308.0	81673	2344.0	65561.0	12099.0	72.0	1308.0	47.0	2374686.0	62752.0	Europe	POL
Nigeria	Africa	206606357.0	56013	1100.0	48836.0	11884.0	7.0	219.0	5.0	306894.0	1485.0	Africa	NGA
Honduras	North America	9919704.0	72306	2206.0	23230.0	37559.0	52.0	4546.0	143.0	109292.0	11018.0	Americas	HND
Bahrain	Asia	1706669.0	66402	231.0	59367.0	2788.0	41.0	25130.0	91.0	876700.0	513691.0	EasternMediterranean	BHR
Japan	Asia	126435859.0	79438	1508.0	71648.0	12360.0	115.0	334.0	8.0	938739.0	7425.0	WesternPacific	JPN
Armenia	Asia	2963811.0	47877	942.0	43026.0	7491.0	nan	13435.0	260.0	171600.0	57898.0	Europe	ARM

Total Cases vs Continents

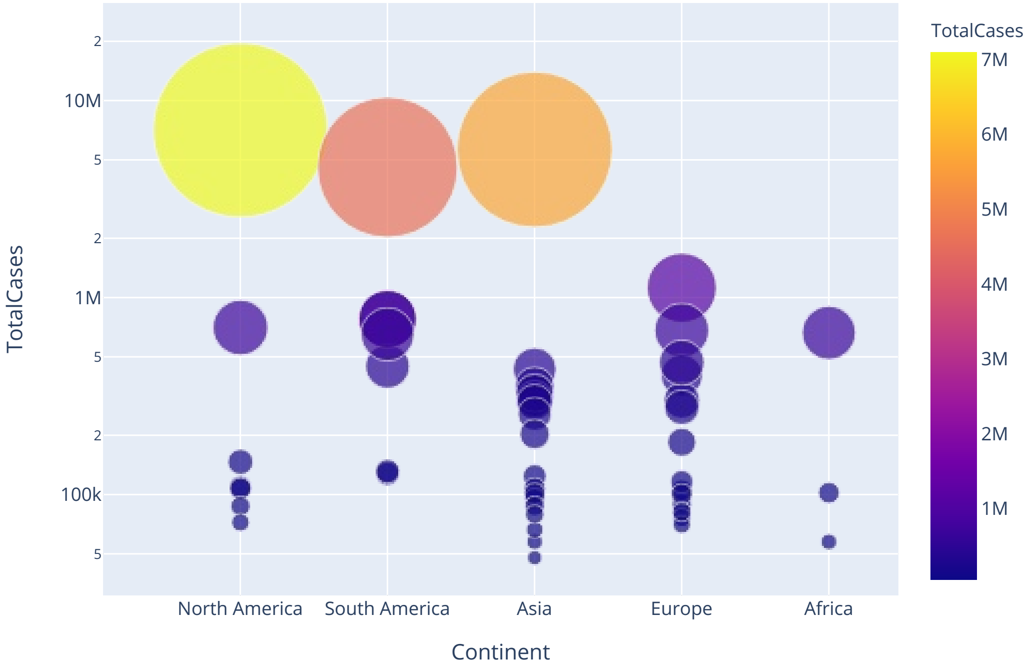
In [6]:

```
px.scatter(df.head(50), x='Continent', y='TotalCases', color='TotalCases', hover_data=['Country/Region', 'Contine
nt'], size='TotalCases', size_max=80)
```



In [7]:

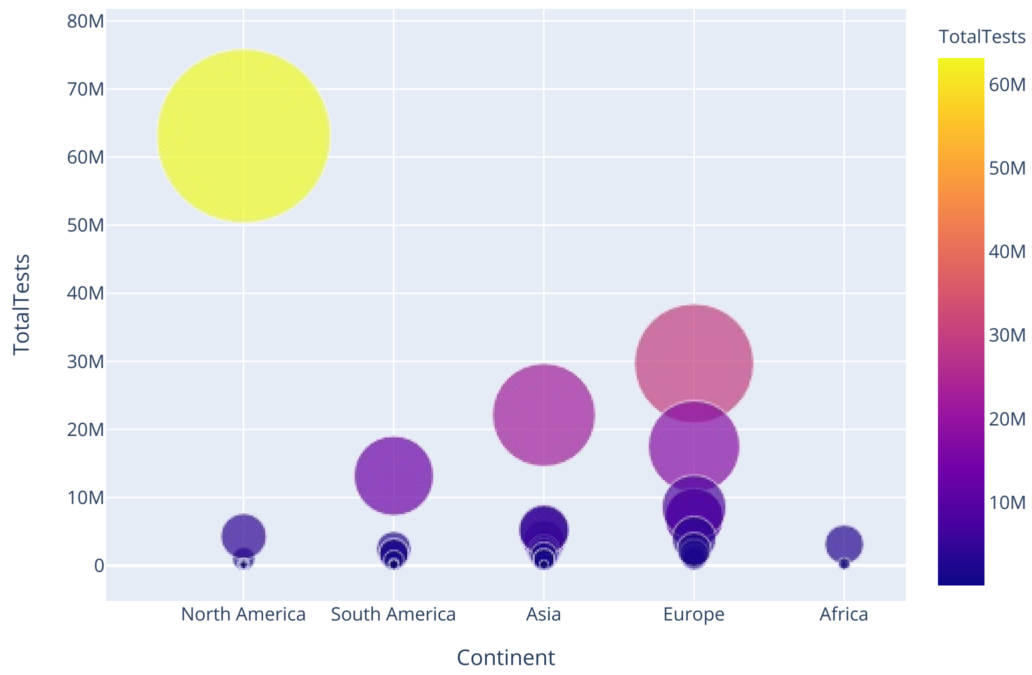
```
px.scatter(df.head(50), x='Continent', y='TotalCases', color='TotalCases', hover_data=['Country/Region', 'Contine
nt'], size='TotalCases', size_max=80, log_y=True)
```



