In [1]:
```
import import_ipynb
```

In [2]:
```
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
```

In [3]:
```
!pip install yfinance
```

```
Requirement already satisfied: yfinance in c:\users\user21\anaconda3\lib\site-packages (0.2.3)
Requirement already satisfied: html5lib>=1.1 in c:\users\user21\anaconda3\lib\site-packages (from yfinance) (1.1)
Requirement already satisfied: numpy>=1.16.5 in c:\users\user21\anaconda3\lib\site-packages (from yfinance) (1.21.5)
Requirement already satisfied: requests>=2.26 in c:\users\user21\anaconda3\lib\site-packages (from yfinance) (2.28.1)
Requirement already satisfied: multitasking>=0.0.7 in c:\users\user21\anaconda3\lib\site-packages (from yfinance) (0.0.11)
Requirement already satisfied: lxml>=4.9.1 in c:\users\user21\anaconda3\lib\site-packages (from yfinance) (4.9.1)
Requirement already satisfied: cryptography>=3.3.2 in c:\users\user21\anaconda3\lib\site-packages (from yfinance) (37.0.1)
Requirement already satisfied: beautifulsoup4>=4.11.1 in c:\users\user21\anaconda3\lib\site-packages (from yfinance) (4.11.1)
Requirement already satisfied: cffi>=1.12 in c:\users\user21\anaconda3\lib\site-packages (from cryptography>=3.3.2->yfinance) (1.15.1)
Requirement already satisfied: webencodings in c:\users\user21\anaconda3\lib\site-packages (from html5lib>=1.1->yfinance) (0.5.1)
Requirement already satisfied: six>=1.9 in c:\users\user21\anaconda3\lib\site-packages (from html5lib>=1.1->yfinance) (1.16.0)
Requirement already satisfied: python-dateutil>=2.8.1 in c:\users\user21\anaconda3\lib\site-packages (from pandas>=1.3.0->yfinance) (2.8.2)
Requirement already satisfied: idna<4,>=2.5 in c:\users\user21\anaconda3\lib\site-packages (from requests>=2.26->yfinance) (3.3)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\user21\anaconda3\lib\site-packages (from requests>=2.26->yfinance) (2022.9.14)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\users\user21\anaconda3\lib\site-packages (from requests>=2.26->yfinance) (2.0.4)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\user21\anaconda3\lib\site-packages (from requests>=2.26->yfinance) (1.26.11)
Requirement already satisfied: pycparser in c:\users\user21\anaconda3\lib\site-packages (from cffi>=1.12->cryptography>=3.3.2->yfinance) (2.21)
```

In [4]:
```
today = date.today()
```

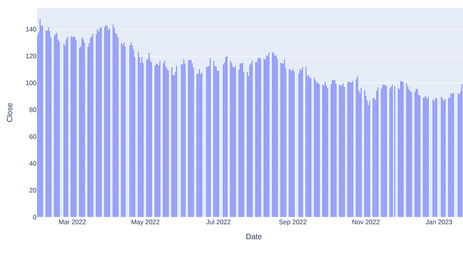
In [5]:
```
d1 = today.strftime("%Y-%m-%d")
end_date = d1
d2 = date.today() - timedelta(days=365)
d2 = d2.strftime("%Y-%m-%d")
start_date = d2
```

In [6]:
```
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())
```

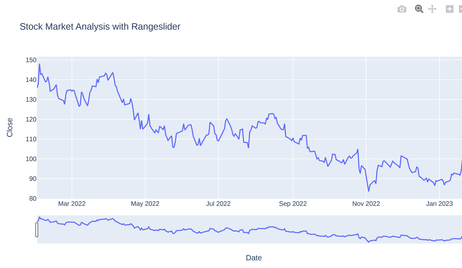
```
        Date       Open       High        Low      Close  Adj Close  \
0 2022-01-31  134.197998  135.843506  132.274002  135.698502  135.698502
1 2022-02-01  137.835007  138.199997  134.568253  137.878494  137.878494
2 2022-02-02  151.863495  152.100006  145.557495  148.036499  148.036499
3 2022-02-03  145.294998  149.117706  142.205002  142.650497  142.650497
4 2022-02-04  143.016998  144.535248  139.817505  143.016006  143.016006

     Volume
0  34856000
1  51204000
2  89750000
3  56930000
4  49224000
```

In [7]:
```
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()
```

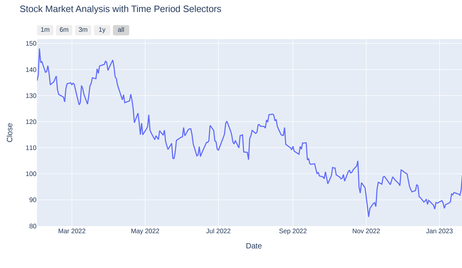
In [8]:
```
figure = px.bar(data, x = "Date", y= "Close")
figure.show()
```



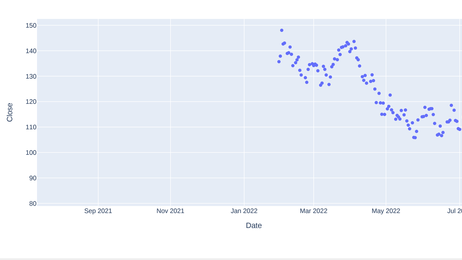
In [9]:
```
figure = px.line(data, x='Date', y='Close',
                 title='Stock Market Analysis with Rangeslider')
figure.update_xaxes(rangeslider_visible=True)
figure.show()
```



In [10]:
```
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()
```



In [11]:
```
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()
```



In [ ]:
```
```

In [ ]:
```
```