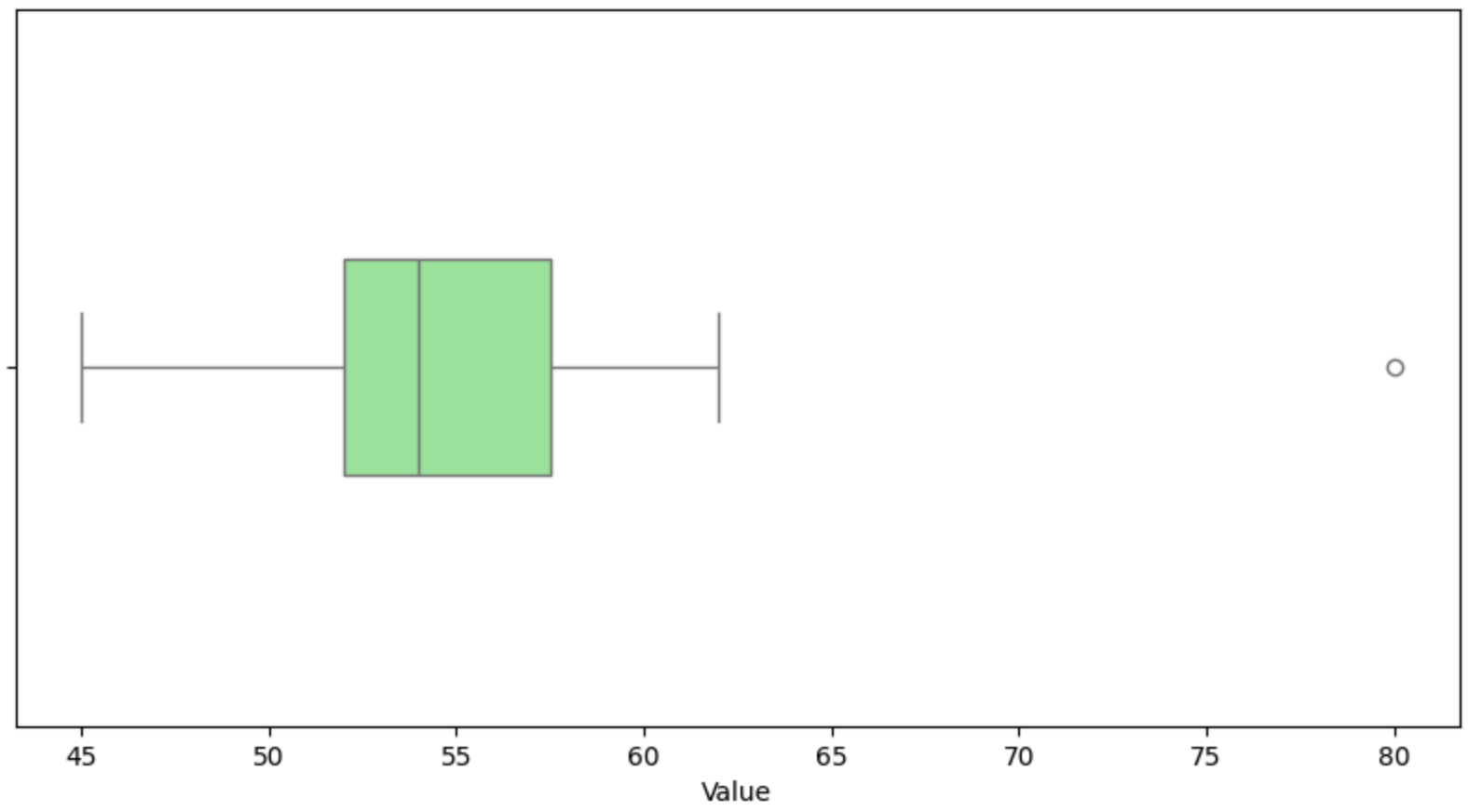
In [2]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

data=[45,47,52,52,53,55,56,58,62,80]
Q1=np.percentile(data,25)
Q2=np.percentile(data,50)
Q3=np.percentile(data,75)
middle_50=[x for x in data if Q1<=x<=Q3]
IQR=Q3-Q1
print(Q1,Q2,Q3)
print("middle 50 values",middle_50)
print("interquartile range",IQR)
lower_bound=Q1-1.5*IQR
upper_bound=Q3+1.5*IQR
outliers=[x for x in data if x<lower_bound or x>upper_bound]
print(lower_bound)
print(outliers)
print("Upper Bound",upper_bound)
plt.figure(figsize=(10,5))
sns.boxplot(x=data,color='lightgreen',width=0.3)
plt.xlabel('Value')
plt.show()
```

```
52.0 54.0 57.5
middle 50 values [52, 52, 53, 55, 56]
interquartile range 5.5
43.75
[80]
Upper Bound 65.75
```



In [ ]: