In [56]:
```
import pandas_datareader.data as web
import datetime
import matplotlib.pyplot as plt
```

In [57]:
```
google.to_csv('Google_stock.csv')
```

In [58]:
```
start = datetime.datetime(2021,1,1) #1st Jan
end   = datetime.datetime(2022,5,1 )#1st May
```

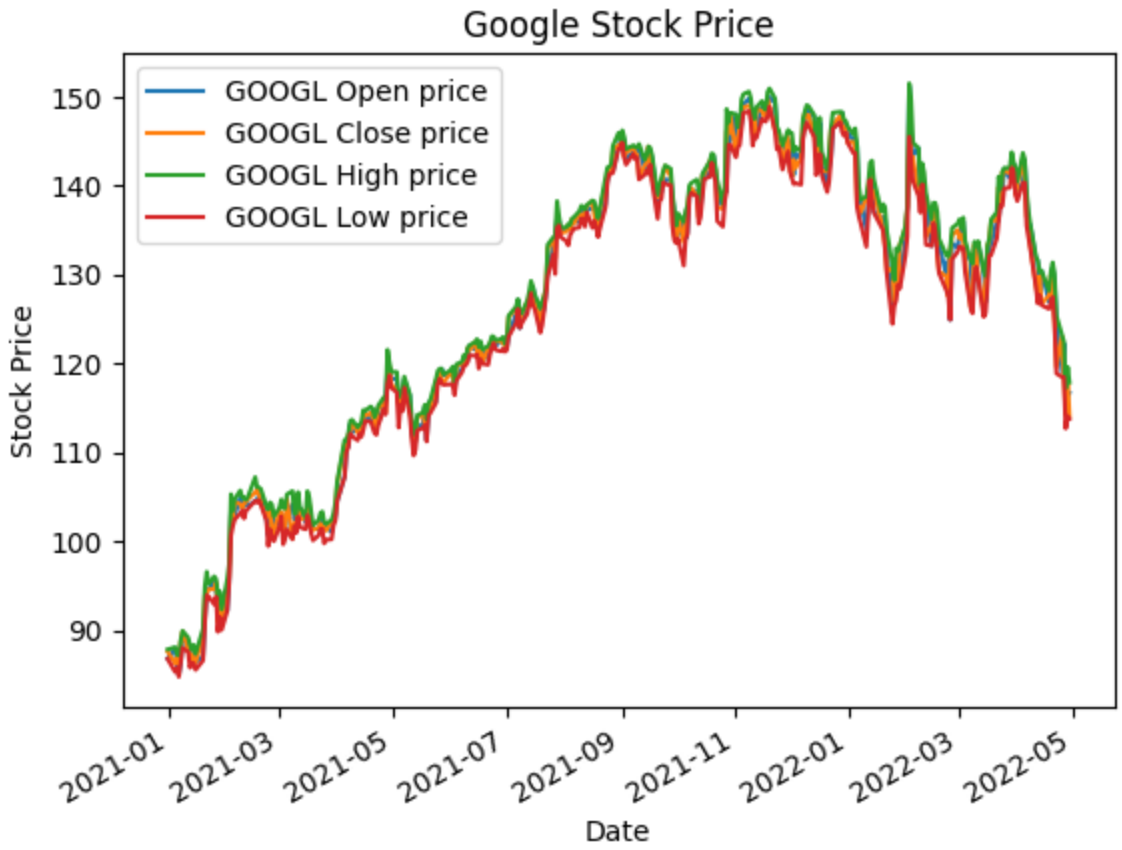
In [59]:
```
google = web.DataReader("GOOGL",'yahoo',start,end)

#GOOGL is the name of the stock
#yahoo is form where we seached
#followed by start and end date
```

In [60]:
```
#google stock data
google.head()
```

Out[60]:

