

```
In [53]: with open('number.txt') as f:
          contents = f.read()
          print(contents)
```

2,4,5,8,9,1,2,4,5,3,7,6,8,9,3,4,1,2,5,6,3,4,3,3,7,8,9

```
In [54]: import pandas as pd
mylist = [2,4,5,8,9,1,2,4,5,3,7,6,8,9,3,4,1,2,5,6,3,4,3,3,7,8,9]
pd.Series(mylist).value_counts()
```

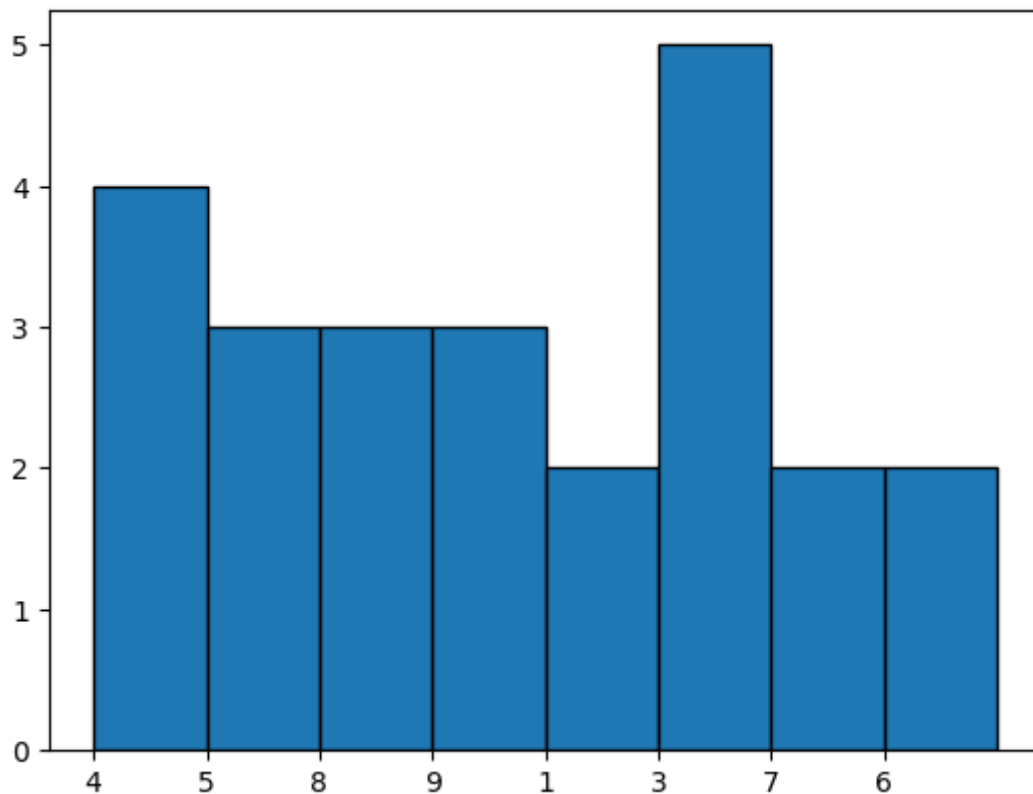
```
Out[54]: 3    5
         4    4
         2    3
         5    3
         8    3
         9    3
         1    2
         7    2
         6    2
dtype: int64
```

```
In [55]: print("Above 3 occurs 5 times, 4 occurs 4 times, and so on")
```

Above 3 occurs 5 times, 4 occurs 4 times, and so on

```
In [56]: import matplotlib.pyplot as plt
bin_ranges = [1,2,3,4,5,6,7,8,9]
x = ["2", "4", "5", "8", "9", "1", "2", "4", "5", "3", "7", "6", "8", "9", "3", "4", "1", "2", "5"]
plt.hist(x, bins=bin_ranges, edgecolor='black')
```

```
Out[56]: (array([4., 3., 3., 3., 2., 5., 2., 2.]),
          array([1, 2, 3, 4, 5, 6, 7, 8, 9]),
          <BarContainer object of 8 artists>)
```



```
In [57]: import json
dictionary = mylist
json_object = json.dumps(dictionary)
print(json_object)
```

```
[2, 4, 5, 8, 9, 1, 2, 4, 5, 3, 7, 6, 8, 9, 3, 4, 1, 2, 5, 6, 3, 4, 3, 3, 7, 8, 9]
```

```
In [58]: import json
json_object = json.dumps(dictionary)
with open('personal.json', 'w') as json_file:
    json.dump(json_object, json_file)
```

```
In [59]: import pandas as pd

df = pd.read_csv('amazon-orders.csv')
df.head()
df["Total Charged"] = df["Total Charged"].str.replace('$', '').astype(float)
df.head(70)
```

```
/var/folders/h9/tlrjkmj57hvbb10mbgllmnp40000gn/T/ipykernel_60930/2957644353.py:5: FutureWarning: The default value of regex will change from True to False in a future version. In addition, single character regular expressions will *not* be treated as literal strings when regex=True.
df["Total Charged"] = df["Total Charged"].str.replace('$', '').astype(float)
```

Out [59]:

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
0	04/01/19	112-0000000-0000001	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/01/19	
1	04/01/19	112-0000000-0000002	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/01/19	
2	04/01/19	112-0000000-0000003	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/01/19	
3	04/04/19	112-0000000-0000004	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/05/19	
4	04/05/19	112-0000000-0000005	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/07/19	
5	04/05/19	112-0000000-0000006	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/08/19	
6	04/07/19	112-0000000-0000007	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/08/19	
7	04/08/19	112-0000000-0000008	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/08/19	
8	04/20/19	112-0000000-0000009	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/21/19	
9	04/23/19	112-0000000-0000010	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/24/19	
10	05/05/19	112-0000000-0000011	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/07/19	
11	05/06/19	112-0000000-0000012	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/07/19	
12	05/10/19	112-0000000-0000013	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/12/19	
13	05/14/19	112-0000000-0000014	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/15/19	
14	05/18/19	112-0000000-0000015	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/19/19	
15	05/19/19	112-0000000-	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/20/19	

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
		0000016						
16	05/21/19	112-0000000-0000017	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/22/19	
17	05/21/19	112-0000000-0000018	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/22/19	
18	05/21/19	112-0000000-0000019	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/22/19	
19	05/22/19	112-0000000-0000020	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/22/19	
20	05/22/19	112-0000000-0000021	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/23/19	
21	05/22/19	112-0000000-0000022	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/23/19	
22	05/24/19	112-0000000-0000023	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/25/19	
23	05/25/19	112-0000000-0000024	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/27/19	
24	05/28/19	112-0000000-0000025	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/28/19	
25	05/29/19	112-0000000-0000026	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/30/19	
26	05/30/19	112-0000000-0000027	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/01/19	
27	05/30/19	112-0000000-0000028	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/30/19	
28	06/03/19	112-0000000-0000029	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/05/19	
29	06/03/19	112-0000000-0000030	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/05/19	
30	06/05/19	112-0000000-0000031	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/05/19	

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
31	06/18/19	112-0000000-0000032	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/19/19	
32	06/25/19	112-0000000-0000033	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/26/19	
33	06/25/19	112-0000000-0000034	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/26/19	
34	07/03/19	112-0000000-0000035	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/04/19	
35	07/03/19	112-0000000-0000036	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/05/19	
36	07/03/19	112-0000000-0000037	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/08/19	
37	07/03/19	112-0000000-0000038	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/05/19	
38	07/03/19	112-0000000-0000039	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/04/19	
39	07/06/19	112-0000000-0000040	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/07/19	
40	07/06/19	112-0000000-0000041	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/08/19	
41	07/06/19	112-0000000-0000042	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/07/19	
42	07/06/19	112-0000000-0000043	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/08/19	
43	07/06/19	112-0000000-0000044	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/07/19	
44	07/07/19	112-0000000-0000045	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/08/19	
45	07/09/19	112-0000000-0000046	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/09/19	
46	07/17/19	112-0000000-	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
		0000047						
47	07/18/19	112-0000000-0000048	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/19/19	
48	07/18/19	112-0000000-0000049	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	
49	07/18/19	112-0000000-0000050	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	
50	07/18/19	112-0000000-0000051	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	
51	07/21/19	112-0000000-0000052	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/21/19	
52	07/21/19	112-0000000-0000053	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/22/19	
53	07/23/19	112-0000000-0000054	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/23/19	
54	07/30/19	112-0000000-0000055	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/31/19	
55	07/30/19	112-0000000-0000056	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	08/01/19	
56	07/30/19	112-0000000-0000057	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	08/01/19	
57	07/31/19	112-0000000-0000058	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/31/19	
58	07/31/19	112-0000000-0000059	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	08/01/19	

59 rows × 23 columns

In []:

In []:

In [63]: `df["Total Charged"].sum()`

Out[63]: 1777.7300000000002

```
In [12]: df["Total Charged"].mean()
```

Out[12]: 30.131016949152542

```
In [13]: df["Total Charged"].median()
```

Out[13]: 15.95

```
In [14]: df["Total Charged"].max()
```

Out[14]: 210.99

```
In [15]: df["Total Charged"].min()
```

Out[15]: 1.04

```
In [16]: df["Total Charged"].std()
```

Out[16]: 36.42273246651456

```
In [65]: import pandas as pd
```

```
df = pd.read_csv('amazon-orders.csv')
df.head()
df["Subtotal"] = df["Subtotal"].str.replace('$', '').astype(float)
df.head(70)
```

/var/folders/h9/tlrjkmj57hvbb10mbgllmnp40000gn/T/ipykernel_60930/1873757755.py:5: FutureWarning: The default value of regex will change from True to False in a future version. In addition, single character regular expressions will not be treated as literal strings when regex=True.

```
df["Subtotal"] = df["Subtotal"].str.replace('$', '').astype(float)
```

Out [65]:

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
0	04/01/19	112-0000000-0000001	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/01/19	
1	04/01/19	112-0000000-0000002	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/01/19	
2	04/01/19	112-0000000-0000003	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/01/19	
3	04/04/19	112-0000000-0000004	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/05/19	
4	04/05/19	112-0000000-0000005	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/07/19	
5	04/05/19	112-0000000-0000006	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/08/19	
6	04/07/19	112-0000000-0000007	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/08/19	
7	04/08/19	112-0000000-0000008	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/08/19	
8	04/20/19	112-0000000-0000009	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/21/19	
9	04/23/19	112-0000000-0000010	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/24/19	
10	05/05/19	112-0000000-0000011	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/07/19	
11	05/06/19	112-0000000-0000012	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/07/19	
12	05/10/19	112-0000000-0000013	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/12/19	
13	05/14/19	112-0000000-0000014	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/15/19	
14	05/18/19	112-0000000-0000015	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/19/19	
15	05/19/19	112-0000000-	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/20/19	

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
		0000016						
16	05/21/19	112-0000000-0000017	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/22/19	
17	05/21/19	112-0000000-0000018	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/22/19	
18	05/21/19	112-0000000-0000019	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/22/19	
19	05/22/19	112-0000000-0000020	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/22/19	
20	05/22/19	112-0000000-0000021	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/23/19	
21	05/22/19	112-0000000-0000022	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/23/19	
22	05/24/19	112-0000000-0000023	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/25/19	
23	05/25/19	112-0000000-0000024	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/27/19	
24	05/28/19	112-0000000-0000025	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/28/19	
25	05/29/19	112-0000000-0000026	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/30/19	
26	05/30/19	112-0000000-0000027	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/01/19	
27	05/30/19	112-0000000-0000028	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/30/19	
28	06/03/19	112-0000000-0000029	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/05/19	
29	06/03/19	112-0000000-0000030	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/05/19	
30	06/05/19	112-0000000-0000031	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/05/19	

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
31	06/18/19	112-0000000-0000032	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/19/19	
32	06/25/19	112-0000000-0000033	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/26/19	
33	06/25/19	112-0000000-0000034	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/26/19	
34	07/03/19	112-0000000-0000035	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/04/19	
35	07/03/19	112-0000000-0000036	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/05/19	
36	07/03/19	112-0000000-0000037	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/08/19	
37	07/03/19	112-0000000-0000038	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/05/19	
38	07/03/19	112-0000000-0000039	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/04/19	
39	07/06/19	112-0000000-0000040	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/07/19	
40	07/06/19	112-0000000-0000041	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/08/19	
41	07/06/19	112-0000000-0000042	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/07/19	
42	07/06/19	112-0000000-0000043	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/08/19	
43	07/06/19	112-0000000-0000044	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/07/19	
44	07/07/19	112-0000000-0000045	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/08/19	
45	07/09/19	112-0000000-0000046	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/09/19	
46	07/17/19	112-0000000-	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
		0000047						
47	07/18/19	112-0000000-0000048	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/19/19	
48	07/18/19	112-0000000-0000049	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	
49	07/18/19	112-0000000-0000050	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	
50	07/18/19	112-0000000-0000051	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	
51	07/21/19	112-0000000-0000052	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/21/19	
52	07/21/19	112-0000000-0000053	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/22/19	
53	07/23/19	112-0000000-0000054	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/23/19	
54	07/30/19	112-0000000-0000055	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/31/19	
55	07/30/19	112-0000000-0000056	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	08/01/19	
56	07/30/19	112-0000000-0000057	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	08/01/19	
57	07/31/19	112-0000000-0000058	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/31/19	
58	07/31/19	112-0000000-0000059	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	08/01/19	

59 rows × 23 columns

```
In [66]: df["Subtotal"].sum()
```

```
Out[66]: 1738.2299999999998
```

```
In [68]: import pandas as pd

df = pd.read_csv('amazon-orders.csv')
```

```
df.head()  
df["Tax Charged"] = df["Tax Charged"].str.replace('$', '').astype(float)  
df.head(70)
```

```
/var/folders/h9/tlrjkmj57hvbb10mbgllmnp40000gn/T/ipykernel_60930/3978449552.py:5: FutureWarning: The default value of regex will change from True to False in a future version. In addition, single character regular expressions will not be treated as literal strings when regex=True.  
df["Tax Charged"] = df["Tax Charged"].str.replace('$', '').astype(float)
```

Out [68]:

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
0	04/01/19	112-0000000-0000001	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/01/19	
1	04/01/19	112-0000000-0000002	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/01/19	
2	04/01/19	112-0000000-0000003	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/01/19	
3	04/04/19	112-0000000-0000004	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/05/19	
4	04/05/19	112-0000000-0000005	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/07/19	
5	04/05/19	112-0000000-0000006	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/08/19	
6	04/07/19	112-0000000-0000007	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/08/19	
7	04/08/19	112-0000000-0000008	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/08/19	
8	04/20/19	112-0000000-0000009	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/21/19	
9	04/23/19	112-0000000-0000010	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	04/24/19	
10	05/05/19	112-0000000-0000011	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/07/19	
11	05/06/19	112-0000000-0000012	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/07/19	
12	05/10/19	112-0000000-0000013	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/12/19	
13	05/14/19	112-0000000-0000014	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/15/19	
14	05/18/19	112-0000000-0000015	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/19/19	
15	05/19/19	112-0000000-	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/20/19	

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
		0000016						
16	05/21/19	112-0000000-0000017	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/22/19	
17	05/21/19	112-0000000-0000018	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/22/19	
18	05/21/19	112-0000000-0000019	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/22/19	
19	05/22/19	112-0000000-0000020	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/22/19	
20	05/22/19	112-0000000-0000021	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/23/19	
21	05/22/19	112-0000000-0000022	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	05/23/19	
22	05/24/19	112-0000000-0000023	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/25/19	
23	05/25/19	112-0000000-0000024	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/27/19	
24	05/28/19	112-0000000-0000025	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/28/19	
25	05/29/19	112-0000000-0000026	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/30/19	
26	05/30/19	112-0000000-0000027	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/01/19	
27	05/30/19	112-0000000-0000028	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	05/30/19	
28	06/03/19	112-0000000-0000029	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/05/19	
29	06/03/19	112-0000000-0000030	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/05/19	
30	06/05/19	112-0000000-0000031	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/05/19	

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
31	06/18/19	112-0000000-0000032	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/19/19	
32	06/25/19	112-0000000-0000033	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/26/19	
33	06/25/19	112-0000000-0000034	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	06/26/19	
34	07/03/19	112-0000000-0000035	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/04/19	
35	07/03/19	112-0000000-0000036	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/05/19	
36	07/03/19	112-0000000-0000037	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/08/19	
37	07/03/19	112-0000000-0000038	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/05/19	
38	07/03/19	112-0000000-0000039	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/04/19	
39	07/06/19	112-0000000-0000040	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/07/19	
40	07/06/19	112-0000000-0000041	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/08/19	
41	07/06/19	112-0000000-0000042	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/07/19	
42	07/06/19	112-0000000-0000043	Visa - 5555	Amazon.com	NaN	your_email@gmail.com	07/08/19	
43	07/06/19	112-0000000-0000044	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/07/19	
44	07/07/19	112-0000000-0000045	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/08/19	
45	07/09/19	112-0000000-0000046	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/09/19	
46	07/17/19	112-0000000-	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	

