Google_stock_analysis

April 4, 2023

[ ]:
```
import pandas as pd
import yfinance as yf
import datetime
from datetime import date, timedelta
import plotly.graph_objects as go
import plotly.express as px

today = date.today()

d1 = today.strftime("%Y-%m-%d")
end_date = d1
d2 = date.today() - timedelta(days=365)
d2 = d2.strftime("%Y-%m-%d")
start_date = d2

data = yf.download('GOOG',
                   start=start_date,
                   end=end_date,
                   progress=False)
data["Date"] = data.index
data = data[["Date", "Open", "High", "Low",
             "Close", "Adj Close", "Volume"]]
data.reset_index(drop=True, inplace=True)
print(data.head())
```

```
        Date        Open        High         Low       Close   Adj Close  \
0 2022-04-04  140.824493  144.043747  140.824493  143.642502  143.642502
1 2022-04-05  143.399506  143.589996  140.943497  141.063004  141.063004
2 2022-04-06  139.161499  139.848495  136.418106  137.175995  137.175995
3 2022-04-07  136.617996  137.701508  134.857254  136.464996  136.464996
4 2022-04-08  136.250000  136.250000  133.752502  134.010498  134.010498

     Volume
0  19076000
1  19256000
2  23574000
3  19448000
4  16434000
```

[ ]:
```
figure = go.Figure(data=[go.Candlestick(x=data["Date"],
                                        open=data["Open"], high=data["High"],
                                        low=data["Low"], close=data["Close"])])
figure.update_layout(title = "Google Stock Price Analysis",␣
 ↪xaxis_rangeslider_visible=False)
figure.show()
```

[ ]:
```
1
figure = px.bar(data, x = "Date", y= "Close")
2
figure.show()
```

[ ]:
```
figure = px.line(data, x='Date', y='Close',
                 title='Stock Market Analysis with Rangeslider')
figure.update_xaxes(rangeslider_visible=True)
figure.show()
```

[ ]:
```
figure = px.line(data, x='Date', y='Close',
                 title='Stock Market Analysis with Time Period Selectors')

figure.update_xaxes(
    rangeselector=dict(
        buttons=list([
            dict(count=1, label="1m", step="month", stepmode="backward"),
            dict(count=6, label="6m", step="month", stepmode="backward"),
            dict(count=3, label="3m", step="month", stepmode="backward"),
            dict(count=1, label="1y", step="year", stepmode="backward"),
            dict(step="all")
        ])
    )
)
figure.show()
```

[ ]:
```
figure = px.scatter(data, x='Date', y='Close', range_x=['2021-07-12',␣
 ↪'2022-07-11'],
                 title="Stock Market Analysis by Hiding Weekend Gaps")
figure.update_xaxes(
    rangebreaks=[
        dict(bounds=["sat", "sun"])
    ]
)
figure.show()
```

[ ]:
```

```