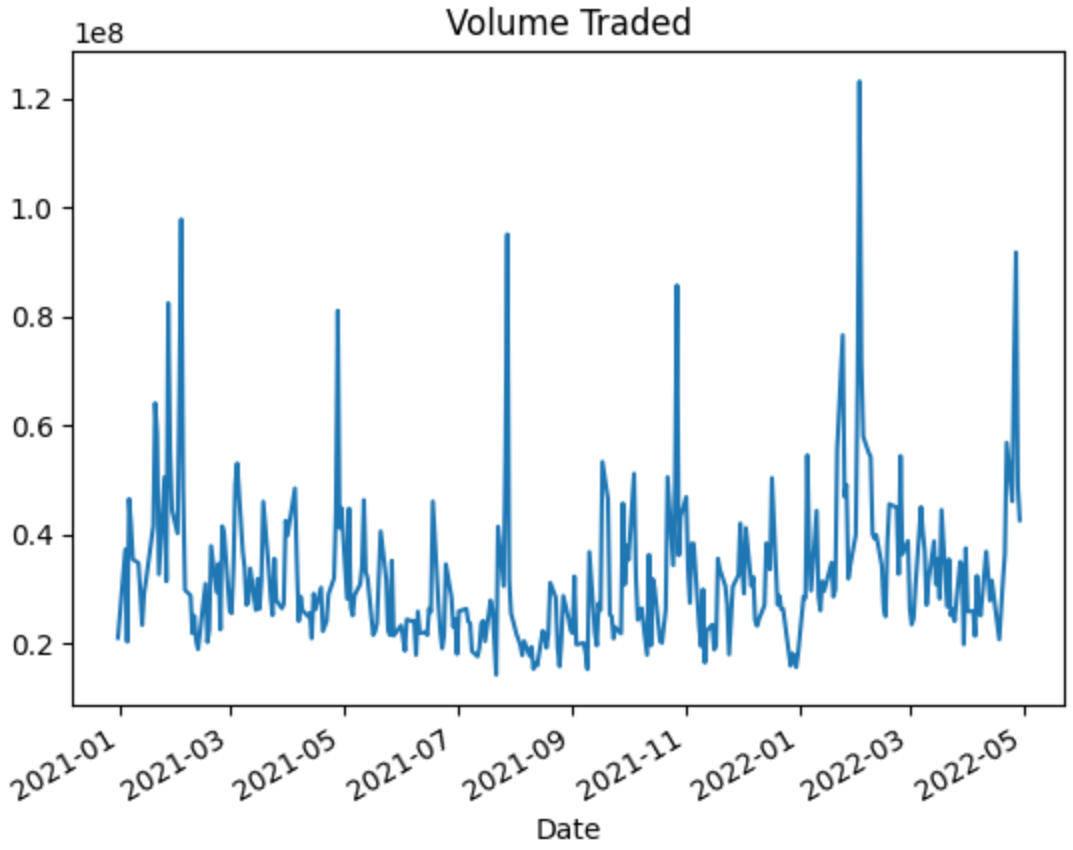
Date	High	Low	Open	Close	Volume	Adj Close
2020-12-31	87.875000	86.804497	86.863503	87.632004	21070000	87.632004
2021-01-04	88.124496	85.357002	88.000000	86.306503	37324000	86.306503
2021-01-05	87.341499	85.845001	86.254501	87.002502	20360000	87.002502
2021-01-06	87.198502	84.805000	85.013000	86.143997	46588000	86.143997
2021-01-07	88.890999	86.337997	86.337997	88.717003	41936000	88.717003

In [61]:
```
#Stock price visualization
google['Open'].plot(label = 'GOOGL Open price')
google['Close'].plot(label = 'GOOGL Close price')
google['High'].plot(label = 'GOOGL High price')
google['Low'].plot(label = 'GOOGL Low price')
plt.legend()
plt.title('Google Stock Price')
plt.ylabel('Stock Price')
plt.show()
```



In [62]:
```
#Volume traded
google['Volume'].plot()
plt.title('Volume Traded')
```

Out[62]:
```
Text(0.5, 1.0, 'Volume Traded')
```



In [63]:
```
#to find max
google['Volume'].argmax()
```

Out[63]: 274

In [64]:
```
google.iloc[[google['Volume'].argmax()]]
```

Out[64]:

Date	High	Low	Open	Close	Volume	Adj Close
2022-02-02	151.546494	145.522507	151.25	148.0	123200000	148.0

In [65]:
```
#Market cap
google['Total Traded']=google['Open']*google['Volume']
```

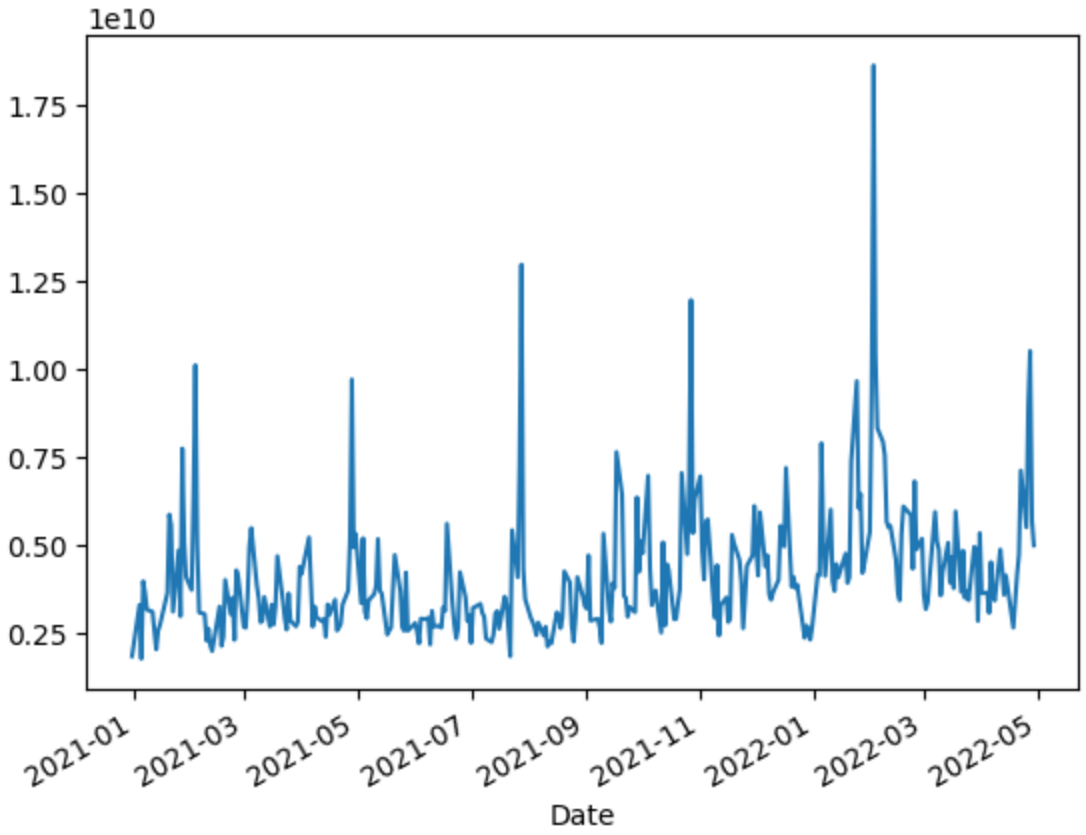
In [66]:
```
google.head()
```

Out[66]:

Date	High	Low	Open	Close	Volume	Adj Close	Total Traded
2020-12-31	87.875000	86.804497	86.863503	87.632004	21070000	87.632004	1.830214e+09
2021-01-04	88.124496	85.357002	88.000000	86.306503	37324000	86.306503	3.284512e+09
2021-01-05	87.341499	85.845001	86.254501	87.002502	20360000	87.002502	1.756142e+09
2021-01-06	87.198502	84.805000	85.013000	86.143997	46588000	86.143997	3.960586e+09
2021-01-07	88.890999	86.337997	86.337997	88.717003	41936000	88.717003	3.620670e+09

In [67]:
```
google['Total Traded'].plot()
```

Out[67]:
```
<AxesSubplot: xlabel='Date'>
```



In [68]:
```
google['Total Traded'].argmax()
```

Out[68]:
```
274
```

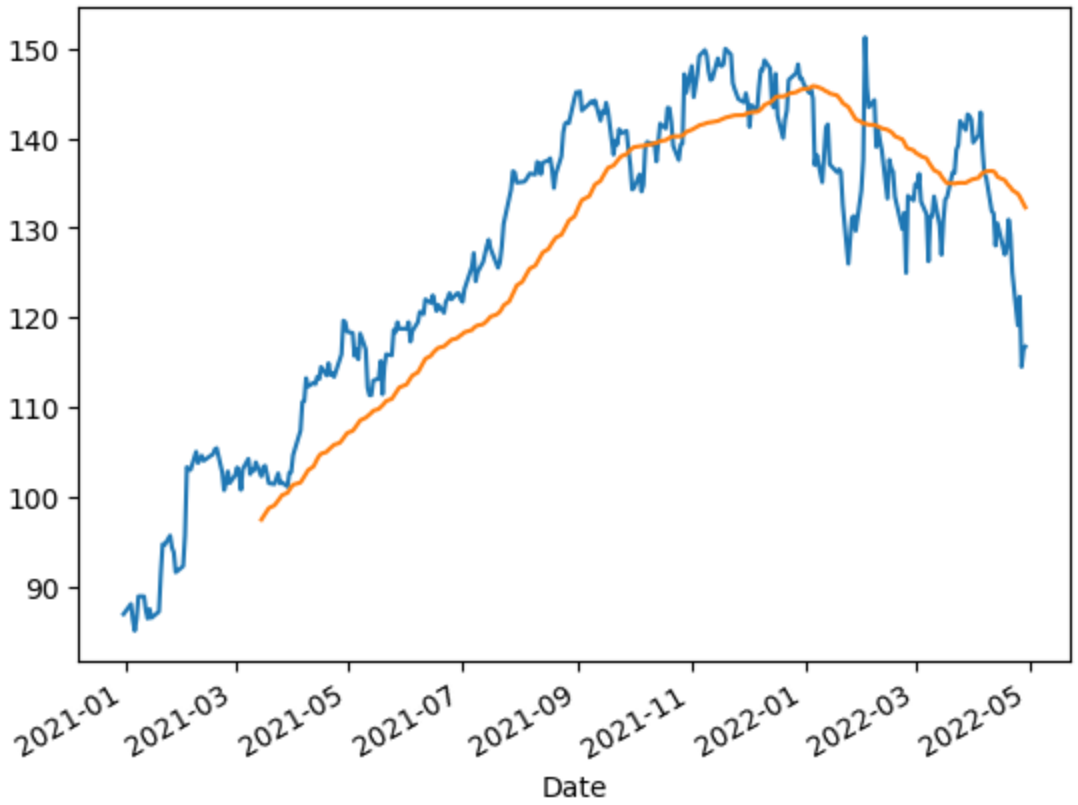
In [69]:
```
google.iloc[[google['Total Traded'].argmax()]]
```

Out[69]:

Date	High	Low	Open	Close	Volume	Adj Close	Total Traded
2022-02-02	151.546494	145.522507	151.25	148.0	123200000	148.0	1.863400e+10

In [70]:
```
#moving Average
google['Open'].plot()
google['MA10']=google['Open'].rolling(50).mean()
google['MA10'].plot(label='MA10')
```

Out[70]:
```
<AxesSubplot: xlabel='Date'>
```



In [71]:
```
#Daily Percentage Change
#rt=pt/pt-1 -1
google['Returns']=(google['Close']/google['Close'].shift(1))-1
```

In [72]:
```
google.head()
```

Out[72]:

Date	High	Low	Open	Close	Volume	Adj Close	Total Traded	MA10
2020-12-31	87.875000	86.804497	86.863503	87.632004	21070000	87.632004	1.830214e+09	NaN
2021-01-04	88.124496	85.357002	88.000000	86.306503	37324000	86.306503	3.284512e+09	NaN
2021-01-05	87.341499	85.845001	86.254501	87.002502	20360000	87.002502	1.756142e+09	NaN
2021-01-06	87.198502	84.805000	85.013000	86.143997	46588000	86.143997	3.960586e+09	NaN
2021-01-07	88.890999	86.337997	86.337997	88.717003	41936000	88.717003	3.620670e+09	NaN

In [73]:
```
google['Returns'].argmax()
```

Out[73]:
```
274
```

In [74]:
```
google.iloc[[google['Returns'].argmax()]]
```

Out[74]:

	High	Low	Open	Close	Volume	Adj Close	Total Traded	MA10	Re

Date									
2022-02-02	151.546494	145.522507	151.25	148.0	123200000	148.0	1.863400e+10	141.626389	0.0

In [ ]: