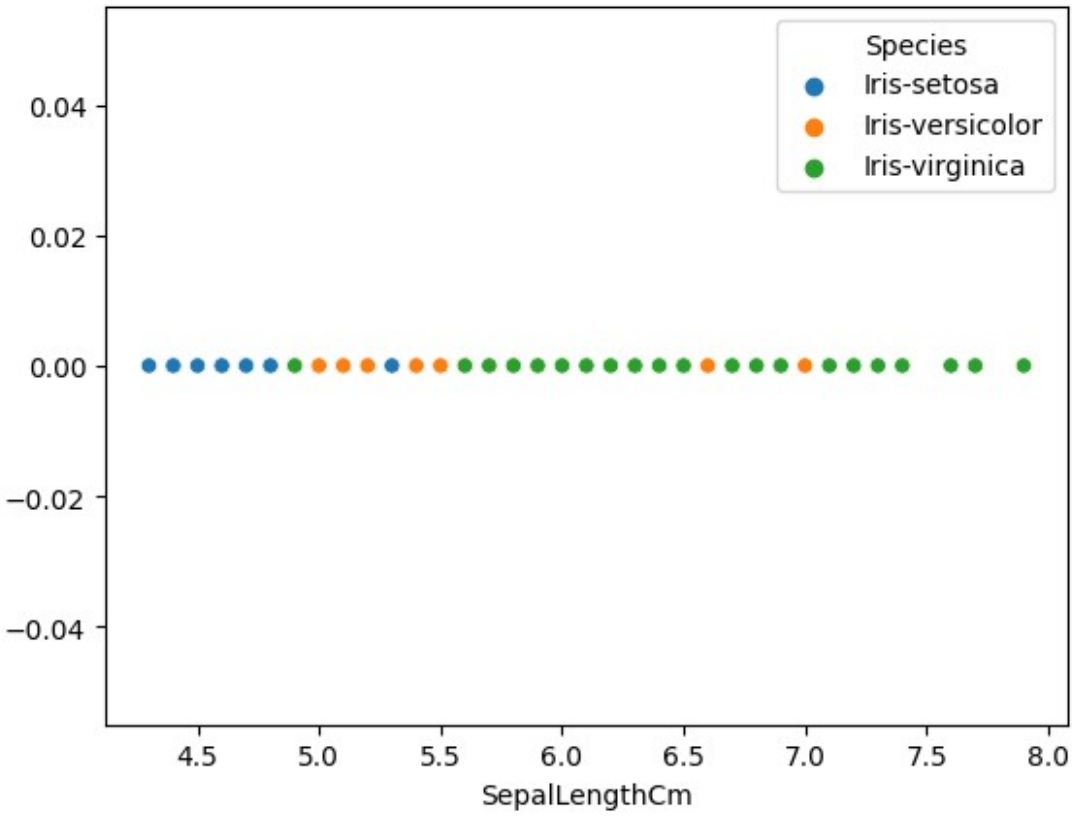
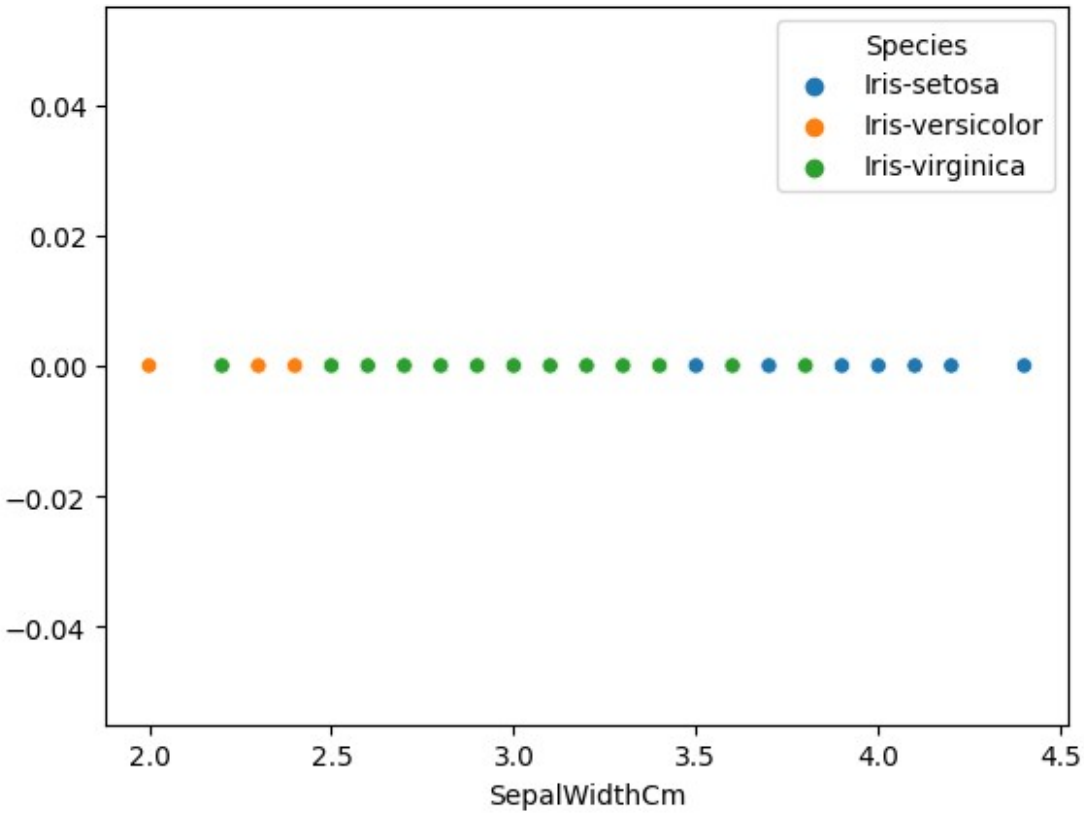
```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import warnings
warnings.filterwarnings("ignore", category=FutureWarning)
warnings.filterwarnings("ignore", category=UserWarning)
df=pd.read_csv('/kaggle/input/irissss/Iris.csv')
df.head()
```

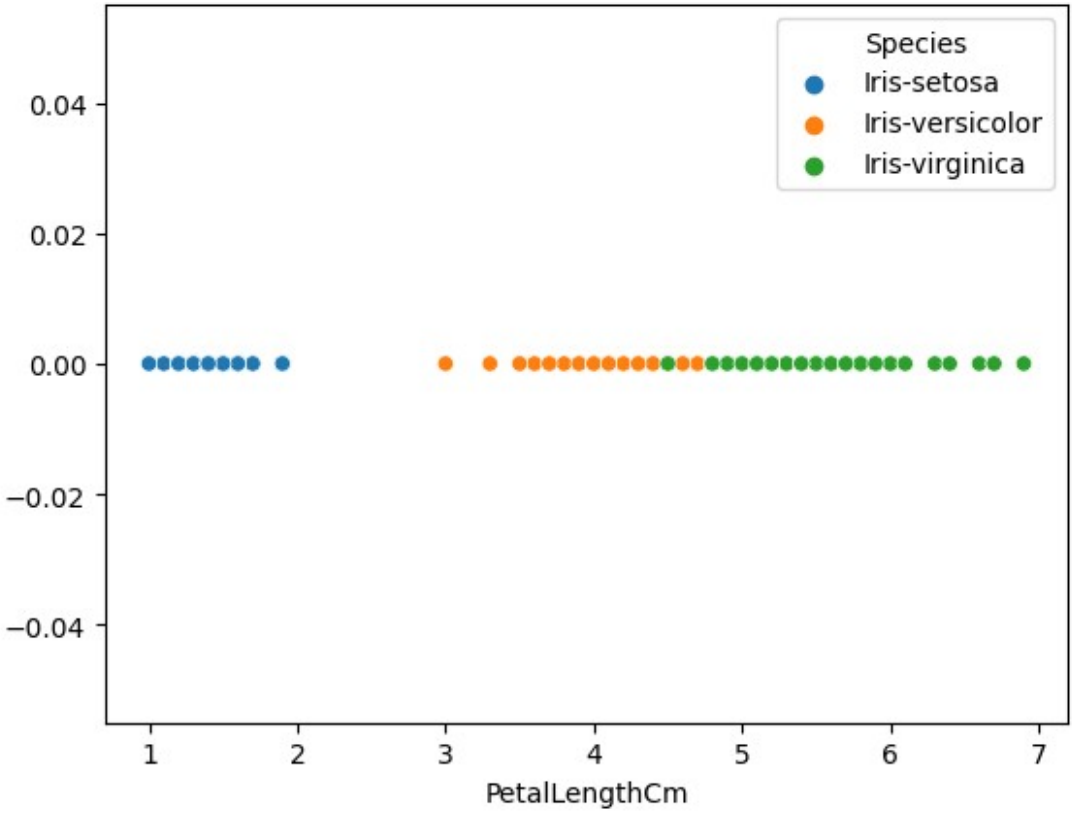
```
   Id  SepalLengthCm  SepalWidthCm  PetalLengthCm  PetalWidthCm
Species
0   1            5.1           3.5            1.4           0.2  Iris-
setosa
1   2            4.9           3.0            1.4           0.2  Iris-
setosa
2   3            4.7           3.2            1.3           0.2  Iris-
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
```

