

Experiment 5

```
In [1]: import matplotlib.pyplot as plt
import pandas as pd
```

```
In [2]: data = [11, 22, 20, 14, 29, 8, 35, 27, 13, 48, 10, 24, 17]
```

```
In [3]: data
```

```
Out[3]: [11, 22, 20, 14, 29, 8, 35, 27, 13, 48, 10, 24, 17]
```

```
In [4]: df = pd.DataFrame(data)
```

```
In [5]: df
```

```
Out[5]:
```

	0
0	11
1	22
2	20
3	14
4	29
5	8
6	35
7	27
8	13
9	48
10	10
11	24
12	17

```
In [6]: data_sort = df.sort_values(by = [0])
```

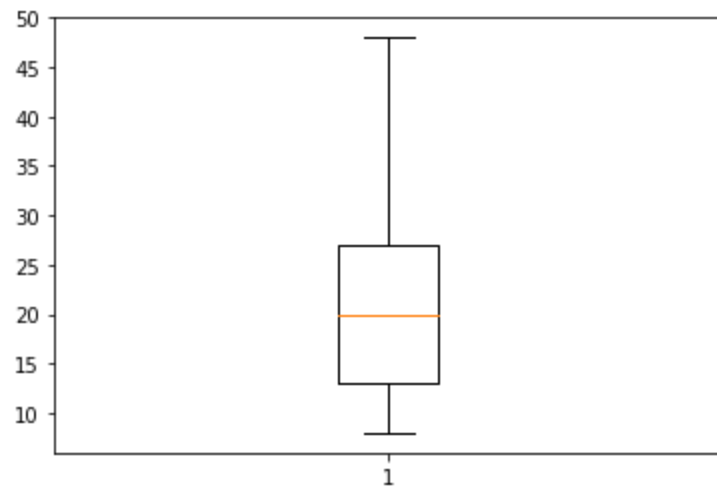
```
In [7]: data_sort
```

```
Out[7]:
```

	0
5	8
10	10
0	11
8	13
3	14
12	17
2	20
1	22

```
11 24
7 27
4 29
6 35
9 48
```

```
In [8]: plt.boxplot(data_sort)
plt.show()
```



```
In [10]: import os
dir = os.getcwd()
filename = dir + "../assets/csv/tips.csv"
tips = pd.read_csv(filename)
```

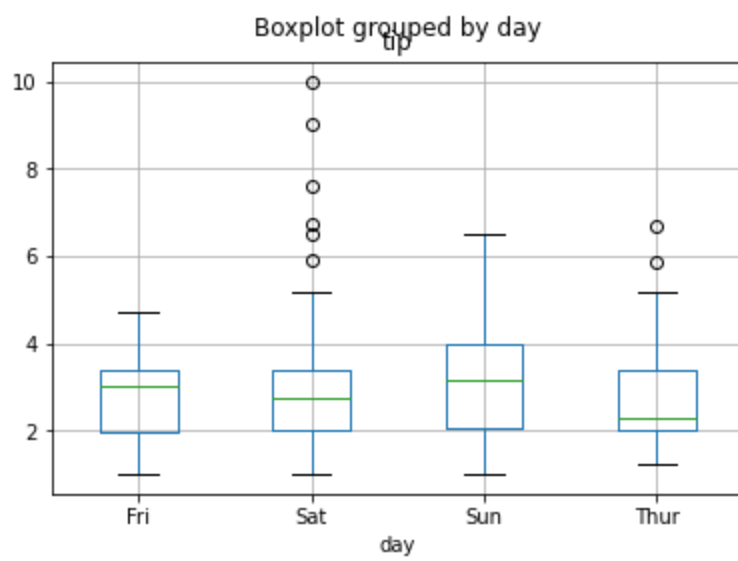
```
In [11]: tips.head()
```

```
Out[11]:
```

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

```
In [12]: tips.boxplot(by='day', column=['tip'])
```

```
Out[12]: <AxesSubplot: title={'center': 'tip'}, xlabel='day'>
```



In []: