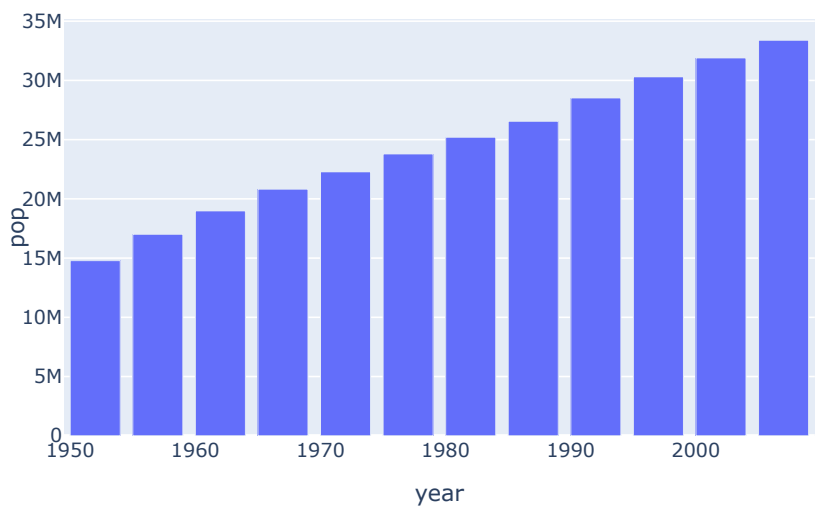
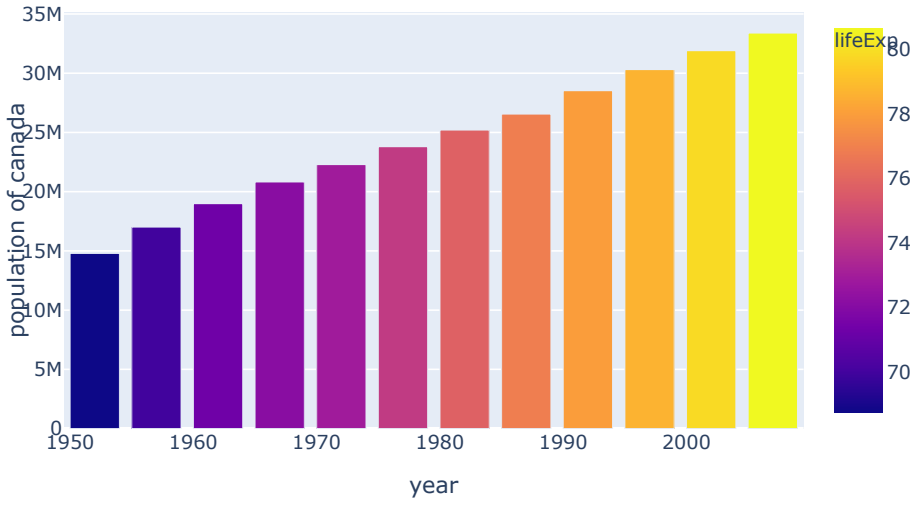
```
import plotly.offline as py
import plotly.graph_objs as go


import matplotlib.pyplot as plt


import pandas as pd
import numpy as np


import plotly.express as px #high level wrapping or creating figures
from plotly.figure_factory import create_table #more aesthetic than usual pandas dataframe


gapminder = px.data.gapminder()
table = create_table(gapminder.head(10))
py.iplot(table)
```

country	continent	year	lifeExp	pop	gdpPercap	iso_alpha	iso_num
Afghanistan	Asia	1952	28.801	8425333	779.4453145	AFG	4
Afghanistan	Asia	1957	30.331999999999997	9240934	820.8530296	AFG	4
Afghanistan	Asia	1962	31.997	10267083	853.1007099999999	AFG	4
Afghanistan	Asia	1967	34.02	11537966	836.1971382	AFG	4
Afghanistan	Asia	1972	36.088	13079460	739.9811057999999	AFG	4
Afghanistan	Asia	1977	38.438	14880372	786.11336	AFG	4
Afghanistan	Asia	1982	39.854	12881816	978.0114388000001	AFG	4
Afghanistan	Asia	1987	40.821999999999996	13867957	852.3959447999999	AFG	4
Afghanistan	Asia	1992	41.674	16317921	649.3413952000001	AFG	4
Afghanistan	Asia	1997	41.763000000000005	22227415	635.341351	AFG	4

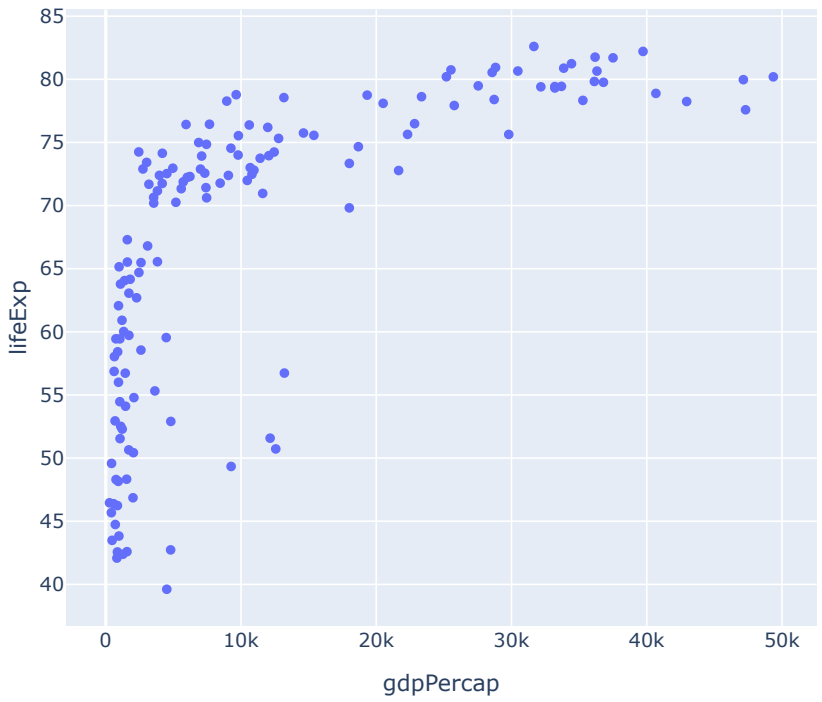
```
data_canada = px.data.gapminder().query('country == "Canada"')
fig = px.bar(data_canada, x = 'year', y = 'pop', height = 400)
fig.show()
```



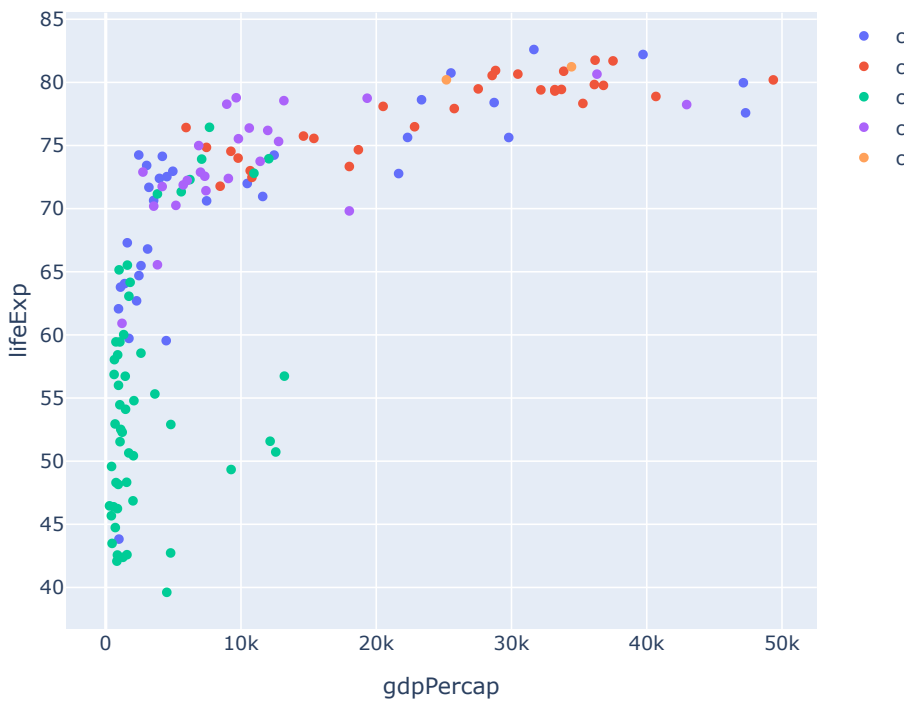

```
fig = px.bar(data_canada, x = 'year', y = 'pop', height = 400, hover_data=['lifeExp', 'gdpPercap'], color='lifeExp',
             labels = {'pop': 'population of canada'})
fig.show()
```