	Order Date	Order ID	Payment Instrument Type	Website	Purchase Order Number	Ordering Customer Email	Shipment Date	S /
		0000047						
47	07/18/19	112-0000000-0000048	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/19/19	
48	07/18/19	112-0000000-0000049	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	
49	07/18/19	112-0000000-0000050	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	
50	07/18/19	112-0000000-0000051	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/18/19	
51	07/21/19	112-0000000-0000052	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/21/19	
52	07/21/19	112-0000000-0000053	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/22/19	
53	07/23/19	112-0000000-0000054	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/23/19	
54	07/30/19	112-0000000-0000055	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/31/19	
55	07/30/19	112-0000000-0000056	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	08/01/19	
56	07/30/19	112-0000000-0000057	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	08/01/19	
57	07/31/19	112-0000000-0000058	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	07/31/19	
58	07/31/19	112-0000000-0000059	Visa - 0001	Amazon.com	NaN	your_email@gmail.com	08/01/19	

59 rows × 23 columns

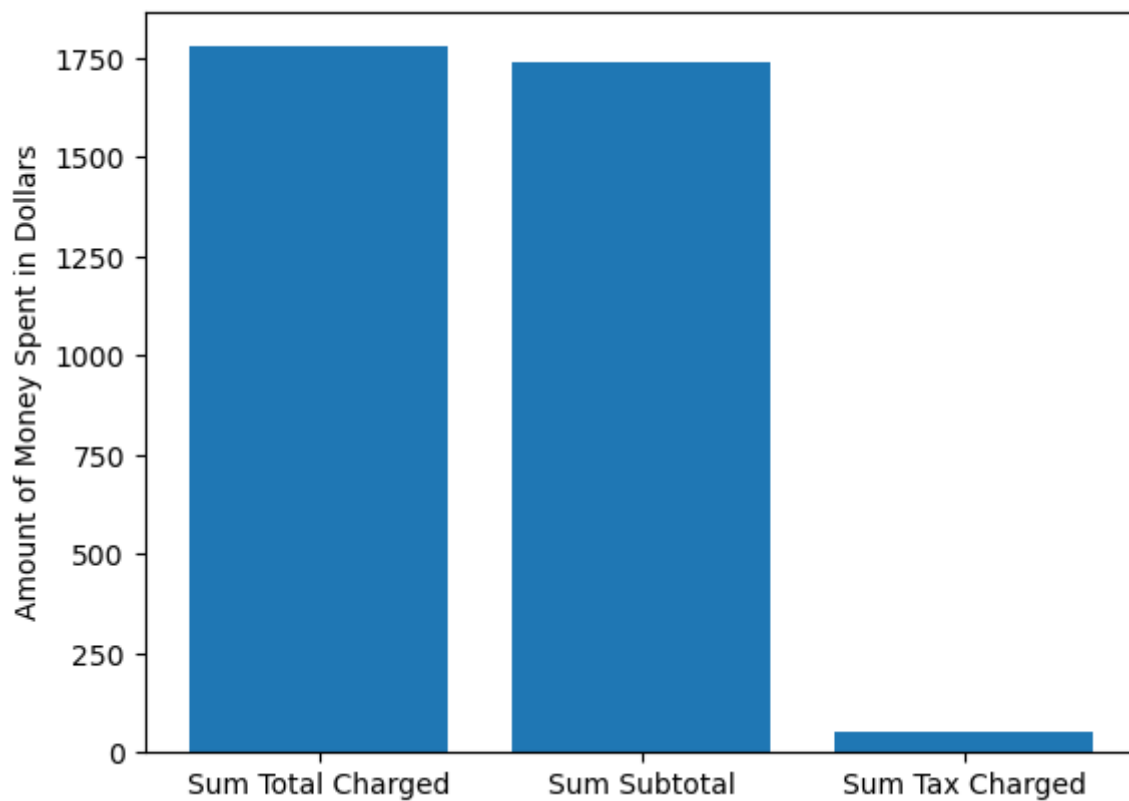
```
In [69]: df["Tax Charged"].sum()
```

```
Out[69]: 52.609999999999999
```

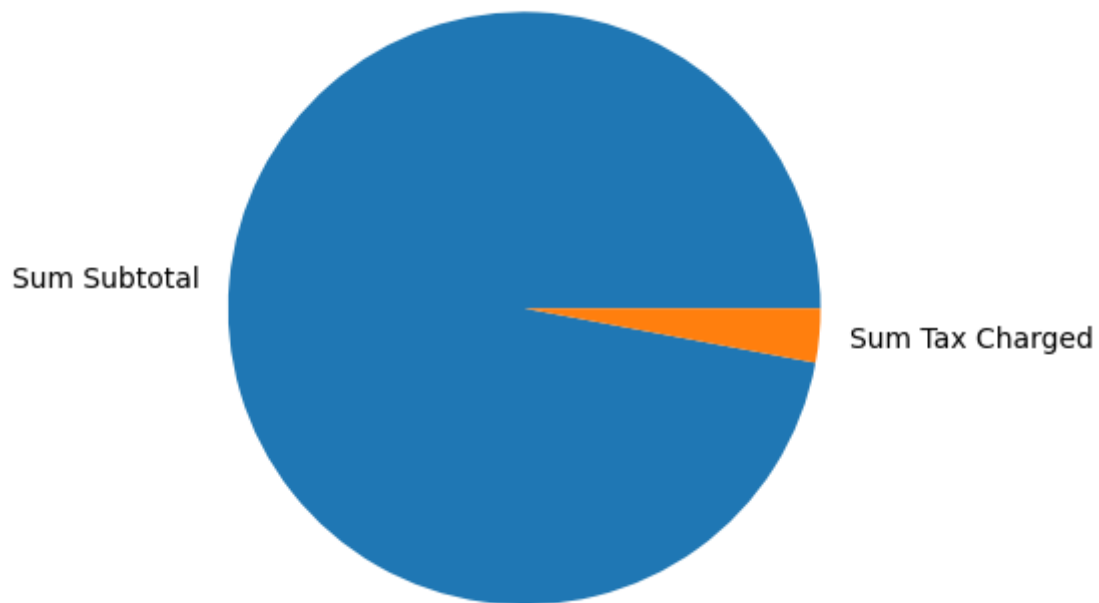
```
In [74]: import matplotlib.pyplot as plt
import numpy as np
x = np.array(["Sum Total Charged", "Sum Subtotal", "Sum Tax Charged"])
```



```
y = np.array ([1777.73,1738.22,52.60])
plt.bar(x,y)
plt.ylabel("Amount of Money Spent in Dollars")
plt.show()
```



```
In [80]: import matplotlib.pyplot as plt
import numpy as np
y = np.array ([1738.22,52.60])
my_labels = ["Sum Subtotal","Sum Tax Charged"]
plt.pie(y, labels=my_labels)
plt.show()
```



In []:

In []:

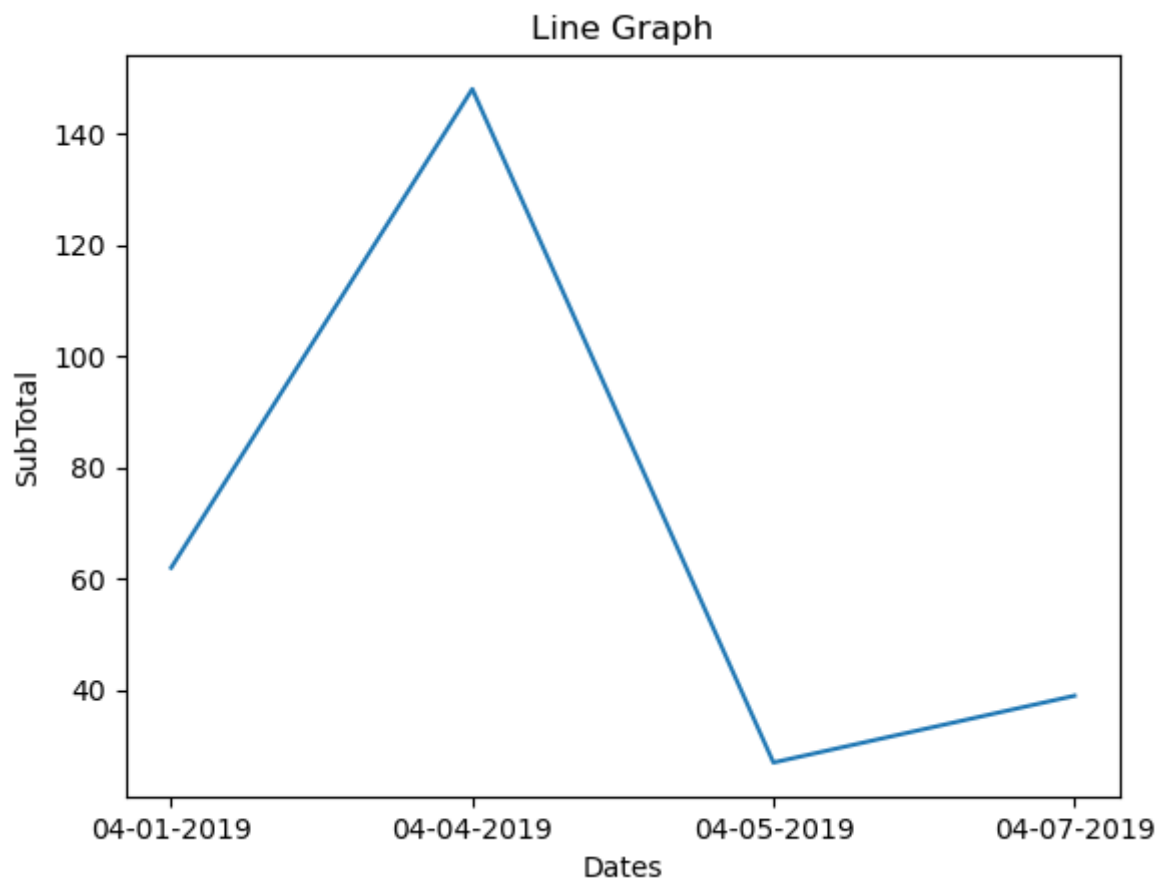
In []:

```
In [43]: import matplotlib.pyplot as plt

x_value = ['04-01-2019', '04-04-2019', '04-05-2019', '04-07-2019']
y_value = [61.98, 147.98, 26.98, 38.98]

plt.plot(x_value, y_value)

plt.xlabel("Dates")
plt.ylabel("SubTotal")
plt.title('Line Graph')
plt.show()
```

