Line Charts

In [ ]:
```
import plotly.express as px

df = px.data.gapminder().query("country=='Canada'")
fig = px.line(df, x="year", y="lifeExp", title='Life expectancy in Canada')
fig.show()
```

In [ ]:
```
print(dir(px))
```

In [ ]:
```
print(dir(px.data))
```

In [ ]:
```
for i in dir(px.data):
    try:
        exec(f"""display(px.data.{i}())""")
        print(i)
    except:
        pass
```

In [ ]:
```
df = px.data.gapminder()
df
```

Type *Markdown* and LaTeX: α^2

In [ ]:
```
fig = px.line(data_frame=df,
       x = 'country',
       y = 'pop',
       line_group='continent',
       color='continent',
       line_dash='continent',
        #symbol='continent',
        hover_name='continent',
        markers=True,
#         animation_frame='year',
        orientation='h',
        title='WORLD DATA',
        width=990,height=600)
fig.show()
```

In [ ]:
```

```

Bar Charts

In [ ]:
```
df = px.data.medals_long()
df.head(1)
```

In [ ]:
```
# px.bar(data_frame=df,x='nation',y='count',color='medal')
```

In [ ]:
```
df = px.data.gapminder().query("country == 'Canada'")
fig = px.bar(df, x='year', y='pop',
             hover_data=['lifeExp', 'gdpPercap'], color='lifeExp',
             labels={'pop':'population of Canada'}, height=400,
            text="pop")
fig.show()
```

In [ ]:
```
df = px.data.tips()
fig = px.bar(df, x="sex", y="total_bill",
             color='smoker', barmode='group',
             height=400,
             )
fig.show()
```

In [ ]:
```
df = px.data.tips()
fig = px.histogram(df, x="sex", y="total_bill",
             color='smoker', barmode='group',
#            histfunc='avg',
             height=400,
            text_auto=True,
            )
fig.show()
```

In [ ]:
```
import plotly.express as px

df = px.data.gapminder().query("continent == 'Europe' and year == 2007 and pop > 2.e6")
fig = px.bar(df, y='pop', x='country', text_auto='.2s',
            title="Default: various text sizes, positions and angles")
fig.show()
```

In [ ]:
```
df = px.data.gapminder().query("continent == 'Europe' and year == 2007 and pop > 2.e6")
fig = px.bar(df, y='pop', x='country', text_auto='.2s',
            title="Controlled text sizes, positions and angles")
fig.update_traces(textfont_size=12, textangle=0, textposition="outside", cliponaxis=False)
fig.show()
```

In [ ]:
```
import plotly.graph_objects as go
```

In [ ]:
```
print(dir(go))
```

In [ ]:
```
1
```

In [ ]:
```
import plotly.graph_objects as go

import pandas as pd
df = pd.read_csv('https://raw.githubusercontent.com/plotly/datasets/master/finance-charts-apple.csv')

fig = go.Figure([go.Scatter(x=df['Date'], y=df['AAPL.High'])])
fig.show()
```

In [ ]:
```
df
```

In [ ]:
```
import plotly.express as px
df = px.data.tips()
fig = px.sunburst(df, path=['day', 'time', 'sex','smoker'], values='total_bill',color='day')
fig.show()
```

In [ ]:
```
import plotly.graph_objects as go

fig = go.Figure(
go.Scatter(
    x=[1, 2, 3, 4], y=[10, 15,5,12],
    mode='markers',
    marker_size=[40, 60, 8, 10]))

fig.show()
```

In [ ]:
```
1
```

In [ ]:
```
df
```

In [ ]:
```
df
```

In [ ]:
```
df = px.data.stocks()
df = pd.read_csv('https://raw.githubusercontent.com/plotly/datasets/master/finance-charts-apple.csv')
fig = px.line(df, x=df['Date'], y=df['AAPL.High'])
fig.show()
```

In [ ]:
```

df = px.data.stocks(indexed=True)-1
fig = px.line(df, facet_col="company", facet_col_wrap=2)
fig.show()
```

In [ ]:
```
df = pd.read_csv('https://raw.githubusercontent.com/plotly/datasets/master/finance-charts-apple.csv')

fig = go.Figure(data=[go.Candlestick(x=df['Date'],
                open=df['AAPL.Open'],
                high=df['AAPL.High'],
                low=df['AAPL.Low'],
                close=df['AAPL.Close'])])
fig.update_layout(xaxis_rangeslider_visible=False)
fig.update_layout()

fig.show()
```

In [ ]:
```
fig = go.Figure(go.Indicator(
    mode = "gauge+number",
    value = 270,
    domain = {'x': [0, 1], 'y': [0, 1]},
    title = {'text': "Speed"}))

fig.show()
```

In [ ]:
```

```