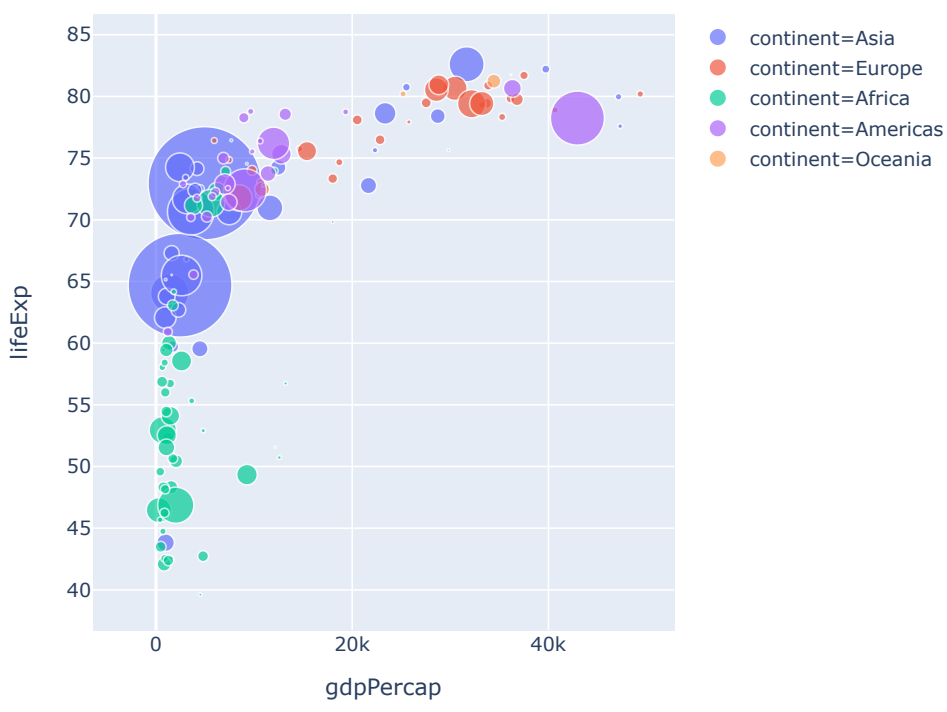

```
gap2007 = px.data.gapminder().query('year == "2007"')


px.scatter(gap2007, x = 'gdpPercap', y = 'lifeExp')
```



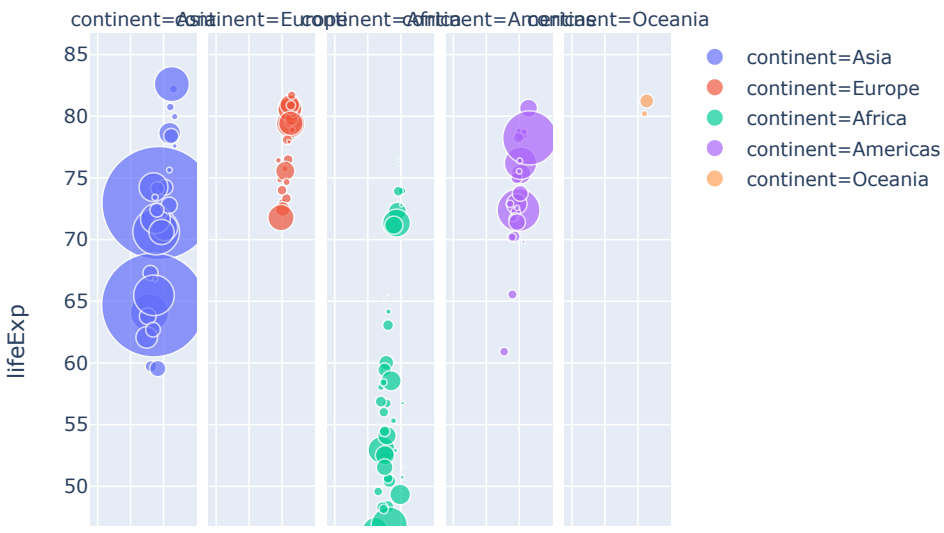

```
px.scatter(gap2007, x = 'gdpPercap', y = 'lifeExp', color = 'continent')
```



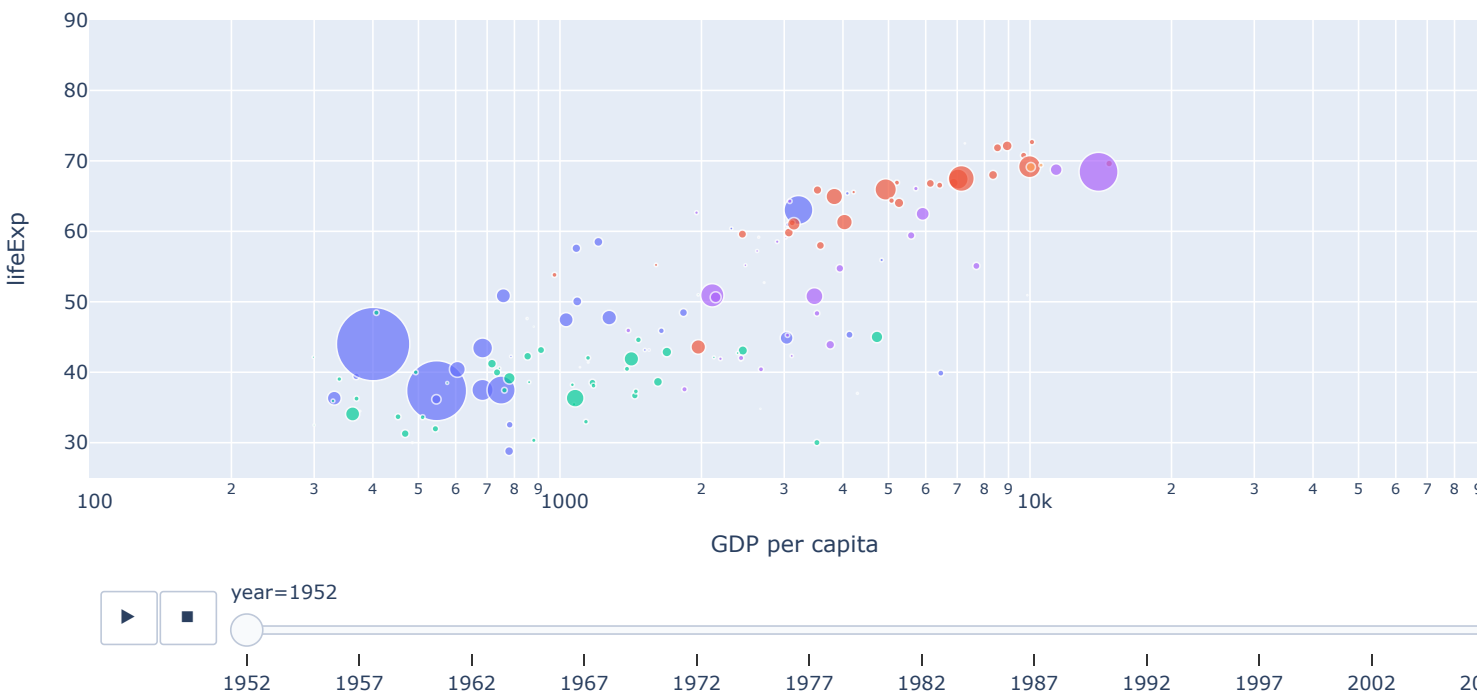

```
px.scatter(gap2007, x = 'gdpPercap', y = 'lifeExp', color = 'continent', size = 'pop', size_max= 50, hover_name='country')
```



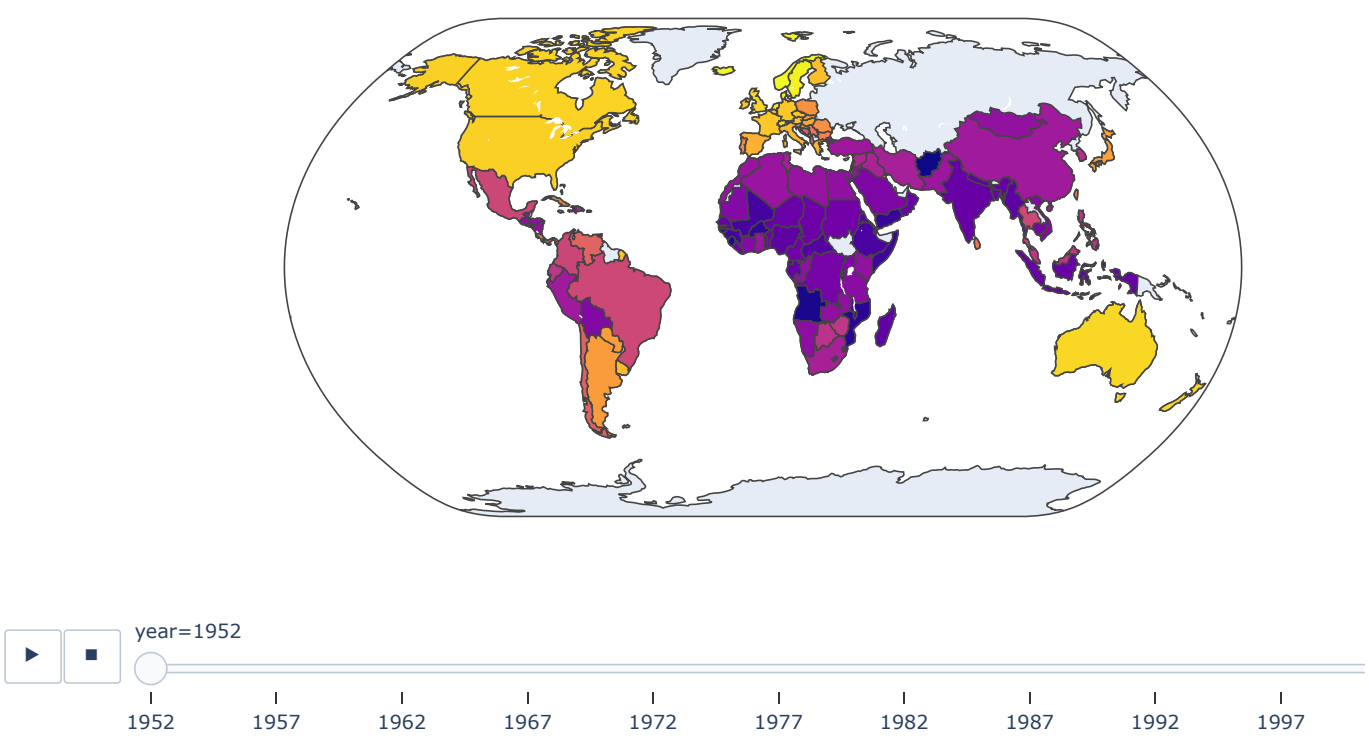

```
px.scatter(gap2007, x = 'gdpPercap', y = 'lifeExp', color = 'continent', size = 'pop', size_max= 50, hover_name='country',
           facet_col = 'continent', log_x = True)
```



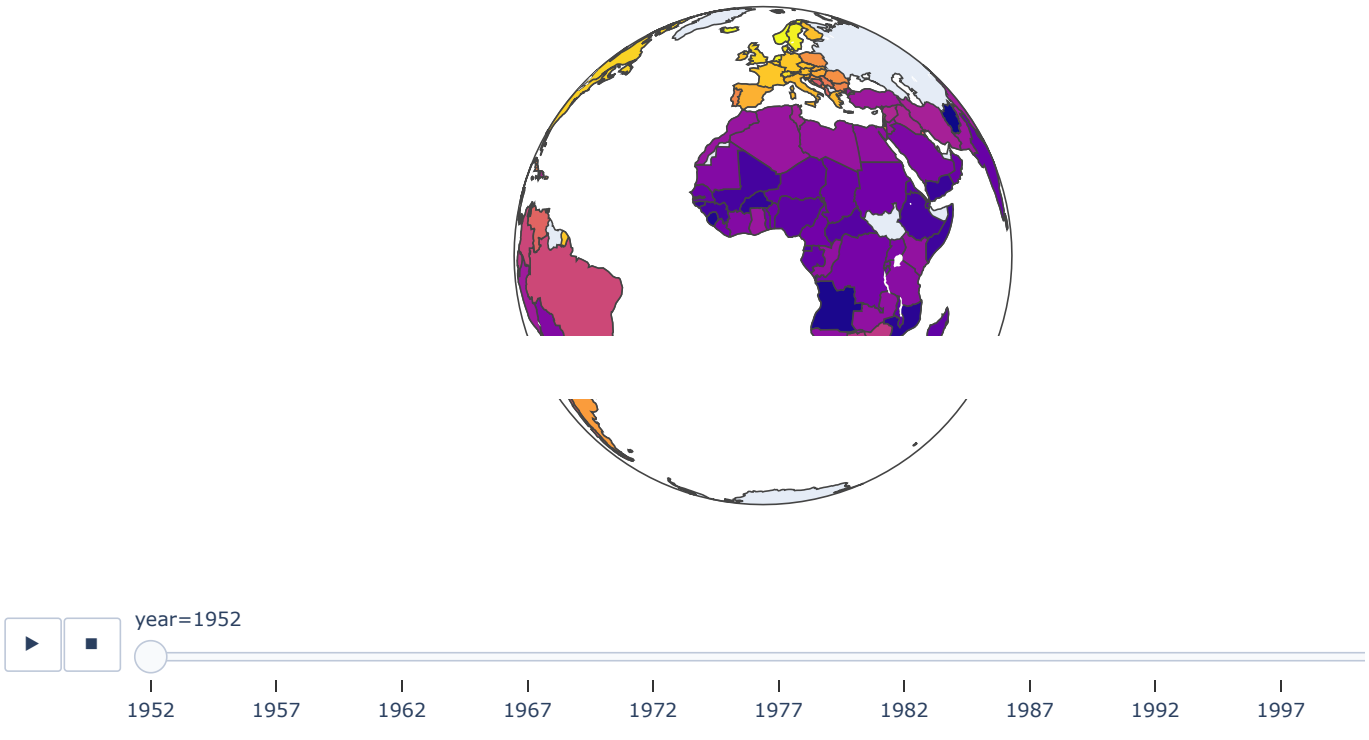

```
px.scatter(gapminder, x = 'gdpPercap', y = 'lifeExp', color = 'continent', size = 'pop', size_max= 50, hover_name='country',
           animation_frame = 'year', animation_group = 'country', log_x = True, range_x = [100, 100000], range_y = [25, 90],
           labels = {'pop':'Population', 'gdpPercap':'GDP per capita'}, height = 500)
```




```
px.choropleth(gapminder, locations = 'iso_alpha', color = 'lifeExp', hover_name = 'country',
              animation_frame = 'year', color_continuous_scale = px.colors.sequential.Plasma, projection = 'natural earth')
```




```
px.choropleth(gapminder, locations = 'iso_alpha', color = 'lifeExp', hover_name = 'country',
              animation_frame = 'year', color_continuous_scale = px.colors.sequential.Plasma, projection = 'orthographic')
```


year=1952
1952
1957
1962
1967
1972
1977
1982
1987
1992
1997