

Question 5: Plot Tesla Stock Graph

Use the `make_graph` function to graph the Tesla Stock Data, also provide a title for the graph. The structure to call the `make_graph` function is `make_graph(tesla_data, tesla_revenue, 'Tesla')`. Note the graph will only show data upto June 2021.

```
import plotly.graph_objects as go
from plotly.subplots import make_subplots
import yfinance as yf
import pandas as pd

stock_data = yf.download("TSLA", start="2020-01-01", end="2021-09-30", progress=False)
revenue_data = yf.download("TSLA", start="2020-01-01", end="2021-09-30", progress=False)
stock_data.reset_index(inplace=True)
revenue_data.reset_index(inplace=True)

def make_graph(stock_data, revenue_data, stock):
    fig = make_subplots(rows=2, cols=1,
                        shared_xaxes=True,
                        subplot_titles=("Historical Share Price", "Historical Revenue"),
                        vertical_spacing=.3)

    stock_data_specific = stock_data[stock_data.Date <= '2021-06-14']
    revenue_data_specific = revenue_data[revenue_data.Date <= '2021-04-30']

    fig.add_trace(go.Scatter(
        x=pd.to_datetime(stock_data_specific.Date, infer_datetime_format=True),
        y=stock_data_specific.Close.astype("float"), name="Share Price", row=1, col=1))

    fig.add_trace(go.Scatter(x=pd.to_datetime(revenue_data_specific.Date, infer_datetime_format=True),
        y=revenue_data_specific.Volume.astype("float"),
        name="Volume"), row=2, col=1)

    fig.update_xaxes(title_text="Date", row=1, col=1)
    fig.update_xaxes(title_text="Date", row=2, col=1)
    fig.update_yaxes(title_text="Price ($US)", row=1, col=1)
    fig.update_yaxes(title_text="Revenue ($US Millions)", row=2, col=1)

    fig.update_layout(showlegend=False,
                      height=900,
                      title=stock,
                      xaxis_rangeslider_visible=True)

    fig.show()

make_graph(stock_data, revenue_data, 'Tesla')
```

