

```
!pip install alpha_vantage
```

```
Collecting alpha_vantage
  Downloading alpha_vantage-3.0.0-py3-none-any.whl.metadata (12 kB)
Requirement already satisfied: aiohttp in /usr/local/lib/python3.10/dist-packages (from alpha_vantage) (3.11.10)
Requirement already satisfied: requests in /usr/local/lib/python3.10/dist-packages (from alpha_vantage) (2.32.3)
Requirement already satisfied: aiohappyeyeballs>=2.3.0 in /usr/local/lib/python3.10/dist-packages (from aiohttp->alpha_vantage) (2.4.4)
Requirement already satisfied: aiosignal>=1.1.2 in /usr/local/lib/python3.10/dist-packages (from aiohttp->alpha_vantage) (1.3.2)
Requirement already satisfied: async-timeout<6.0,>=4.0 in /usr/local/lib/python3.10/dist-packages (from aiohttp->alpha_vantage) (4.0.3)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-packages (from aiohttp->alpha_vantage) (24.3.0)
Requirement already satisfied: frozenlist>=1.1.1 in /usr/local/lib/python3.10/dist-packages (from aiohttp->alpha_vantage) (1.5.0)
Requirement already satisfied: multidict<7.0,>=4.5 in /usr/local/lib/python3.10/dist-packages (from aiohttp->alpha_vantage) (6.1.0)
Requirement already satisfied: propcache>=0.2.0 in /usr/local/lib/python3.10/dist-packages (from aiohttp->alpha_vantage) (0.2.1)
Requirement already satisfied: yarl<2.0,>=1.17.0 in /usr/local/lib/python3.10/dist-packages (from aiohttp->alpha_vantage) (1.18.3)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.10/dist-packages (from requests->alpha_vantage) (3.4.0)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages (from requests->alpha_vantage) (3.10)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.10/dist-packages (from requests->alpha_vantage) (2.2.3)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.10/dist-packages (from requests->alpha_vantage) (2024.12.14)
Requirement already satisfied: typing-extensions>=4.1.0 in /usr/local/lib/python3.10/dist-packages (from multidict<7.0,>=4.5->aiohttp->alpha_vantage) (4.12.0)
  Downloading alpha_vantage-3.0.0-py3-none-any.whl (35 kB)
Installing collected packages: alpha_vantage
Successfully installed alpha_vantage-3.0.0
```

```
import pandas as pd
```

```
from alpha_vantage.fundamentaldata import FundamentalData
```

```
API_Key = 'FC87VFHQNVKEF2G5'
```

```
df= FundamentalData(key=API_Key,output_format='pandas')
```

```
data=df.get_balance_sheet_quarterly('MSFT')
```

```
data[0].T
```



