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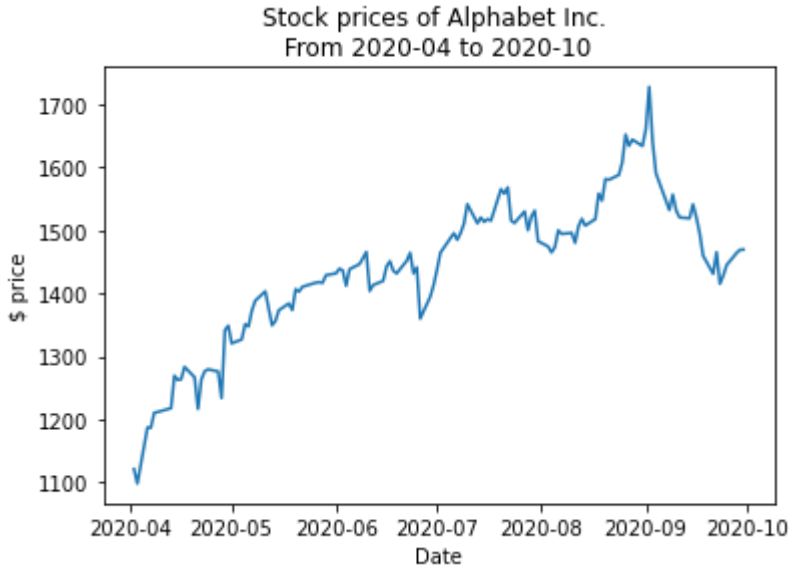
Ese Bonus 1

In [46]:
```
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np

stokes = pd.read_csv('alphabet_stock_data__1_.csv')
stokes["Date"] = pd.to_datetime(stokes["Date"])

stokes = stokes.dropna(how = "all")
mask = (stokes["Date"] > "2020-04") & (stokes["Date"] <= "2020-10")
stokes_filtered = stokes[mask]



plt.plot(stokes_filtered["Date"] , stokes_filtered["Close"])

plt.title("Stock prices of Alphabet Inc. \n From 2020-04 to 2020-10 ")
plt.xlabel("Date")
plt.ylabel("$ price")
```

Out[46]:
```
Text(0, 0.5, '$ price')
```



In [ ]:
```

```

Ese Bonus 2

In [11]:
```
stokes = pd.read_csv('alphabet_stock_data__1_.csv')

stokes = stokes.dropna(how = "all")
stokes
```

Out[11]:

	Date	Open	High	Low	Close	Adj Close	Volume
0	2020-04-01	1122.000000	1129.689941	1097.449951	1105.619995	1105.619995	2343100
1	2020-04-02	1098.260010	1126.859985	1096.400024	1120.839966	1120.839966	1964900
2	2020-04-03	1119.015015	1123.540039	1079.810059	1097.880005	1097.880005	2313400
3	2020-04-06	1138.000000	1194.660034	1130.939941	1186.920044	1186.920044	2664700
4	2020-04-07	1221.000000	1225.000000	1182.229980	1186.510010	1186.510010	2387300
...	...	...	...	...	...	...	...
122	2020-09-24	1411.030029	1443.708984	1409.849976	1428.290039	1428.290039	1450200
123	2020-09-25	1432.630005	1450.000000	1413.339966	1444.959961	1444.959961	1323000
124	2020-09-28	1474.209961	1476.800049	1449.301025	1464.520020	1464.520020	2007900
125	2020-09-29	1470.390015	1476.662964	1458.805054	1469.329956	1469.329956	978200
126	2020-09-30	1466.800049	1489.750000	1459.880005	1469.599976	1469.599976	1700600

127 rows × 7 columns

In [47]:
```
n_bins = 200

mask = (stokes["Date"] > "2020-03") & (stokes["Date"] <= "2020-08")
stokes_filtered = stokes[mask]
fig = plt.hist( [stokes_filtered["Open"] ,stokes_filtered["Close"] ,stokes_filtered["High"], stokes_filtered["Low"]] \
               ,bins = n_bins, stacked = True)

plt.title("Opening/Closing/High/Low stock prices of Alphabet Inc., \n From 2020-03 to 2020-08 ")
plt.xlabel("Date")
```

```
plt.ylabel("$ price")
plt.legend(["Open","Close","High","Low"])
```

Out[47]: <matplotlib.legend.Legend at 0x23f8a270700>