5.2-Handling Outliers

January 2, 2024

0.1 5 number Summary And Box Plot

[ ]:
```
## Minimum,MAximum,Median,Q1,Q3,IQR
```

[ ]:
```
import numpy as np
```

[ ]:
```
lst_marks=[45,32,56,75,89,54,32,89,90,87,67,54,45,98,99,67,74]
minimum,Q1,median,Q3,maximum=np.quantile(lst_marks,[0,0.25,0.50,0.75,1.0])
```

[ ]:
```
minimum,Q1,median,Q3,maximum
```

[ ]:
```
(32.0, 54.0, 67.0, 89.0, 99.0)
```

[ ]:
```
IQR=Q3-Q1
print(IQR)
```

```
35.0
```

[ ]:
```
lower_fence=Q1-1.5*(IQR)
higher_fence=Q3+1.5*(IQR)
```

[ ]:
```
lower_fence
```

[ ]:
```
1.5
```

[ ]:
```
higher_fence
```

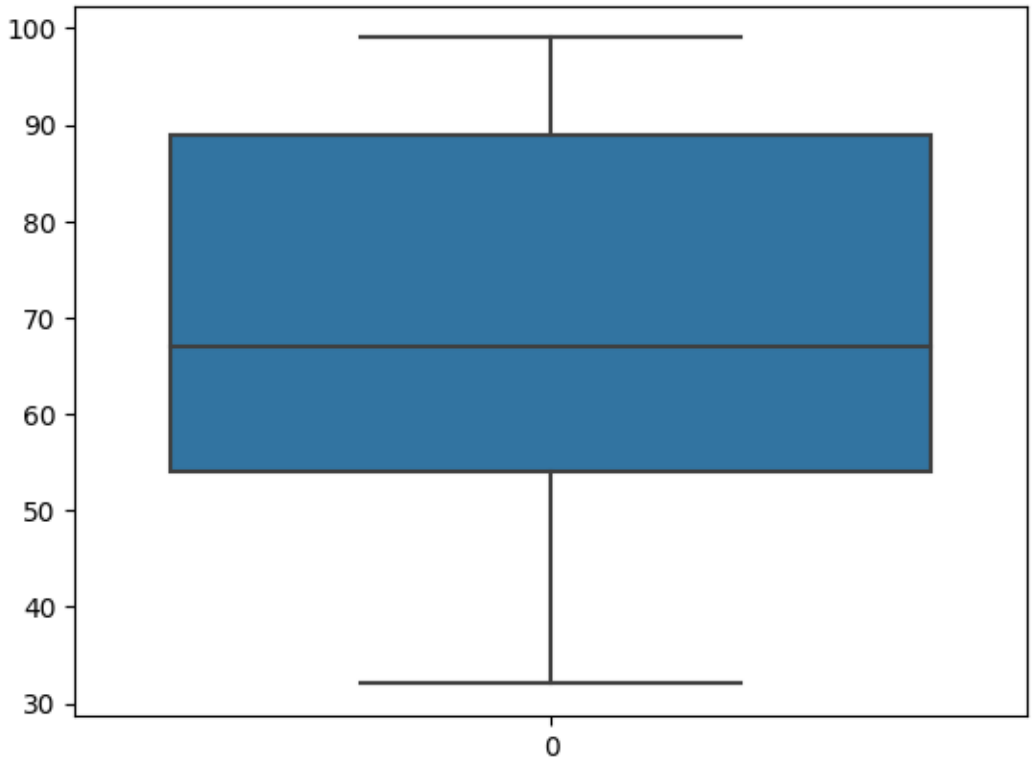
[ ]:
```
141.5
```

[ ]:
```
lst_marks=[45,32,56,75,89,54,32,89,90,87,67,54,45,98,99,67,74]
```

[ ]:
```
import seaborn as sns
```

[ ]:
```
sns.boxplot(lst_marks)
```

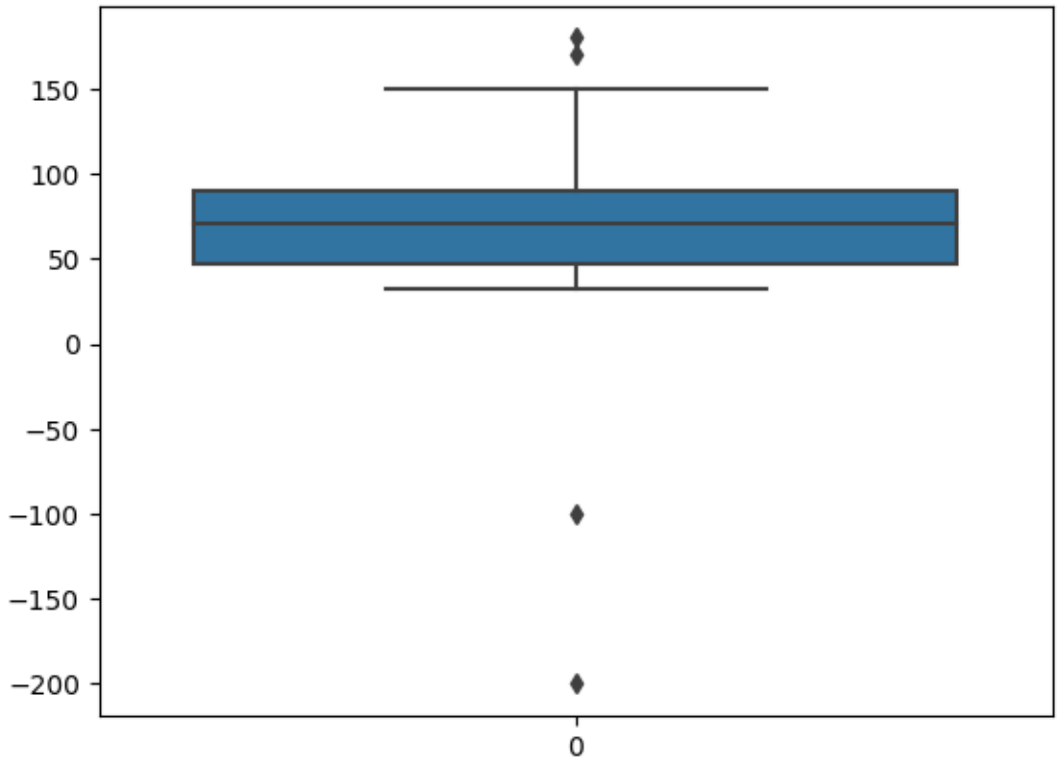
[ ]:
```
<Axes: >
```




```
[ ]: lst_marks=[-100,-200,45,32,56,75,89,54,32,89,90,87,67,54,45,98,99,67,74,150,170,180]
```

```
[ ]: sns.boxplot(lst_marks)
```

```
[ ]: <Axes: >
```


150
100
50
0
−50
−100
−150
−200
0

[ ]:

[ ]: