


▼ Step 1 Import Libraries

```
import pandas as pd
import numpy as np
import seaborn as sns
print(sns.__version__)
```

0.11.2

▼ Step 2 Load Dataset

```
irisData = pd.read_csv("/content/drive/MyDrive/Colab Notebooks/DBBD/Iris.csv")
irisData.head()
```



	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa

▼ Step 3 Data Preprocessing

```
irisData.describe()
```

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
count	150.000000	150.000000	150.000000	150.000000	150.000000

```
irisData.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 6 columns):
#   Column          Non-Null Count  Dtype
---  -
0   Id               150 non-null    int64
1   SepalLengthCm    150 non-null    float64
2   SepalWidthCm     150 non-null    float64
3   PetalLengthCm    150 non-null    float64
4   PetalWidthCm     150 non-null    float64
5   Species          150 non-null    object
dtypes: float64(4), int64(1), object(1)
memory usage: 7.2+ KB
```

```
irisData.dtypes
```

```
Id                int64
SepalLengthCm     float64
SepalWidthCm      float64
PetalLengthCm     float64
PetalWidthCm      float64
Species           object
dtype: object
```

▼ Step 4 Data Visualization

```
sns.distplot(irisData["PetalWidthCm"])
```

```
/usr/local/lib/python3.7/dist-packages/seaborn/distributions.py:2619: FutureWarning: `di
warnings.warn(msg, FutureWarning)
/matplotlib/axes/_subplots.py:45: AxesSubplot at 0x7f8f05a55d90:
```

```
irisData.head(10)
```

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa
5	6	5.4	3.9	1.7	0.4	Iris-setosa
6	7	4.6	3.4	1.4	0.3	Iris-setosa
7	8	5.0	3.4	1.5	0.2	Iris-setosa
8	9	4.4	2.9	1.4	0.2	Iris-setosa
9	10	4.9	3.1	1.5	0.1	Iris-setosa

```
irisData["Species"].value_counts()
```

```
Iris-setosa      50
Iris-versicolor  50
Iris-virginica   50
Name: Species, dtype: int64
```

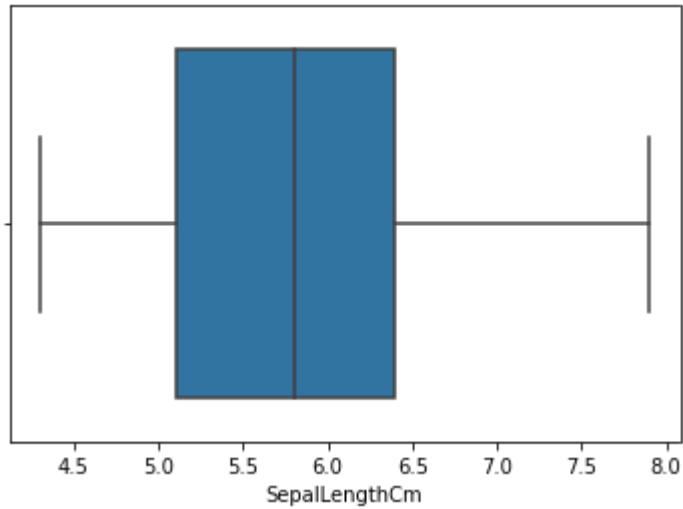
```
categoricalData = {'Iris-versicolor':0,'Iris-virginica':1,'Iris-setosa':2}
irisData["Species"] = irisData["Species"].map(categoricalData)
```

```
irisData.head()
```

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	2
1	2	4.9	3.0	1.4	0.2	2
2	3	4.7	3.2	1.3	0.2	2
3	4	4.6	3.1	1.5	0.2	2
4	5	5.0	3.6	1.4	0.2	2

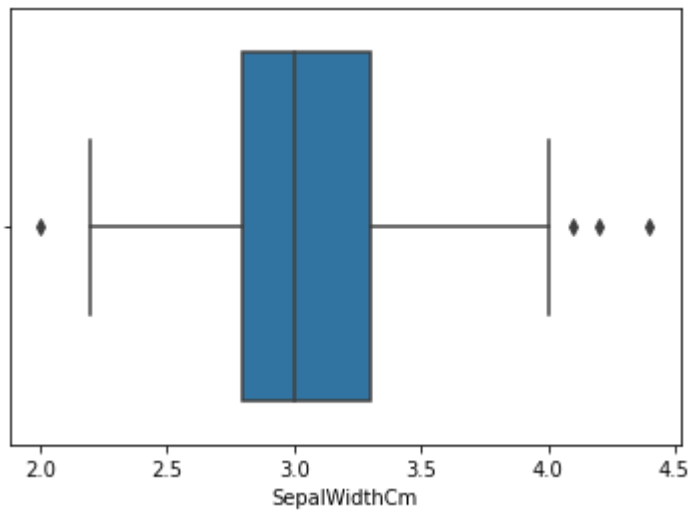
```
sns.boxplot(x="SepalLengthCm",data=irisData)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f8f05af4650>
```



```
sns.boxplot(x="SepalWidthCm",data=irisData)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f8f05484710>
```



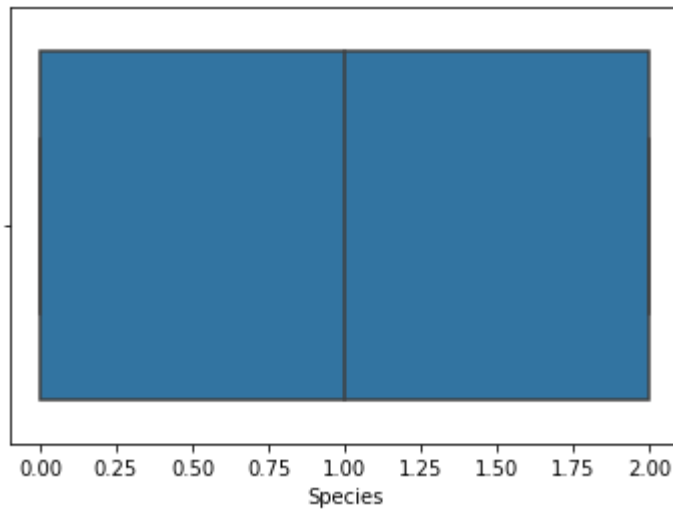
```
sns.boxplot(x="PetalLengthCm",data=irisData)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f8f054ab850>
```



```
sns.boxplot(x="Species",data=irisData)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f8f053f68d0>
```



```
sns.histplot(data=irisData)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f8f05361d10>
```