Total Tests vs Continents

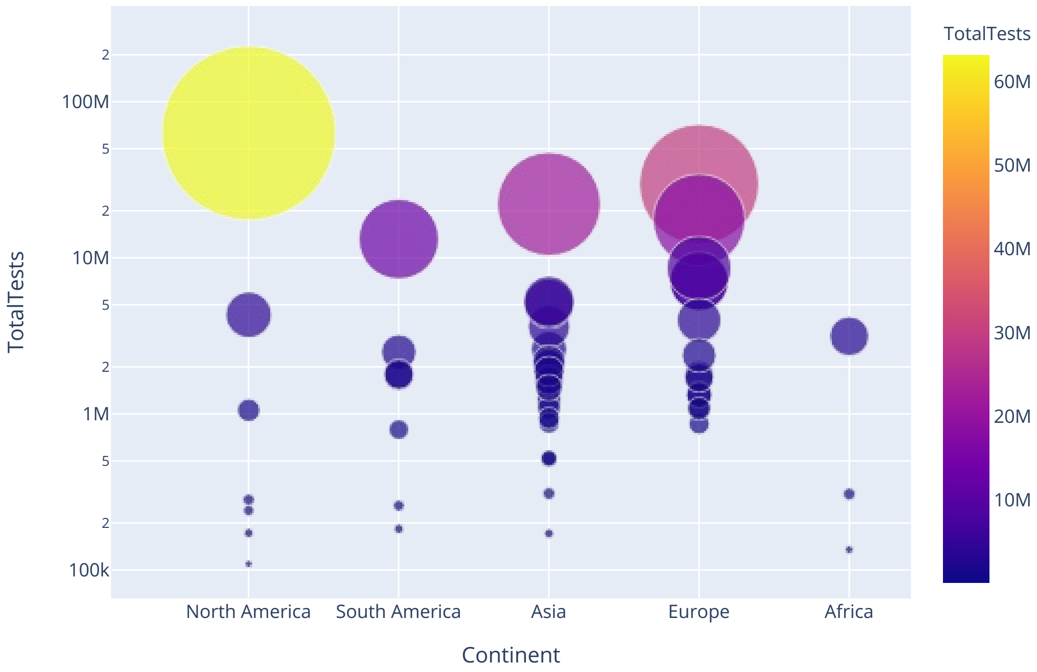
In [8]:

```
px.scatter(df.head(50), x='Continent', y='TotalTests', color='TotalTests', hover_data=['Country/Region', 'Contine
nt'], size='TotalTests', size_max=80)
```



In [9]:

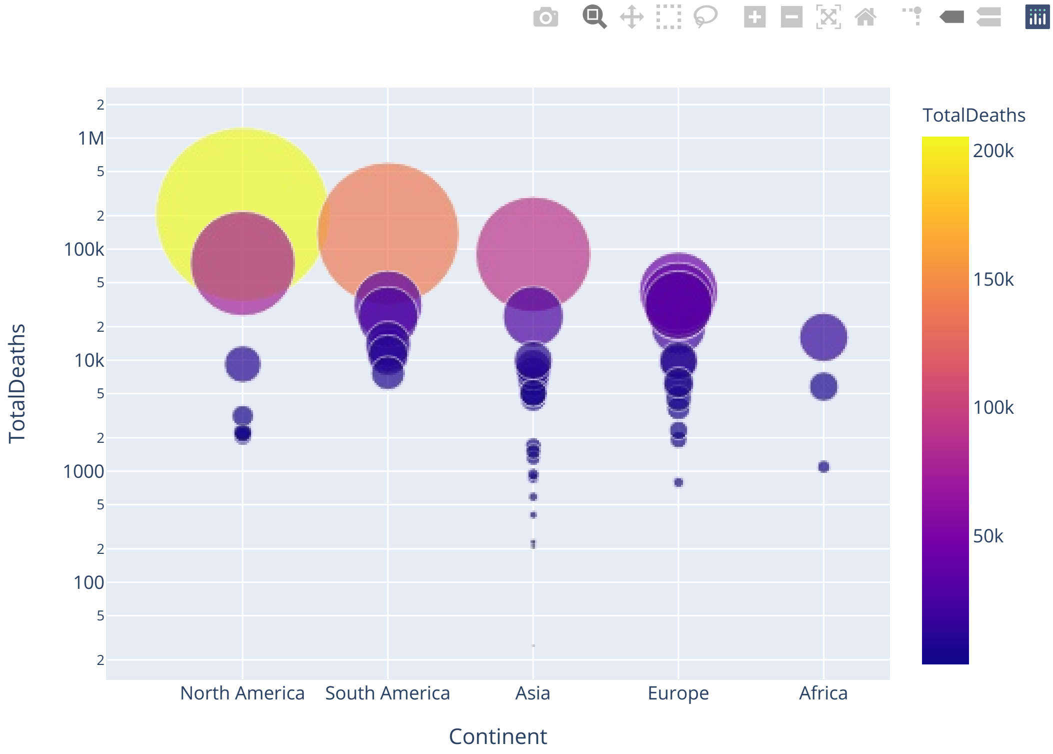
```
px.scatter(df.head(50), x='Continent', y='TotalTests', color='TotalTests', hover_data=['Country/Region', 'Contine
nt'], size='TotalTests', size_max=80, log_y=True)
```



Total Deaths vs Continents

In [10]:

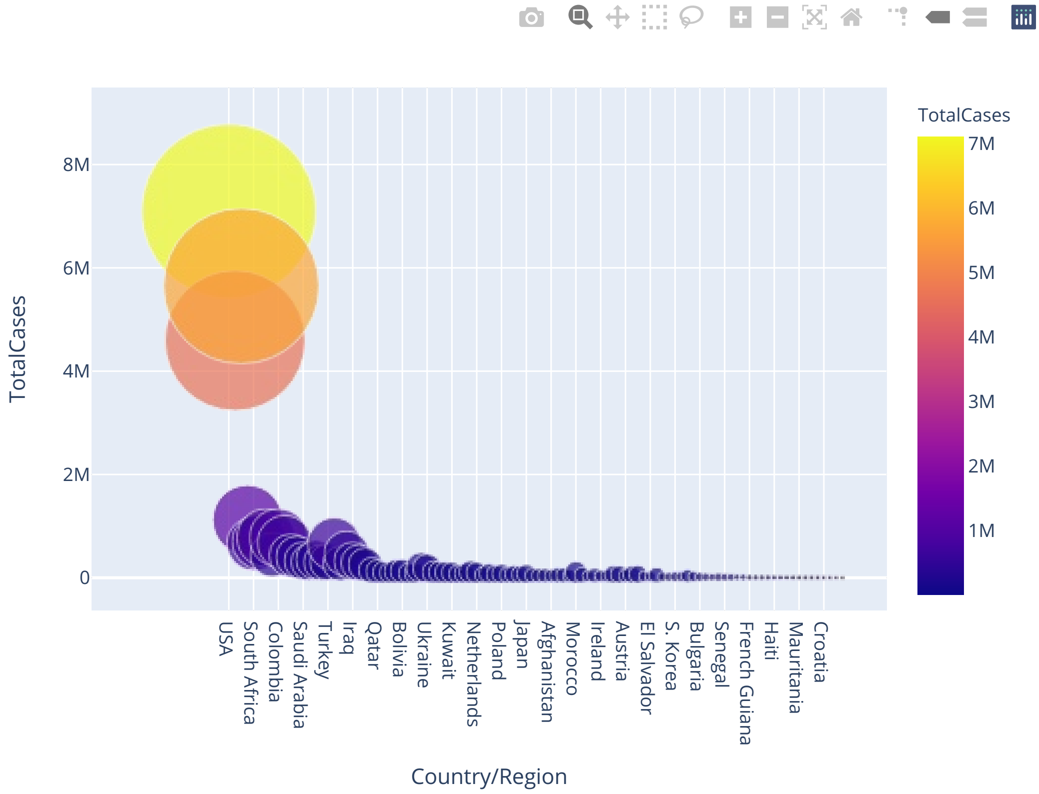
```
px.scatter(df.head(50), x='Continent', y='TotalDeaths', color='TotalDeaths', hover_data=['Country/Region', 'Continent'], size='TotalDeaths', size_max=80, log_y=True)
```



Total Cases vs Countries

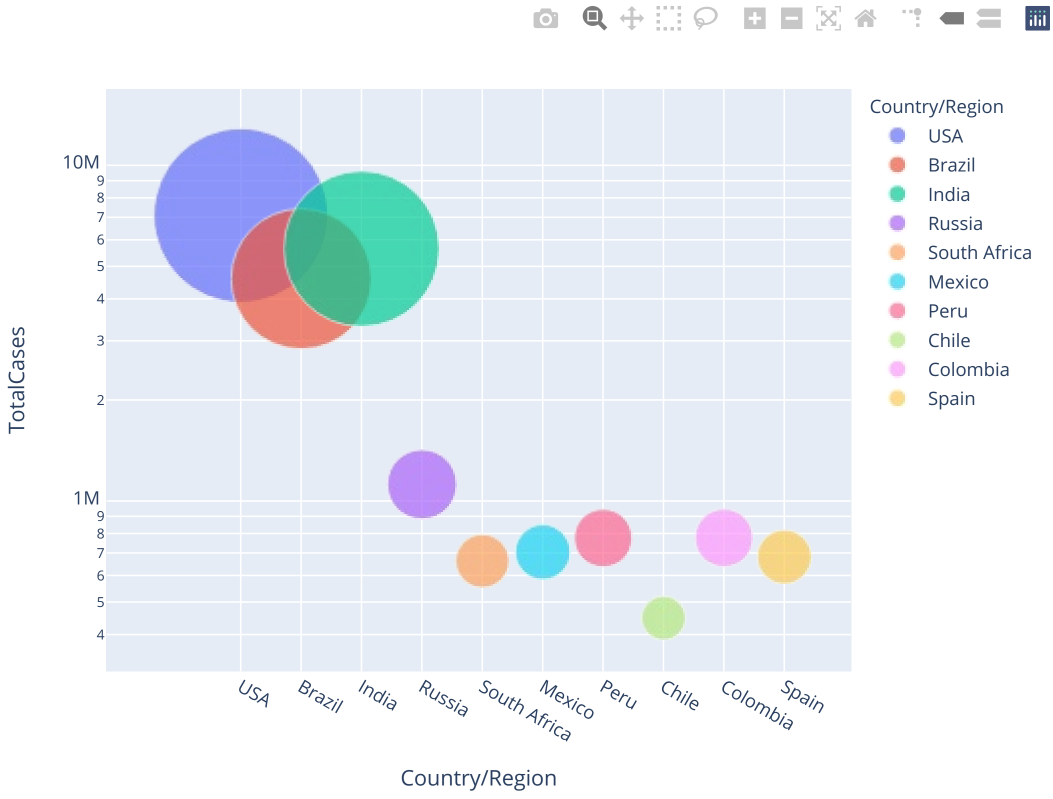
In [11]:

```
px.scatter(df.head(100), x='Country/Region', y='TotalCases', color='TotalCases', hover_data=['Country/Region', 'Continent'], size='TotalCases', size_max=80)
```



In [12]:

```
px.scatter(df.head(10), x='Country/Region', y='TotalCases', color='Country/Region', hover_data=['Country/Region',
'Continent'], size='TotalCases', size_max=80, log_y=True)
```



Total Deaths vs countries

In [13]:

```
px.scatter(df.head(10), x='Country/Region', y='TotalDeaths', color='Country/Region', hover_data=['Country/Region'
, 'Continent'], size='TotalDeaths', size_max=80)
```

Total Tests/1M vs Countries

In [14]:

```
px.scatter(df.head(30), x='Country/Region', y='Tests/1M pop', color='Country/Region', hover_data=['Country/Region
', 'Continent'], size='Tests/1M pop', size_max=80)
```

In [15]:

```
px.scatter(df.head(30), x='Country/Region', y='Tests/1M pop', color='Tests/1M pop', hover_data=['Country/Region',
'Continent'], size='Tests/1M pop', size_max=80)
```

Total Cases vs Deaths

In [16]:

```
px.scatter(df.head(30), x='TotalCases', y='TotalDeaths', color='TotalDeaths', hover_data=['Country/Region', 'Continent'], size='TotalDeaths', size_max=80)
```

In [17]:

```
px.scatter(df.head(30), x='TotalCases', y='TotalDeaths', color='TotalDeaths', hover_data=['Country/Region', 'Continent'], size='TotalDeaths', size_max=80, log_x=True, log_y=True)
```

Total Tests vs Total Cases

In [18]:

```
px.scatter(df.head(30), x='TotalTests', y='TotalCases', color='TotalTests', hover_data=['Country/Region', 'Continent'], size='TotalTests', size_max=80, log_x=True, log_y=True)
```