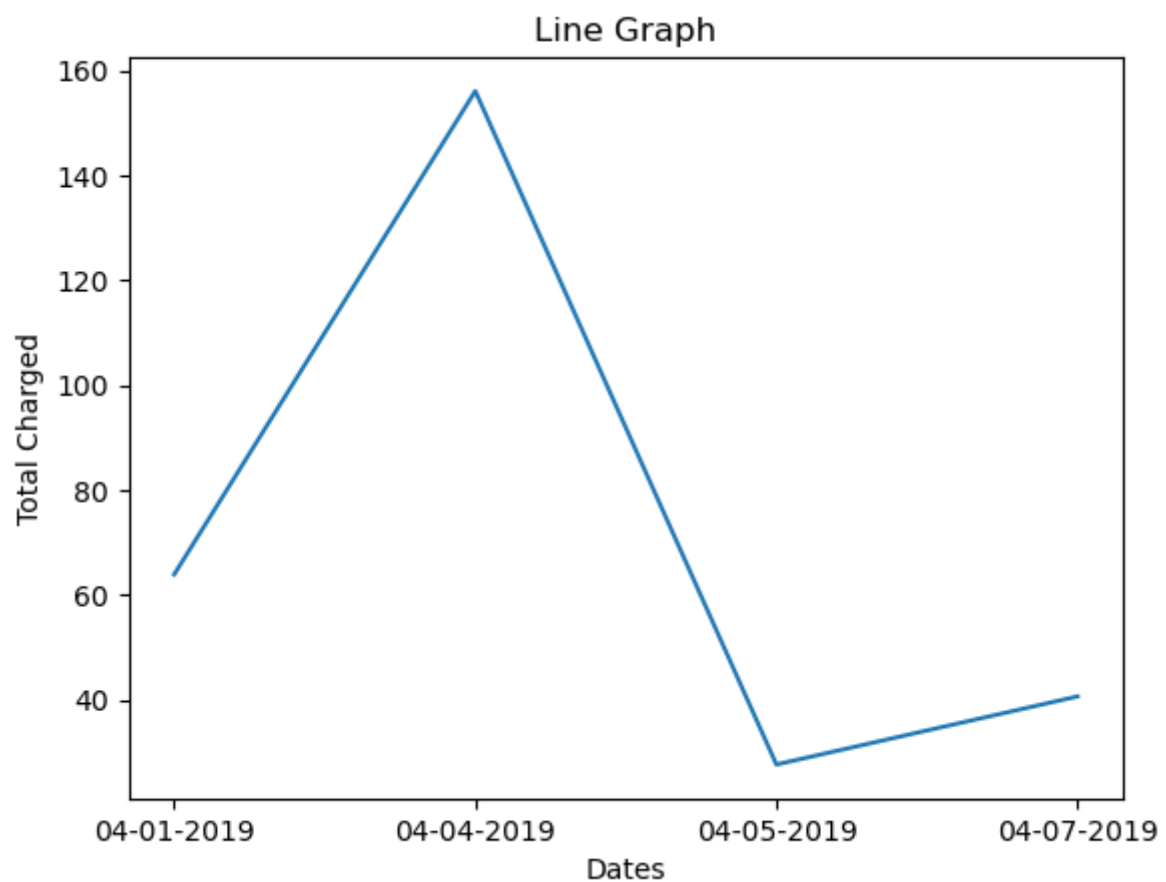


```
In [42]: import matplotlib.pyplot as plt

x_value = ['04-01-2019', '04-04-2019', '04-05-2019', '04-07-2019']
y_value = [63.91, 156.12, 27.64, 40.63]

plt.plot(x_value, y_value)

plt.xlabel("Dates")
plt.ylabel("Total Charged")
plt.title('Line Graph')
plt.show()
```

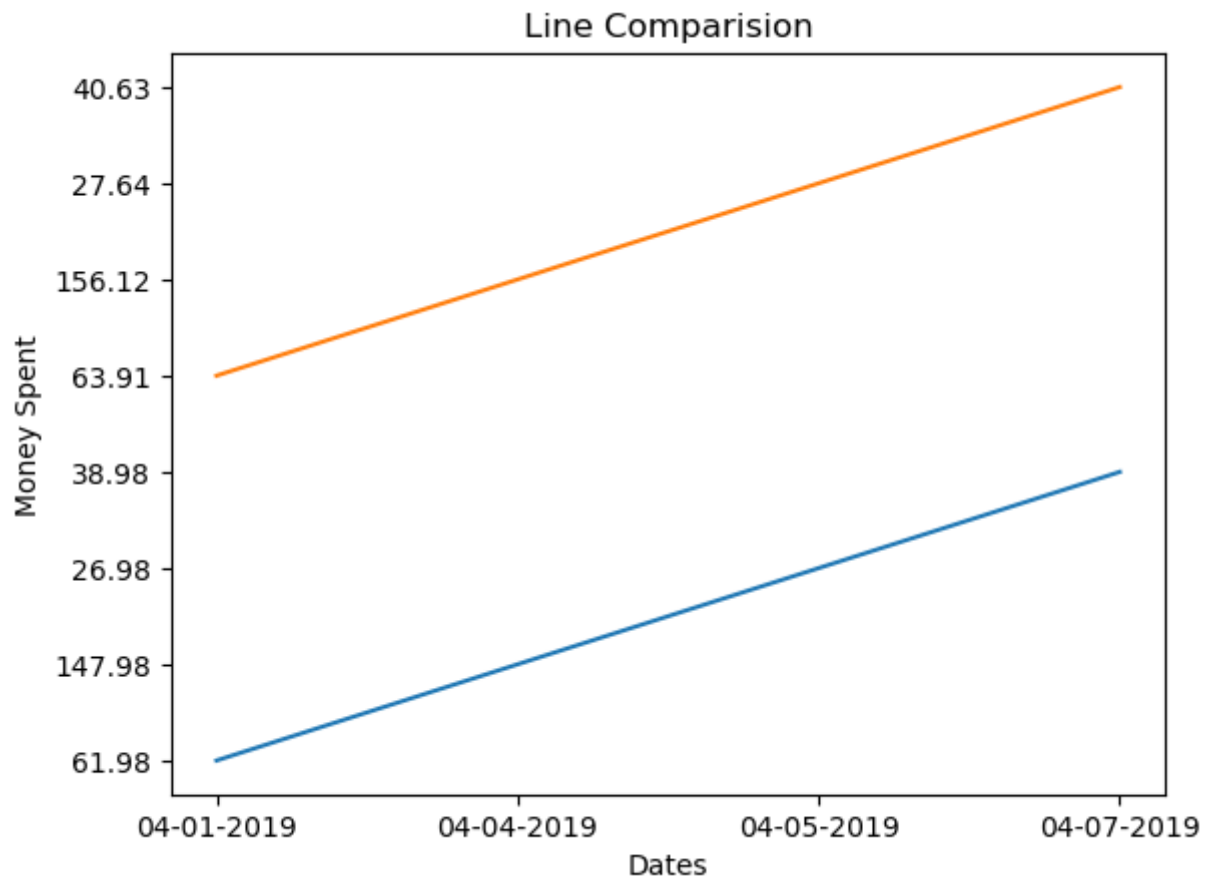


```
In [49]: import matplotlib.pyplot as plt

x = ['04-01-2019', '04-04-2019', '04-05-2019', '04-07-2019']
y1 = ['61.98', '147.98', '26.98', '38.98']
y2 = ['63.91', '156.12', '27.64', '40.63']

plt.plot(x, y1) #Subtotal
plt.plot(x, y2) #Total Charged

plt.xlabel("Dates")
plt.ylabel("Money Spent")
plt.title('Line Comparision')
plt.show()
```

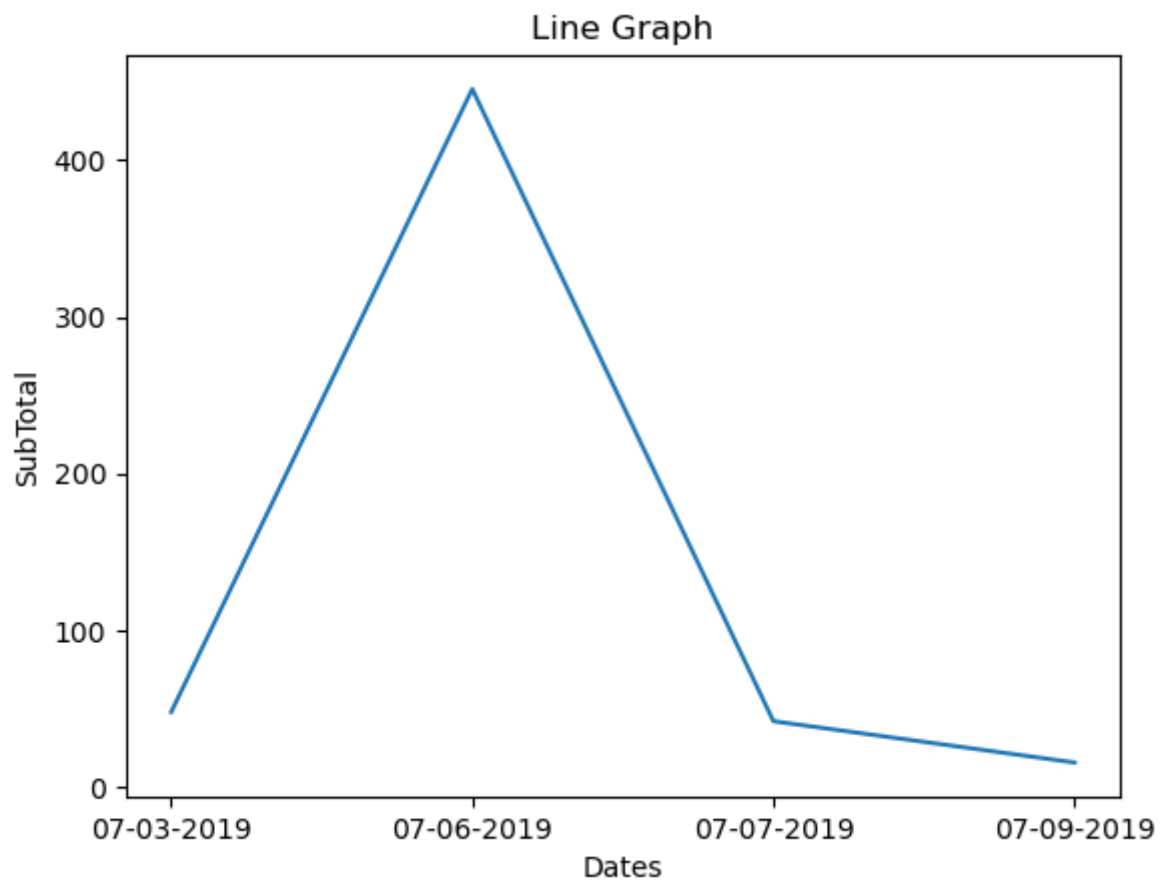


```
In [51]: import matplotlib.pyplot as plt

x_value = ['07-03-2019', '07-06-2019', '07-07-2019', '07-09-2019']
y_value = [47.83, 445.41, 41.97, 15.60]

plt.plot(x_value, y_value)

plt.xlabel("Dates")
plt.ylabel("SubTotal")
plt.title('Line Graph')
plt.show()
```