	date	1970-01-01 00:00:00.000000000	1970-01-01 00:00:00.000000001	1970-01-01 00:00:00.000000002	1970-01-01 00:00:00.000000003	1970-01-01 00:00:00.000000004
fiscalDateEnding		2024-09-30	2024-03-31	2023-12-31	2023-09-30	2023-06-30
reportedCurrency		USD	USD	USD	USD	USD
totalAssets		523013000000	484275000000	470558000000	445785000000	411976000000
totalCurrentAssets		149926000000	147180000000	147393000000	207586000000	184257000000
cashAndCashEquivalentsAtCarryingValue		20840000000	19634000000	17305000000	80452000000	34704000000
cashAndShortTermInvestments		78428000000	80021000000	81017000000	143951000000	111262000000
inventory		1626000000	1304000000	1615000000	3000000000	2500000000
currentNetReceivables		44148000000	44029000000	42831000000	36953000000	48688000000
totalNonCurrentAssets		377887000000	341895000000	327965000000	242699000000	232219000000
propertyPlantEquipment		152863000000	121375000000	112308000000	102502000000	95641000000
accumulatedDepreciationAmortizationPPE		80517000000	74945000000	72949000000	69486000000	68251000000
intangibleAssets		146125000000	147991000000	148827000000	76685000000	77252000000
intangibleAssetsExcludingGoodwill		26751000000	28828000000	29896000000	8895000000	9366000000
goodwill		119374000000	119163000000	118931000000	67790000000	67886000000
investments		75379000000	69791000000	71482000000	68750000000	95599000000
longTermInvestments		15778000000	14807000000	13367000000	11423000000	9879000000
shortTermInvestments		57588000000	60387000000	63712000000	63499000000	76558000000
otherCurrentAssets		25724000000	21826000000	21930000000	23682000000	21807000000
otherNonCurrentAssets		37793000000	35551000000	32265000000	32154000000	30601000000
totalLiabilities		235290000000	231123000000	232290000000	225071000000	205753000000
totalCurrentLiabilities		115200000000	118525000000	121016000000	124792000000	104149000000
currentAccountsPayable		22768000000	18087000000	17695000000	19307000000	18095000000
deferredRevenue		111378000000	89666000000	92068000000	98376000000	107626000000
currentDebt		2249000000	22749000000	29291000000	29556000000	5247000000
shortTermDebt		0	20500000000	27041000000	25808000000	
totalNonCurrentLiabilities		120090000000	112598000000	111274000000	100279000000	101604000000
capitalLeaseObligations		16361000000	14469000000	14155000000	13487000000	12728000000
longTermDebt		45117000000	44907000000	47178000000	45694000000	47237000000
currentLongTermDebt		2249000000	2249000000	2250000000	3748000000	5247000000
longTermDebtNoncurrent		42868000000	42658000000	44928000000	41946000000	41990000000
shortLongTermDebtTotal		45117000000	65407000000	74219000000	71502000000	47237000000
otherCurrentLiabilities		19114000000	18023000000	16362000000	14475000000	14745000000
otherNonCurrentLiabilities		31165000000	23271000000	20787000000	18634000000	17981000000
totalShareholderEquity		287723000000	253152000000	238268000000	220714000000	206223000000
treasuryStock		None	None	None	None	
retainedEarnings		188929000000	159394000000	145737000000	132143000000	118848000000
commonStock		102976000000	99193000000	97480000000	95508000000	93718000000
commonStockSharesOutstanding		7436000000	7433000000	7432000000	7431000000	7432000000

38 rows × 60 columns

```

from alpha_vantage.timeseries import TimeSeries




API_Key = 'FC87VFHQNVKEF2G5'

df= TimeSeries(key=API_Key,output_format='pandas')

data=df.get_monthly_adjusted('MSFT')

```

data[0]

1 to 25 of 302 entries  

date	1. open	2. high	3. low	4. close	5. adjusted close	6. volume	7. dividend amount
2025-01-14 00:00:00	425.53	434.32	410.72	415.67	415.67	142068468.0	0.0
2024-12-31 00:00:00	421.57	456.1648	420.66	421.5	421.5	439908245.0	0.0
2024-11-29 00:00:00	409.01	429.325	405.5713	423.46	423.46	442321341.0	0.83
2024-10-31 00:00:00	428.45	438.5	406.3	406.35	405.5347	440766715.0	0.0
2024-09-30 00:00:00	417.91	441.85	400.8	430.3	429.4367	376719438.0	0.0
2024-08-30 00:00:00	420.785	427.46	385.58	417.14	416.3031	451919023.0	0.75
2024-07-31 00:00:00	448.66	468.35	412.21	418.35	416.7683	440446499.0	0.0
2024-06-28 00:00:00	415.525	456.17	408.9234	446.95	445.2601	342370406.0	0.0
2024-05-31 00:00:00	392.61	433.6	390.31	415.13	413.5604	413810421.0	0.75
2024-04-30 00:00:00	423.95	429.37	388.03	389.33	387.1716	440119511.0	0.0
2024-03-28 00:00:00	411.27	430.82	398.39	420.72	418.3876	425101681.0	0.0
2024-02-29 00:00:00	401.83	420.82	397.22	413.64	411.3469	444203455.0	0.75
2024-01-31 00:00:00	373.86	415.32	366.5	397.58	394.6531	525975837.0	0.0
2023-12-29 00:00:00	376.76	378.16	362.9	376.04	373.2717	521914675.0	0.0
2023-11-30 00:00:00	339.79	384.3	339.65	378.91	376.1205	564165364.0	0.75
2023-10-31 00:00:00	316.28	346.2	311.215	338.11	334.9413	540963749.0	0.0
2023-09-29 00:00:00	331.31	340.86	309.45	315.75	312.7909	416768824.0	0.0
2023-08-31 00:00:00	335.19	338.54	311.5508	327.76	324.6883	479669427.0	0.68
2023-07-31 00:00:00	339.19	366.78	327.0	335.92	332.0671	666956355.0	0.0