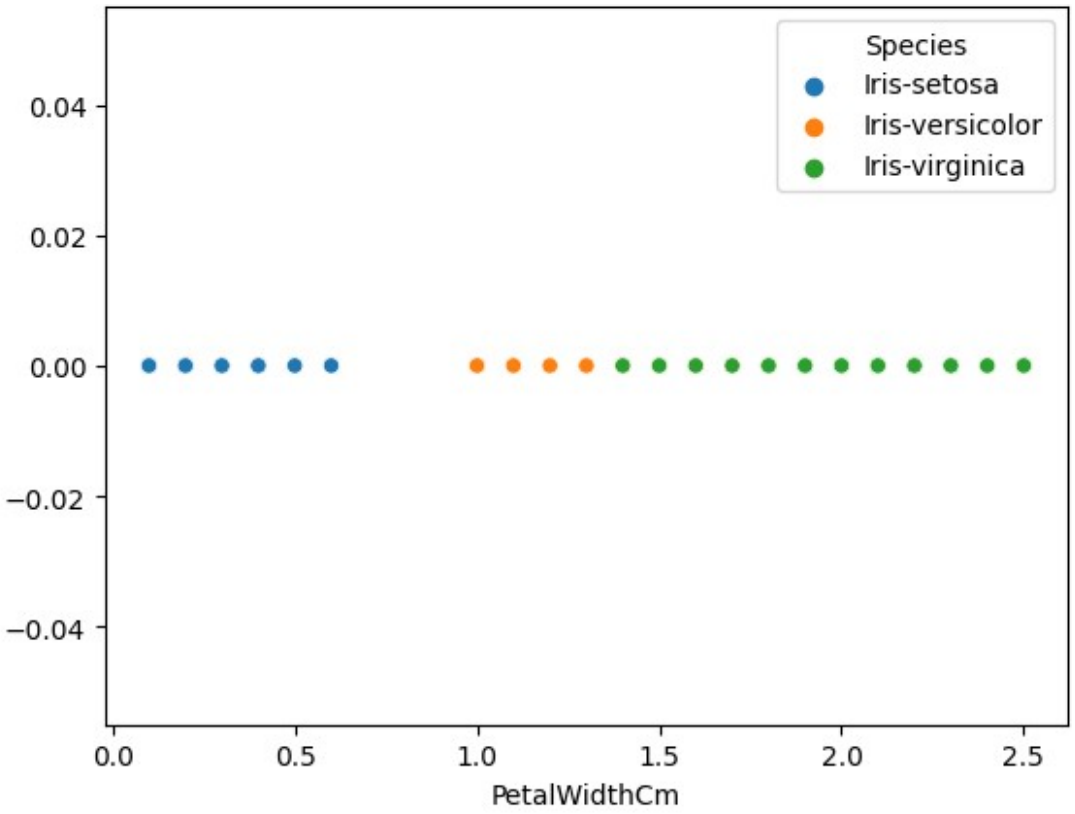
PERFORMING UNIVARIATE ANALYSIS

```
sns.scatterplot(data=df, x="SepalLengthCm", y=0, hue="Species")
plt.show()
sns.scatterplot(data=df, x="SepalWidthCm", y=0, hue="Species")
plt.show()
sns.scatterplot(data=df, x="PetalLengthCm", y=0, hue="Species")
plt.show()
sns.scatterplot(data=df, x="PetalWidthCm", y=0, hue="Species")
plt.show()
```


Species
Iris-setosa
Iris-versicolor
Iris-virginica
0.04
0.02
0.00
−0.02
−0.04
4.5
5.0
5.5
6.0
6.5
7.0
7.5
8.0
SepalLengthCm

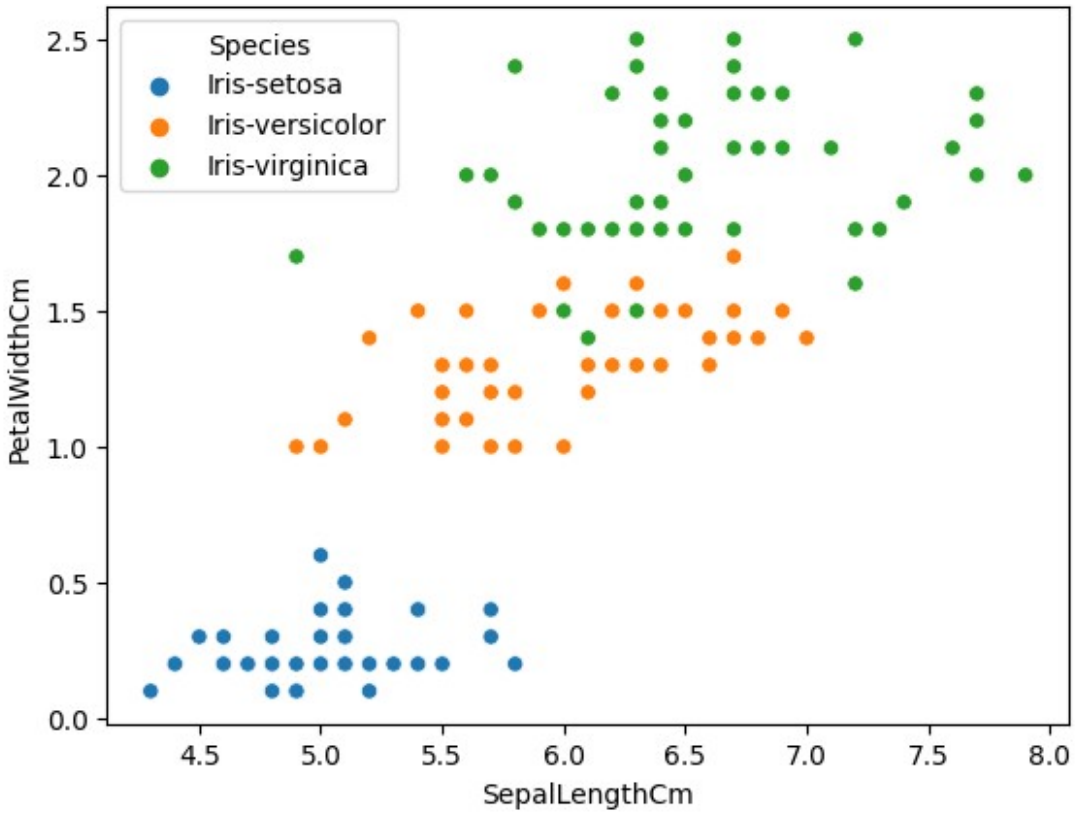

Species
Iris-setosa
Iris-versicolor
Iris-virginica
0.04
0.02
0.00
−0.02
−0.04
2.0
2.5
3.0
3.5
4.0
4.5
SepalWidthCm

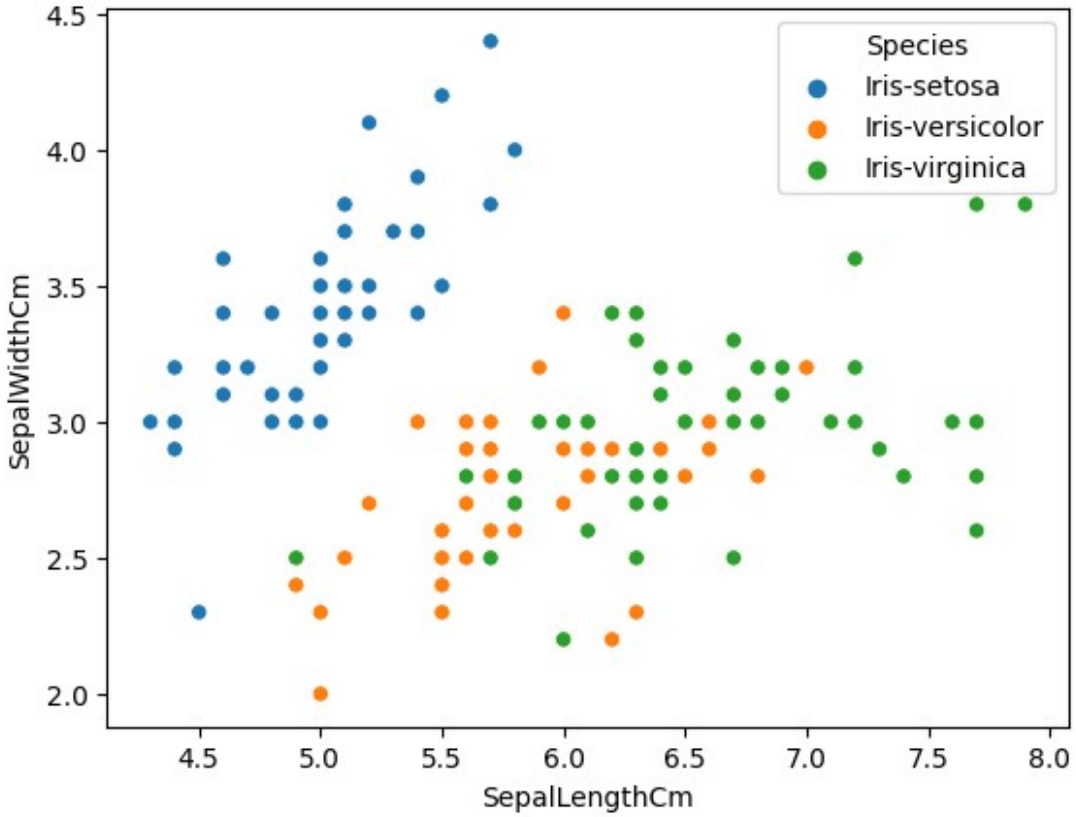

Species
Iris-setosa
Iris-versicolor
Iris-virginica
0.04
0.02
0.00
−0.02
−0.04
1
2
3
4
5
6
7
PetalLengthCm

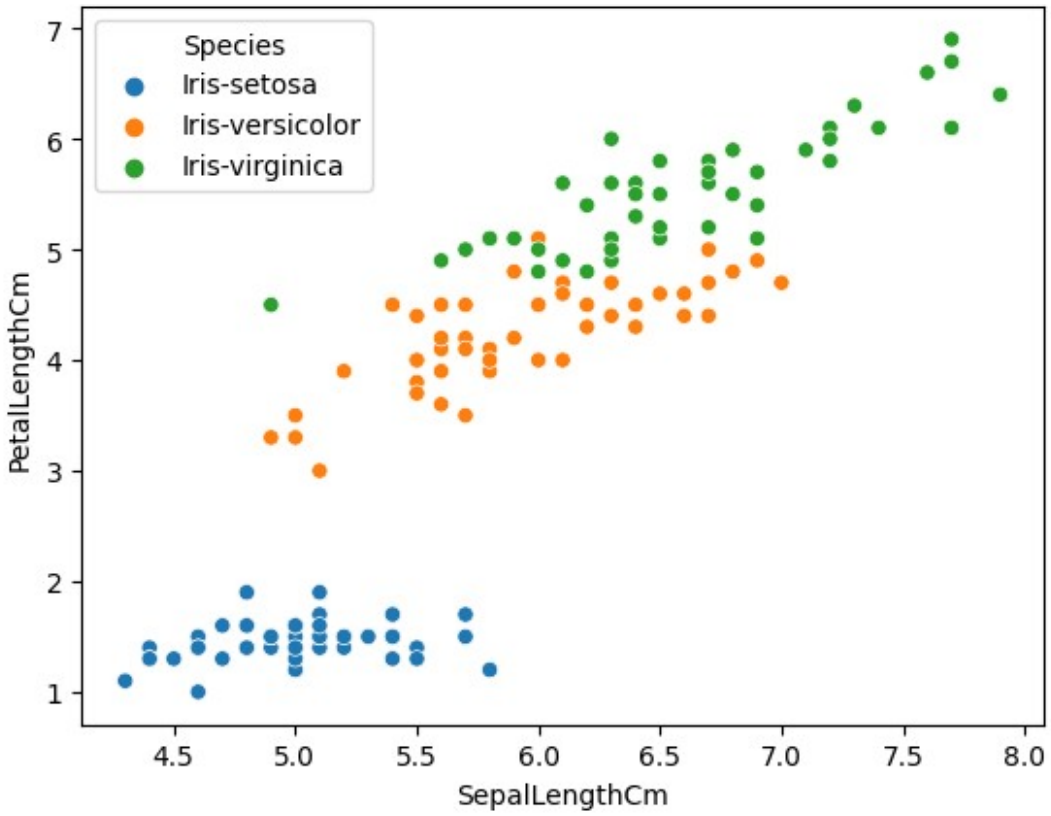

Species
Iris-setosa
Iris-versicolor
Iris-virginica
0.04
0.02
0.00
−0.02
−0.04
0.0
0.5
1.0
1.5
2.0
2.5
PetalWidthCm

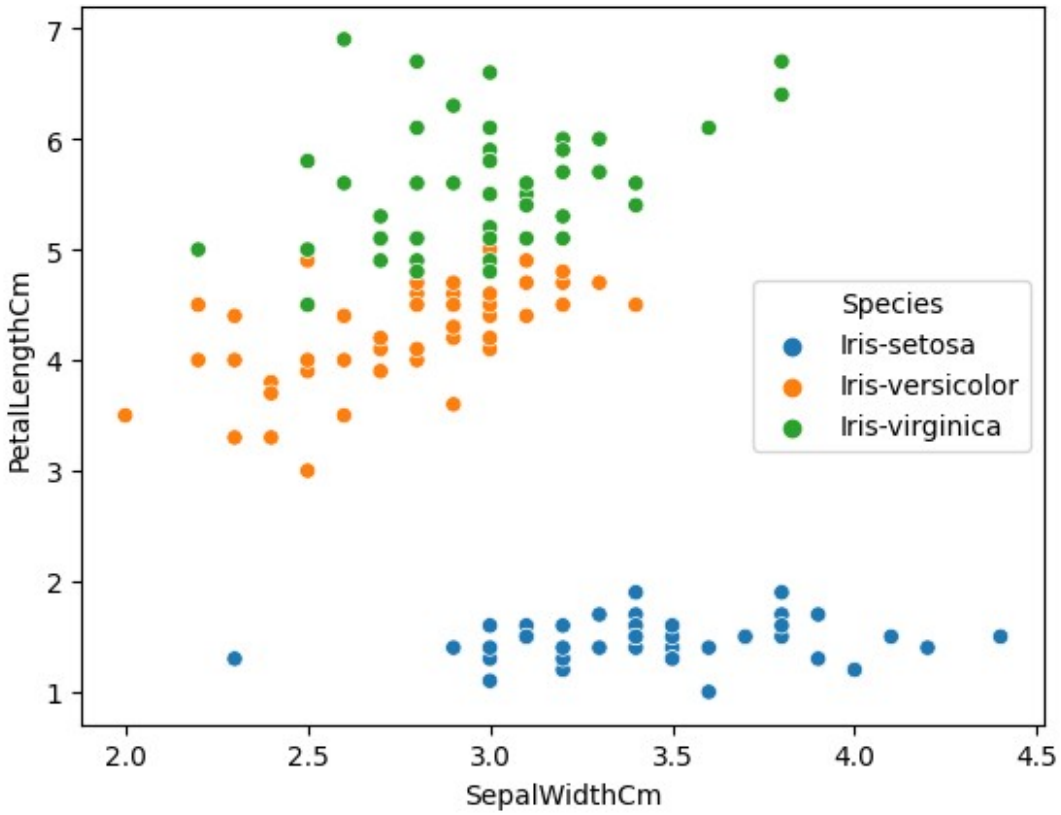
PERFORMING BIVARIATE ANALYSIS

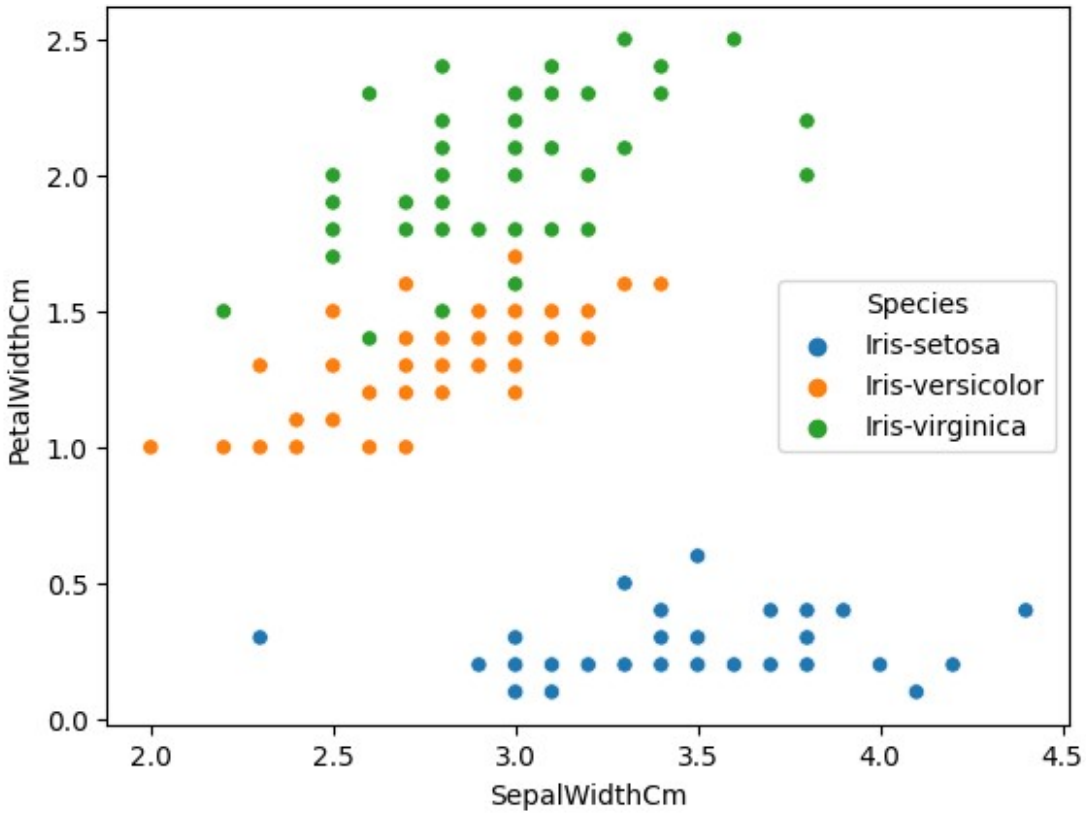
```
sns.scatterplot(data=df, x="SepalLengthCm", y='PetalWidthCm',
hue="Species")
plt.show()
sns.scatterplot(data=df, x="SepalLengthCm", y='SepalWidthCm',
hue="Species")
plt.show()
sns.scatterplot(data=df, x="SepalLengthCm", y='PetalLengthCm',
hue="Species")
plt.show()
sns.scatterplot(data=df, x="SepalWidthCm", y='PetalLengthCm',
hue="Species")
plt.show()
sns.scatterplot(data=df, x="SepalWidthCm", y='PetalWidthCm',
hue="Species")
plt.show()
sns.scatterplot(data=df, x="PetalLengthCm", y='PetalWidthCm',
hue="Species")
plt.show()
```

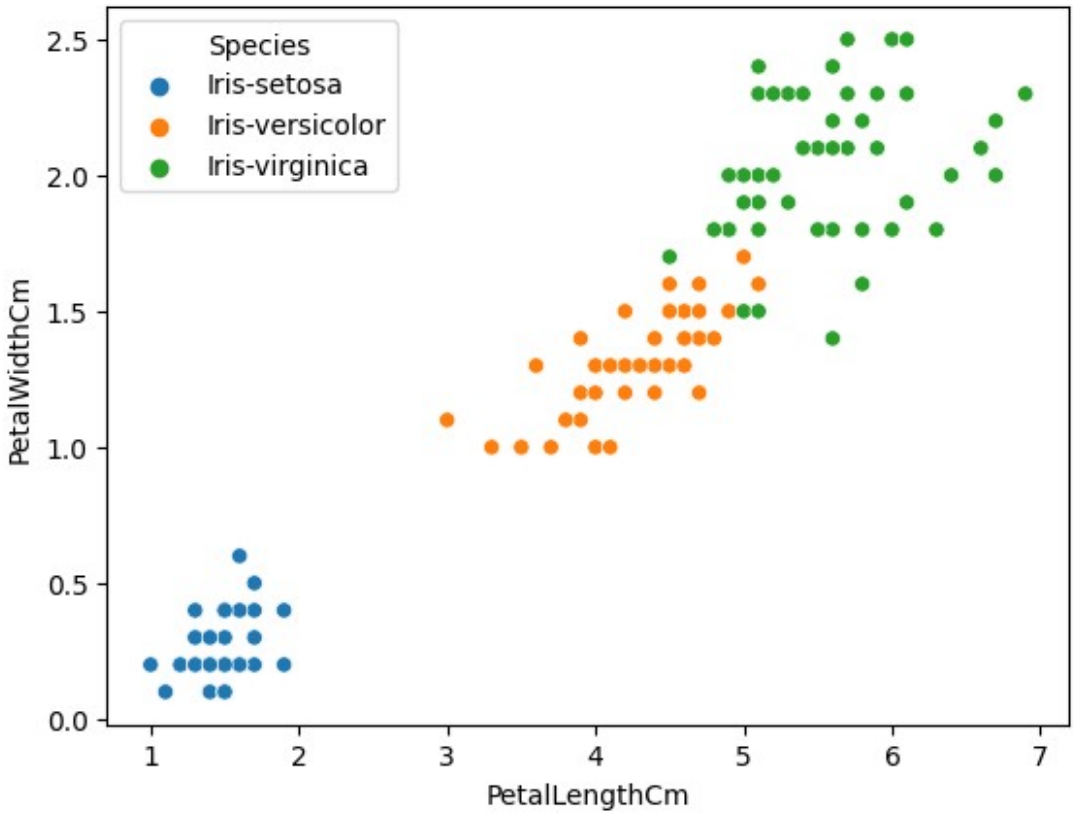



Species
Iris-setosa
Iris-versicolor
Iris-virginica
SepalWidthCm
SepalLengthCm
4.5
4.0
3.5
3.0
2.5
2.0
4.5
5.0
5.5
6.0
6.5
7.0
7.5
8.0