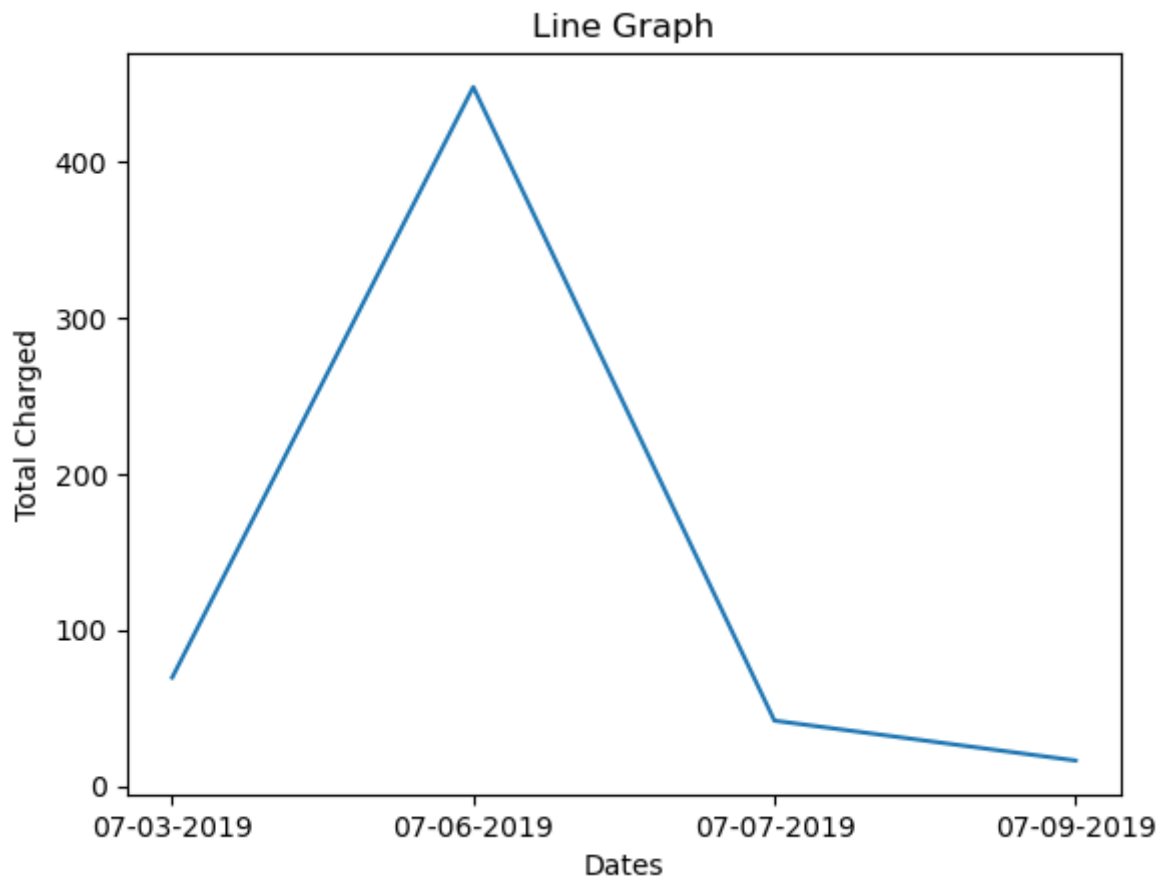


```
In [50]: import matplotlib.pyplot as plt

x_value = ['07-03-2019', '07-06-2019', '07-07-2019', '07-09-2019']
y_value = [69.57, 447.36, 41.97, 16.46]

plt.plot(x_value, y_value)

plt.xlabel("Dates")
plt.ylabel("Total Charged")
plt.title('Line Graph')
plt.show()
```

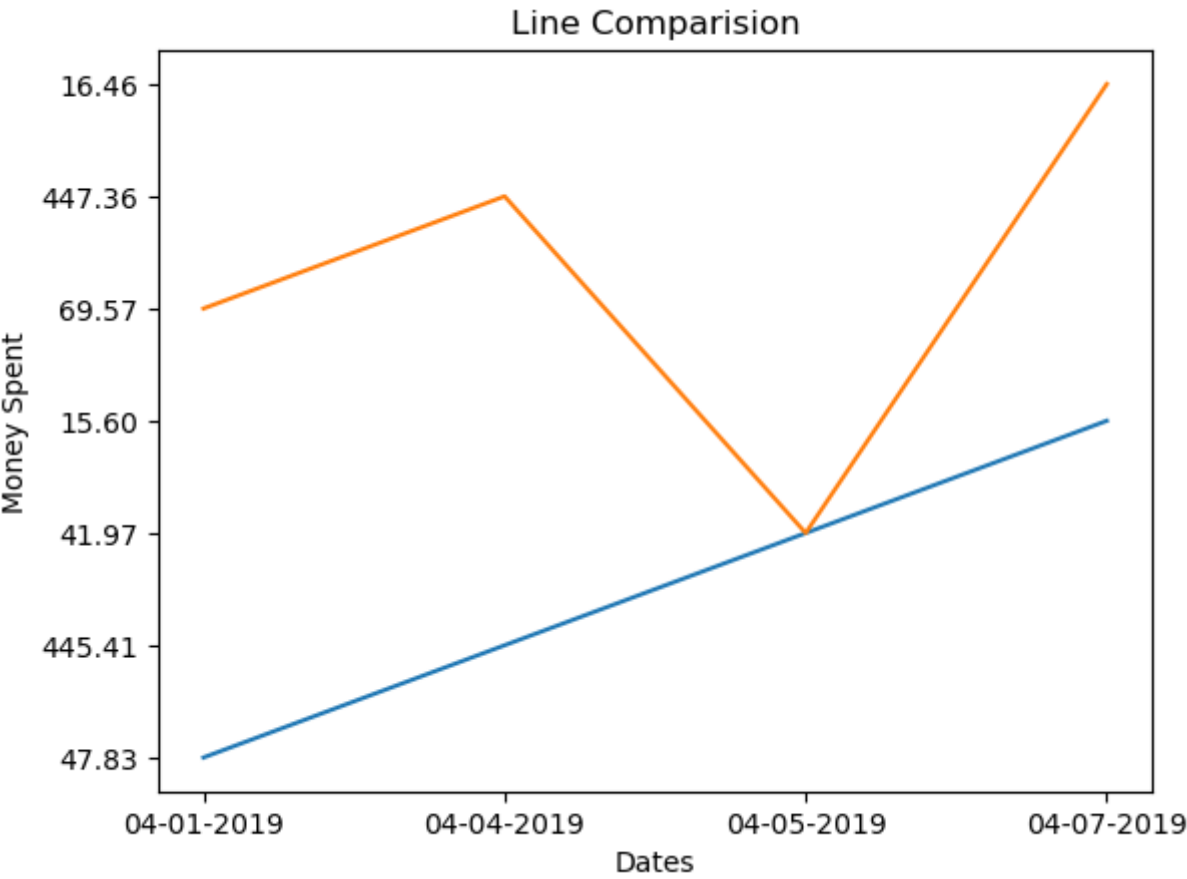


```
In [52]: import matplotlib.pyplot as plt

x = ['04-01-2019', '04-04-2019', '04-05-2019', '04-07-2019']
y1 = ['47.83', '445.41', '41.97', '15.60']
y2 = ['69.57', '447.36', '41.97', '16.46']

plt.plot(x, y1) #Subtotal
plt.plot(x, y2) #Total Charged

plt.xlabel("Dates")
plt.ylabel("Money Spent")
plt.title('Line Comparision')
plt.show()
```



In []: