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Roll No : 20U437

Div : 4

```
import pandas as pd
df = pd.read_csv('Iris.csv')
print(df)
```

```
      Id  SepalLengthCm  SepalWidthCm  PetalLengthCm  PetalWidthCm  \
0      1            5.1           3.5            1.4           0.2
1      2            4.9           3.0            1.4           0.2
2      3            4.7           3.2            1.3           0.2
3      4            4.6           3.1            1.5           0.2
4      5            5.0           3.6            1.4           0.2
..   ...            ...           ...            ...           ...
145  146            6.7           3.0            5.2           2.3
146  147            6.3           2.5            5.0           1.9
147  148            6.5           3.0            5.2           2.0
148  149            6.2           3.4            5.4           2.3
149  150            5.9           3.0            5.1           1.8

            Species
0       Iris-setosa
1       Iris-setosa
2       Iris-setosa
3       Iris-setosa
4       Iris-setosa
..              ...
145  Iris-virginica
146  Iris-virginica
147  Iris-virginica
148  Iris-virginica
149  Iris-virginica

[150 rows x 6 columns]
```

```
df.columns
```

```
Index(['Id', 'SepalLengthCm', 'SepalWidthCm', 'PetalLengthCm',
'PetalWidthCm',
       'Species'],
      dtype='object')
```

```
print(df.dtypes)
```

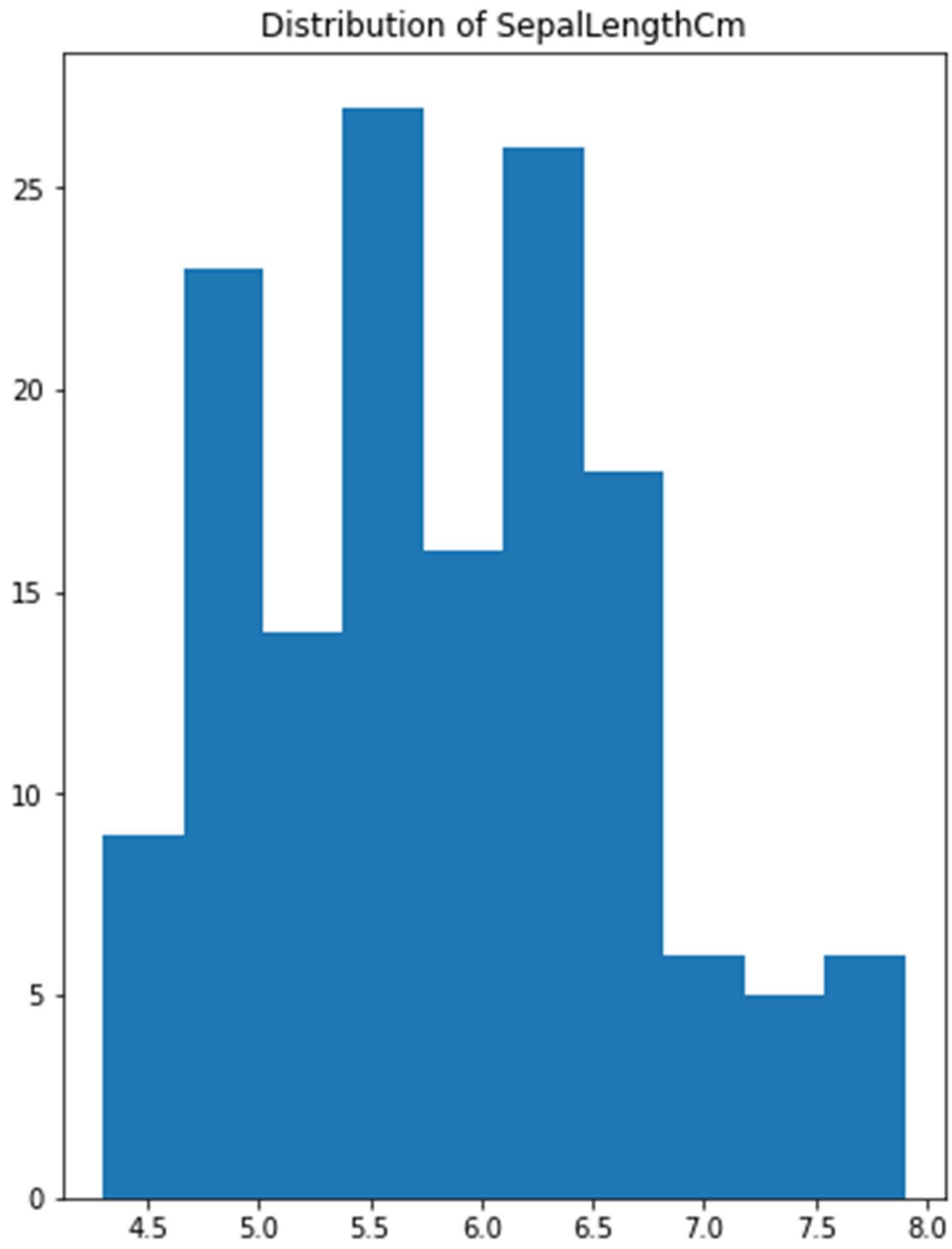
```
Id                int64
SepalLengthCm    float64
```

```
SepalWidthCm     float64
PetalLengthCm    float64
PetalWidthCm     float64
Species           object
dtype: object
```

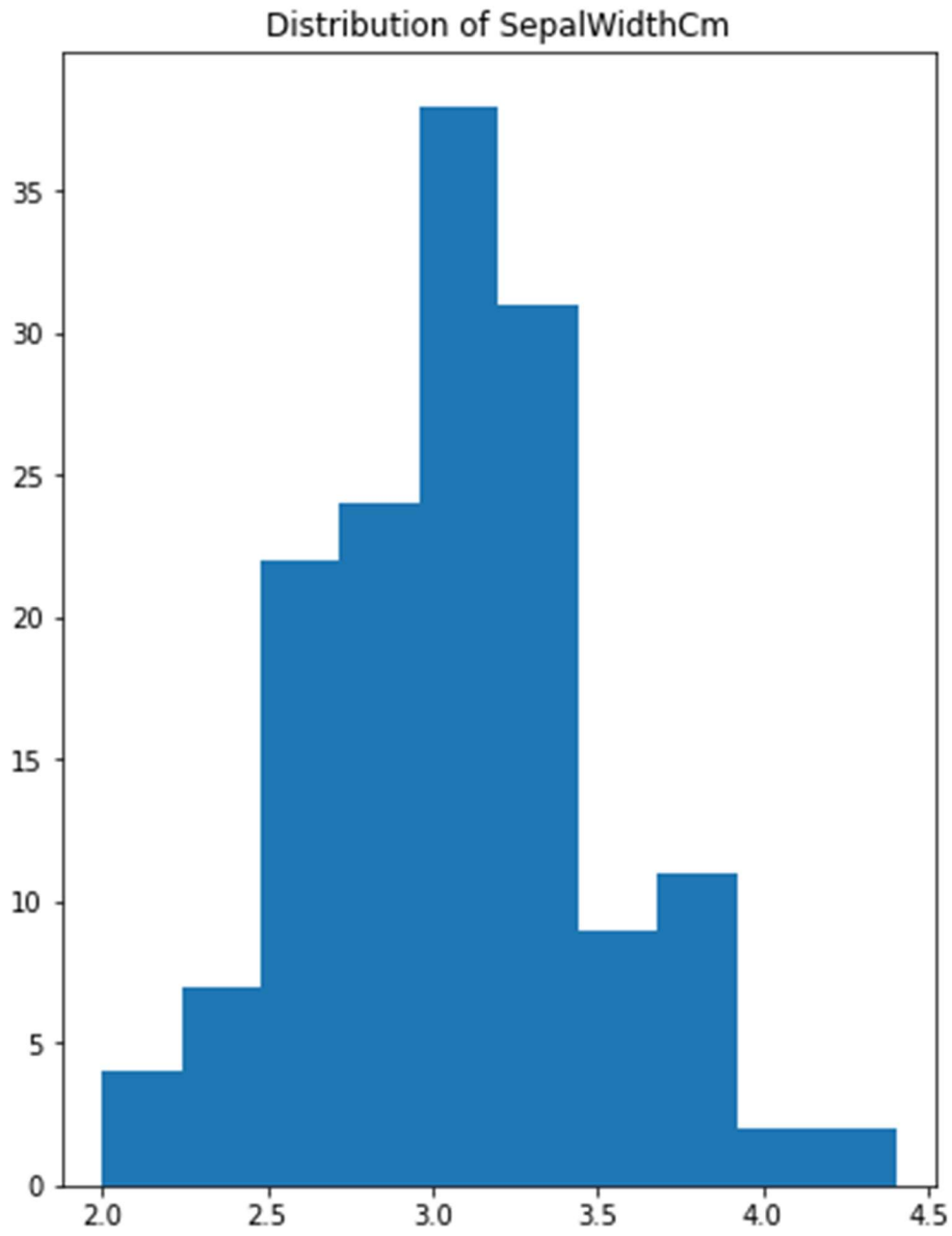
```
df.describe
```

```
<bound method NDFrame.describe of       Id  SepalLengthCm  SepalWidthCm
PetalLengthCm  PetalWidthCm  \
0      1            5.1           3.5            1.4           0.2
1      2            4.9           3.0            1.4           0.2
2      3            4.7           3.2            1.3           0.2
3      4            4.6           3.1            1.5           0.2
4      5            5.0           3.6            1.4           0.2
..   ...            ...           ...            ...           ...
145  146            6.7           3.0            5.2           2.3
146  147            6.3           2.5            5.0           1.9
147  148            6.5           3.0            5.2           2.0
148  149            6.2           3.4            5.4           2.3
149  150            5.9           3.0            5.1           1.8

            Species
0       Iris-setosa
1       Iris-setosa
2       Iris-setosa
3       Iris-setosa
4       Iris-setosa
..              ...
145  Iris-virginica
146  Iris-virginica
147  Iris-virginica
148  Iris-virginica
149  Iris-virginica

[150 rows x 6 columns]>
```

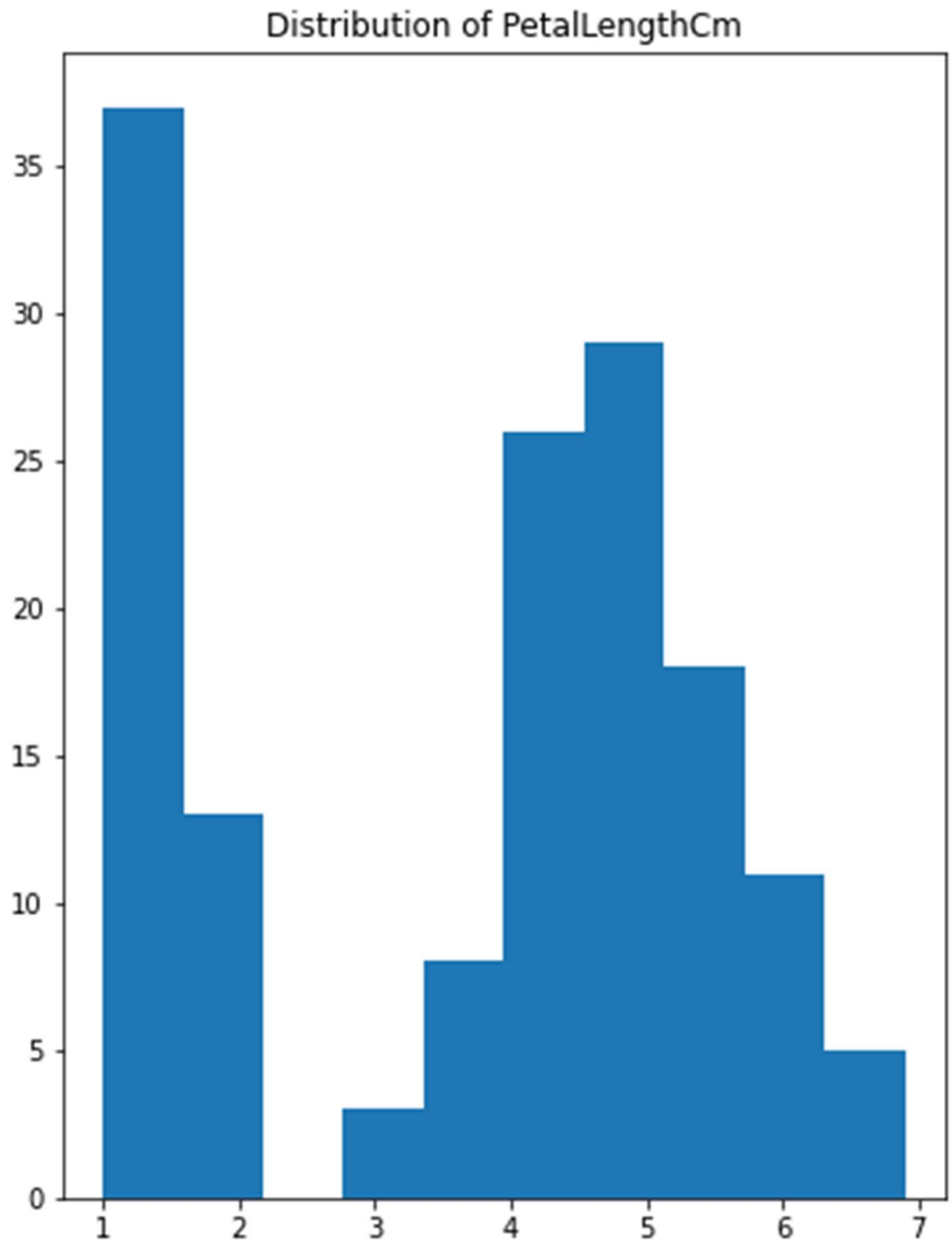
```
import seaborn as sns
import matplotlib
import matplotlib.pyplot as plt

fig, axes = plt.subplots(figsize=(6,8))
axes.set_title('Distribution of SepalLengthCm')

axes.hist(df['SepalLengthCm'],bins=10)
plt.show()
```



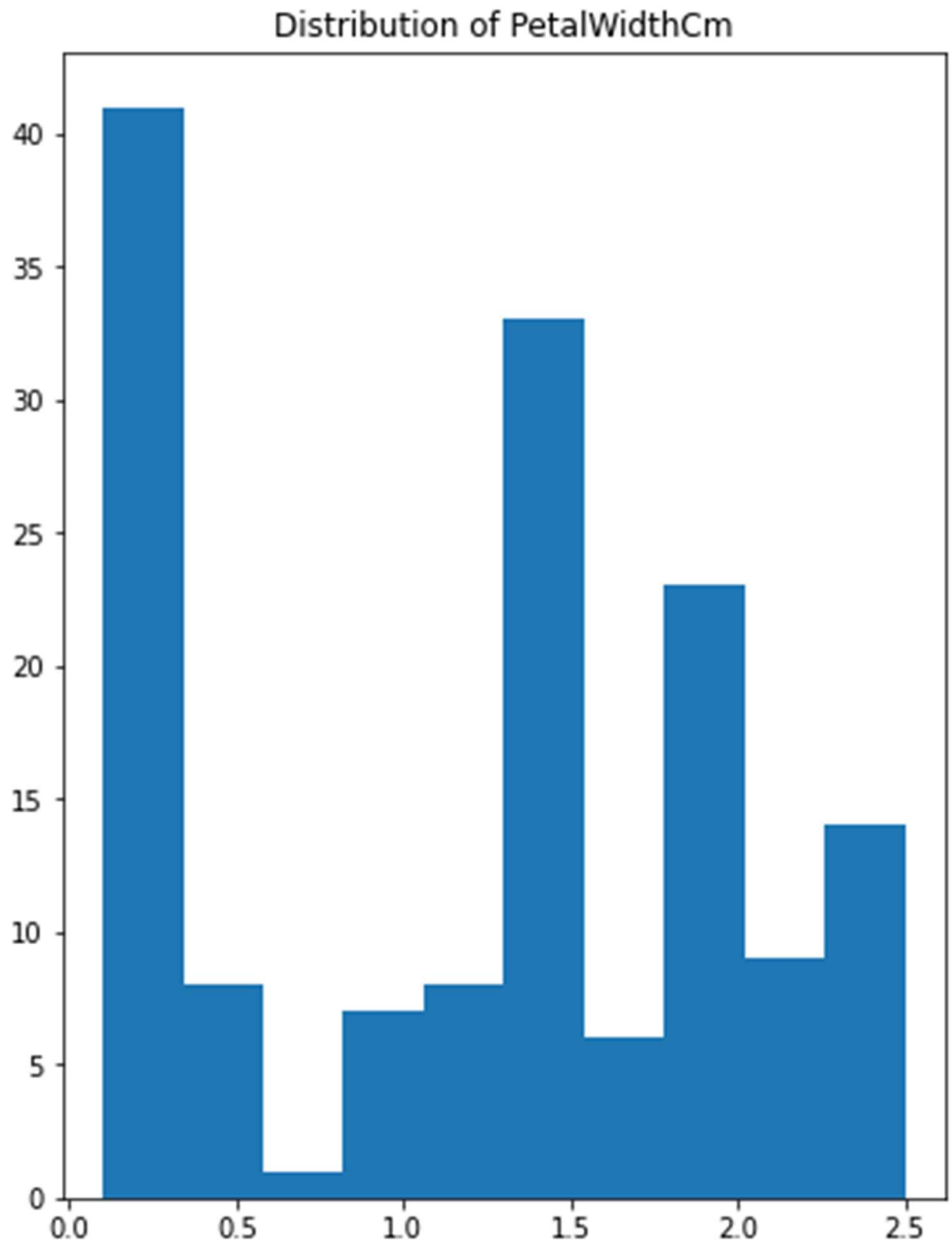

```
fig, axes = plt.subplots(figsize=(6,8))
axes.set_title('Distribution of SepalWidthCm')
axes.hist(df['SepalWidthCm'],bins=10)
plt.show()
```



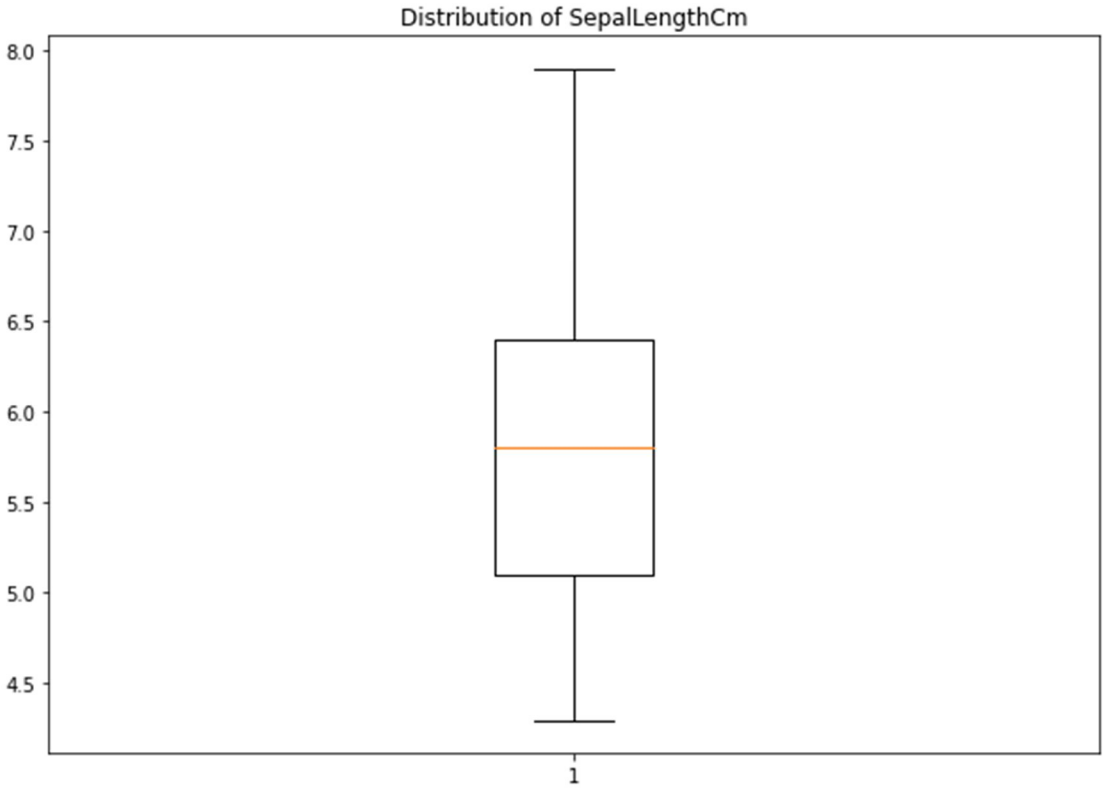

```
fig, axes = plt.subplots(figsize=(6,8))
axes.set_title('Distribution of PetalLengthCm')
axes.hist(df['PetalLengthCm'],bins=10)
plt.show()
```



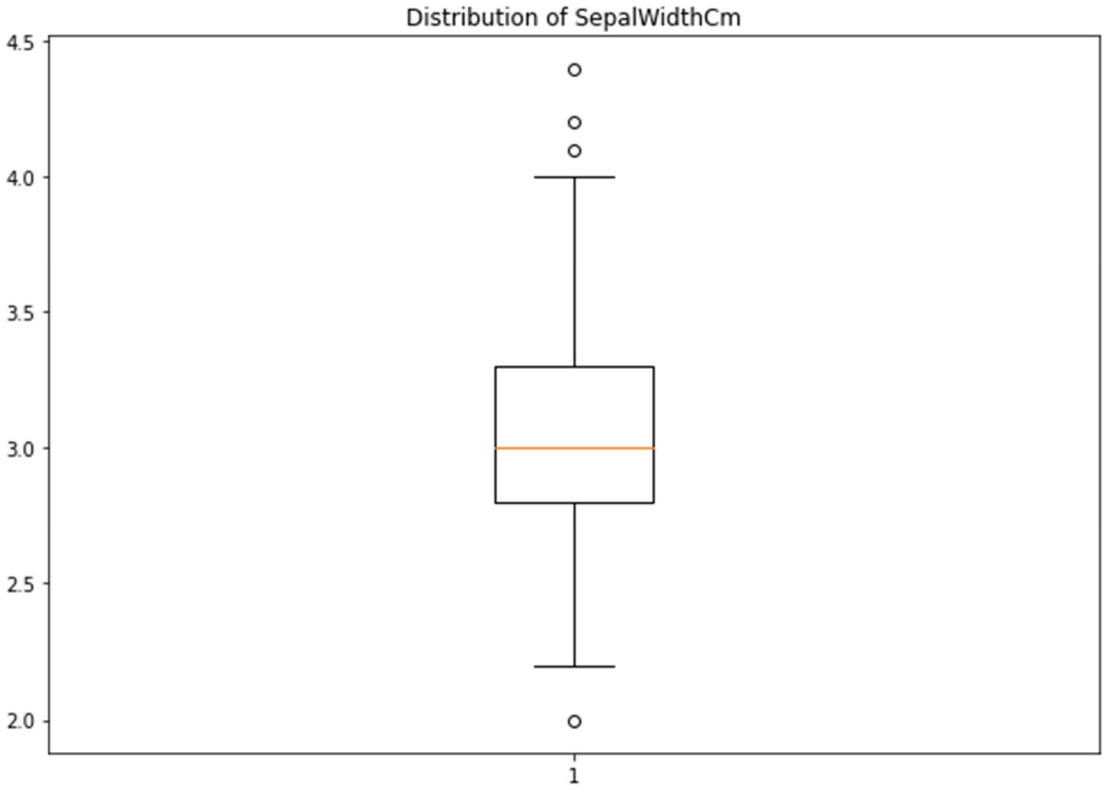

```
fig, axes = plt.subplots(figsize=(6,8))
axes.set_title('Distribution of PetalWidthCm')
axes.hist(df['PetalWidthCm'],bins=10)
plt.show()
```



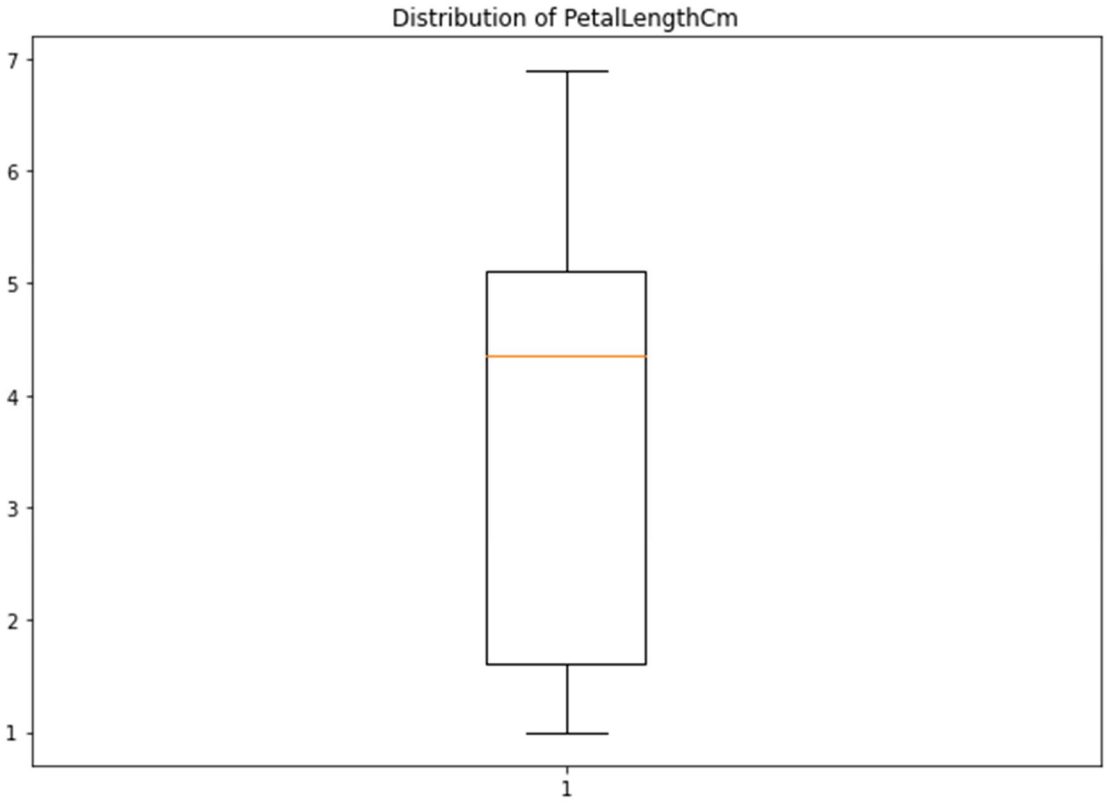

```
fig, axes = plt.subplots(figsize=(10,7))
axes.set_title('Distribution of SepalLengthCm')
axes.boxplot(df['SepalLengthCm'])
plt.show()
```



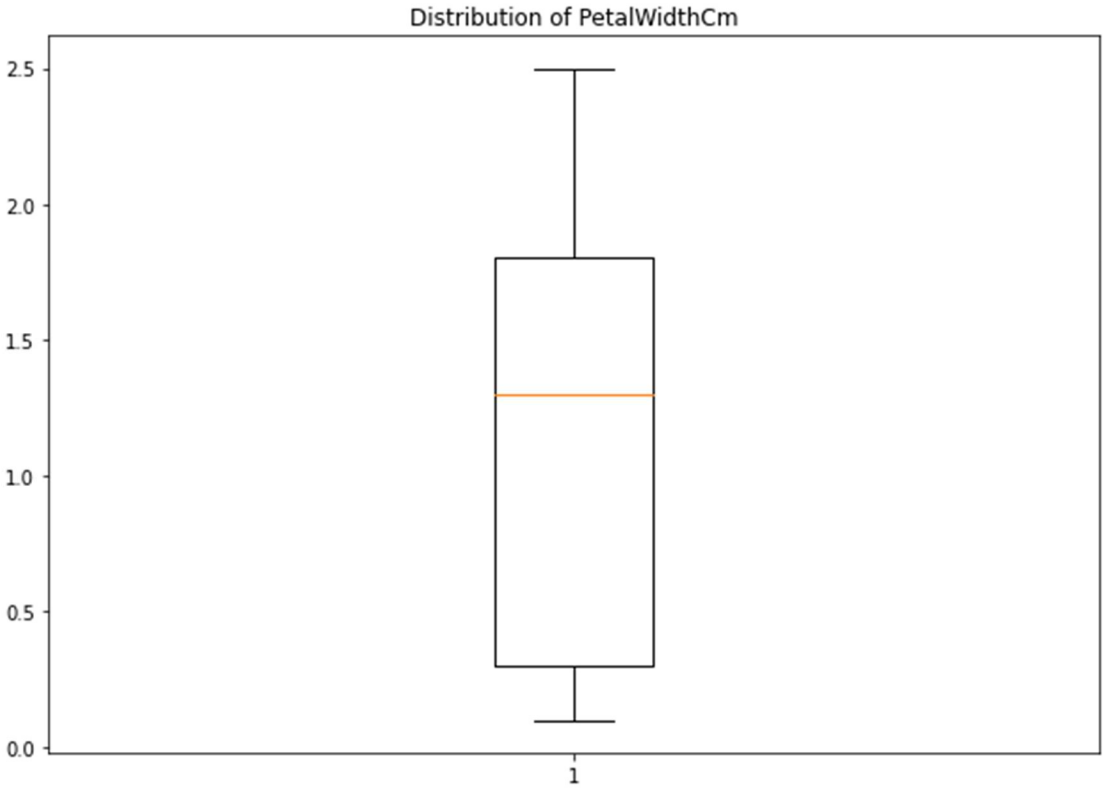

```
fig, axes = plt.subplots(figsize=(10,7))
axes.set_title('Distribution of SepalWidthCm')
axes.boxplot(df['SepalWidthCm'])
plt.show()
```




```
fig, axes = plt.subplots(figsize=(10,7))
axes.set_title('Distribution of PetalLengthCm')
axes.boxplot(df['PetalLengthCm'])
plt.show()
```




```
fig, axes = plt.subplots(figsize=(10,7))
axes.set_title('Distribution of PetalWidthCm')
axes.boxplot(df['PetalWidthCm'])
plt.show()
```


Distribution of PetalWidthCm
2.5
2.0
1.5
1.0
0.5
0.0
1