Date 06-07-2021

Box Plots Exercise

In [1]:
```
import pandas as pd
import numpy as np
import plotly.offline as pyo
import plotly.graph_objs as go
```

In [2]:
```
abalone_data_csv = pd.read_csv("abalone.csv")
abalone_data_csv
```

Out[2]:

	sex	length	diameter	height	whole_weight	shucked_weight	viscera_weight	shell_weight	rings
0	M	0.455	0.365	0.095	0.5140	0.2245	0.1010	0.1500	15
1	M	0.350	0.265	0.090	0.2255	0.0995	0.0485	0.0700	7
2	F	0.530	0.420	0.135	0.6770	0.2565	0.1415	0.2100	9
3	M	0.440	0.365	0.125	0.5160	0.2155	0.1140	0.1550	10
4	I	0.330	0.255	0.080	0.2050	0.0895	0.0395	0.0550	7
...	...	...	...	...	...	...	...	...	...
4172	F	0.565	0.450	0.165	0.8870	0.3700	0.2390	0.2490	11
4173	M	0.590	0.440	0.135	0.9660	0.4390	0.2145	0.2605	10
4174	M	0.600	0.475	0.205	1.1760	0.5255	0.2875	0.3080	9
4175	F	0.625	0.485	0.150	1.0945	0.5310	0.2610	0.2960	10
4176	M	0.710	0.555	0.195	1.9485	0.9455	0.3765	0.4950	12

4177 rows × 9 columns

In [3]:
```
np.random.seed(78)
y1 = np.random.choice(abalone_data_csv["rings"], 10, replace = False)
y2 = np.random.choice(abalone_data_csv["rings"], 10, replace = False)
y1, y2
```

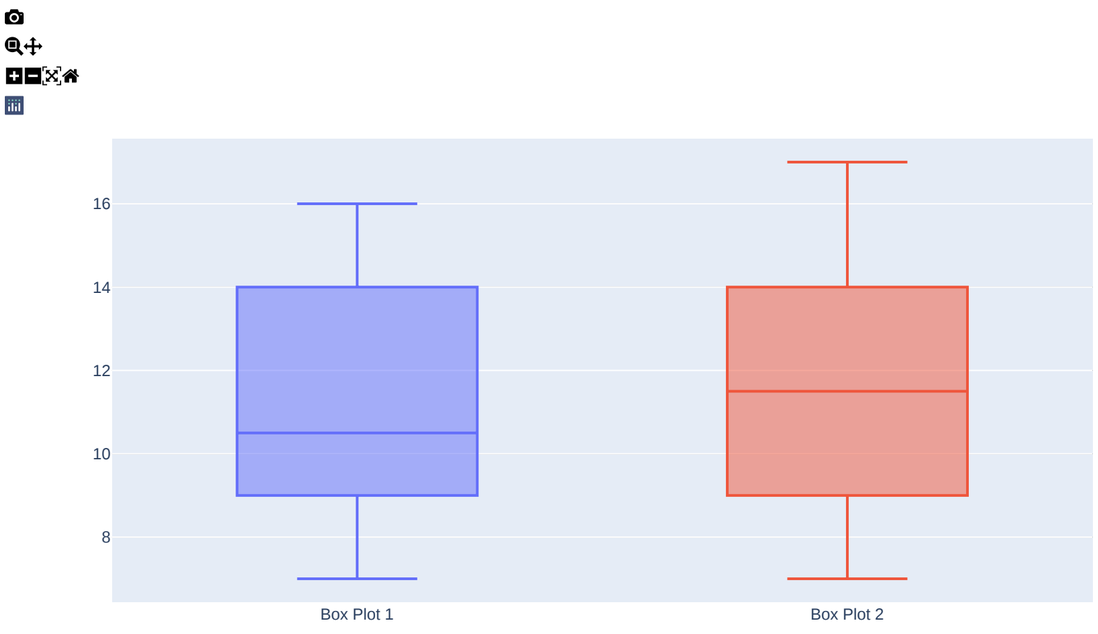
Out[3]:
```
(array([16, 11,  9, 14, 16,  9, 10,  7, 11, 10], dtype=int64),
 array([ 8, 17, 12,  7, 11, 14, 15,  9,  9, 13], dtype=int64))
```

In [4]:
```
data = [go.Box(y = y1,
               name = "Box Plot 1"),
        go.Box(y = y2,
               name = "Box Plot 2")]
```

In [5]:
```
layout = go.Layout(title = "Two Random Samples")
```

In [6]:
```
fig = go.Figure(data, layout)
```

In [7]:
```
pyo.iplot(fig)
```



In [8]:
```
pyo.plot(fig, filename = "tutorial_14 (Box Plots Exercise).html")
```

Out[8]:
```
'tutorial_14 (Box Plots Exercise).html'
```