Species
Iris-setosa
Iris-versicolor
Iris-virginica
PetalLengthCm
SepalLengthCm
7
6
5
4
3
2
1
4.5
5.0
5.5
6.0
6.5
7.0
7.5
8.0

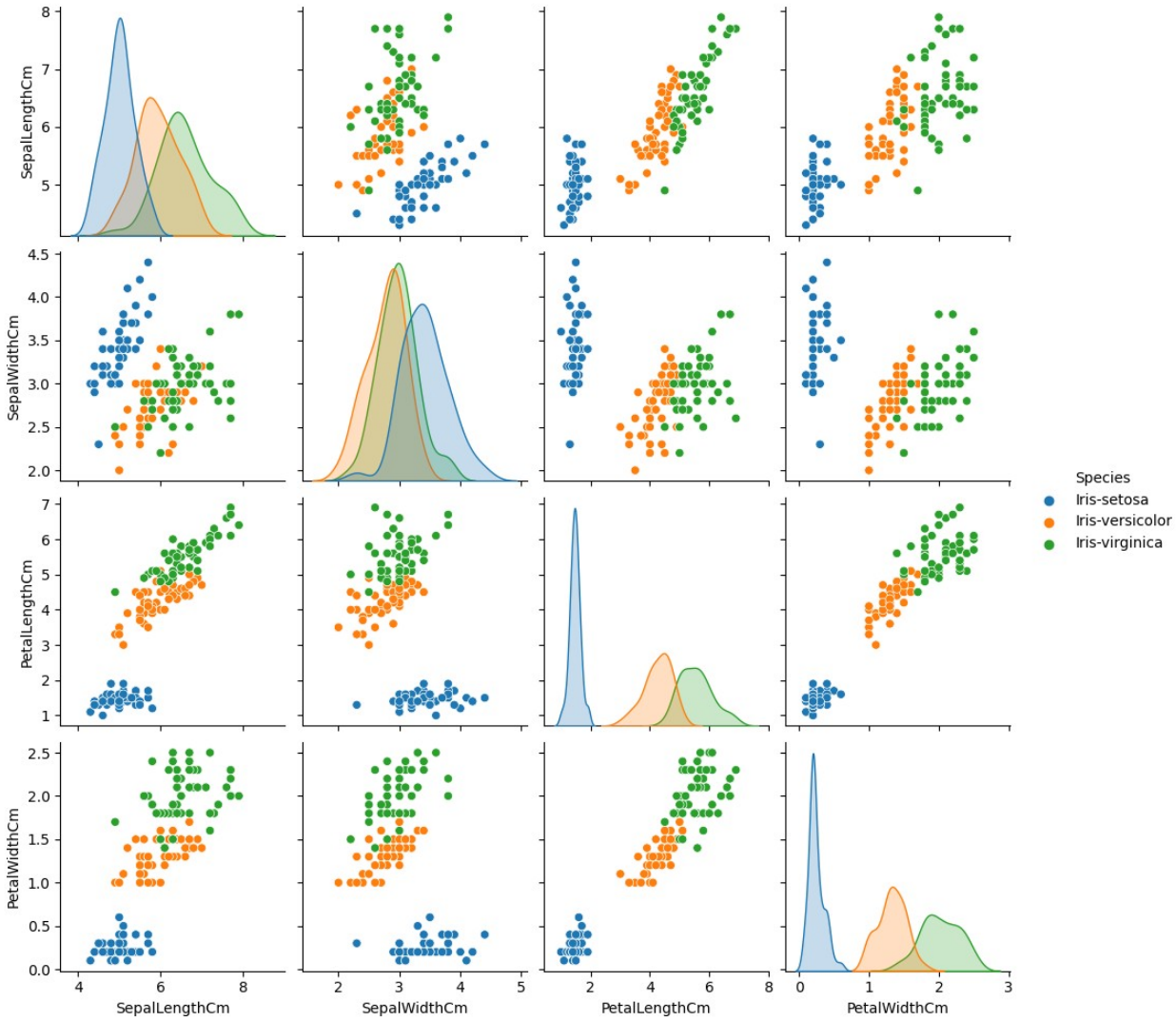

PetalLengthCm
SepalWidthCm
Species
Iris-setosa
Iris-versicolor
Iris-virginica


PetalWidthCm
SepalWidthCm
Species
Iris-setosa
Iris-versicolor
Iris-virginica



PERFORMING MULTIVARIATE ANALYSIS

```
df=df.drop('Id',axis=1)
sns.pairplot(df,diag_kind='kde',hue='Species')
plt.show()
```


SepalLengthCm
SepalWidthCm
PetalLengthCm
PetalWidthCm
Species
Iris-setosa
Iris-versicolor
Iris-virginica