```
import seaborn as sns

# Load the Iris dataset
iris = sns.load_dataset('iris')

# Print the first few rows of the dataset
print(iris.head())
```

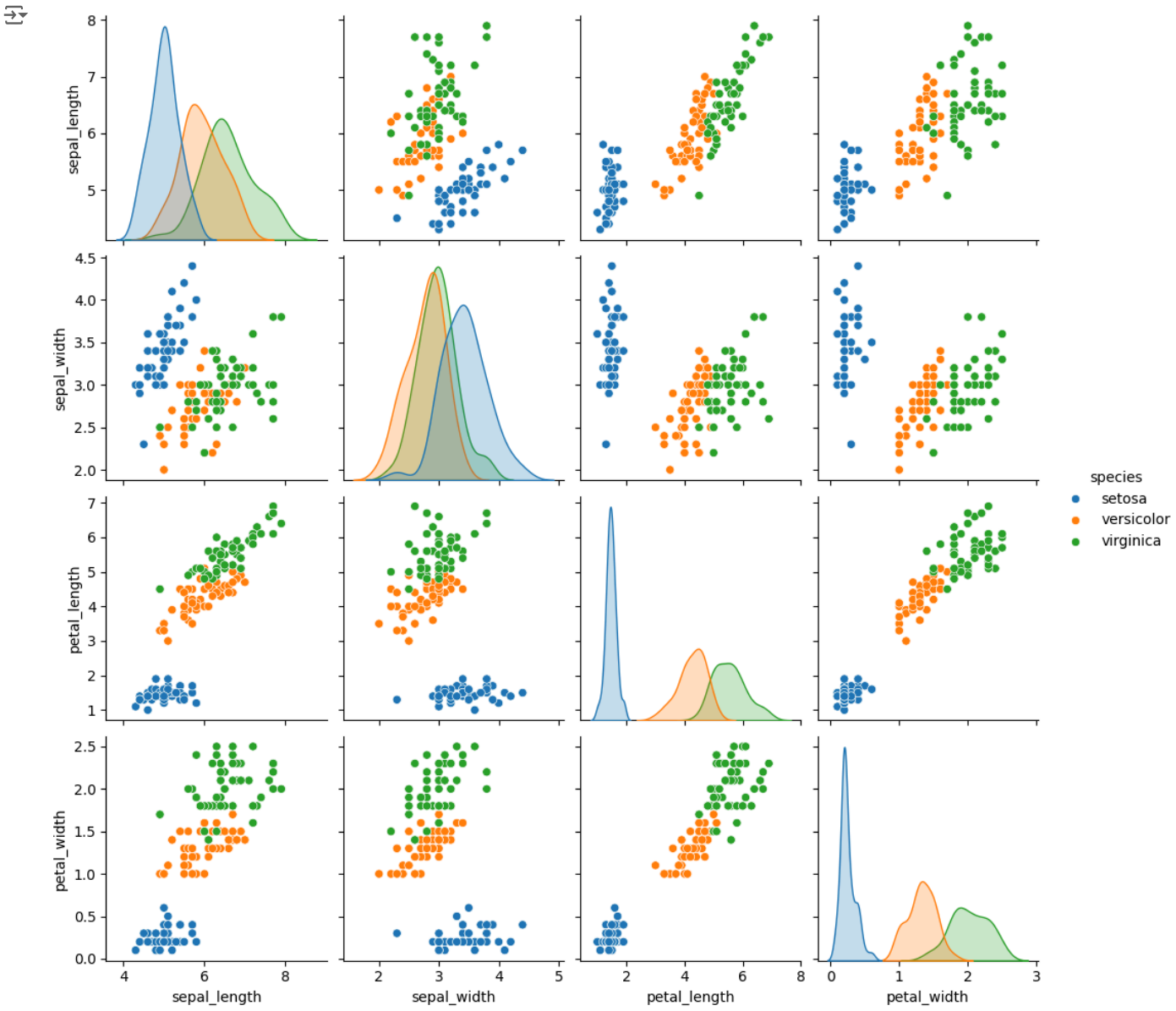
```
   sepal_length  sepal_width  petal_length  petal_width species
0           5.1          3.5           1.4          0.2  setosa
1           4.9          3.0           1.4          0.2  setosa
2           4.7          3.2           1.3          0.2  setosa
3           4.6          3.1           1.5          0.2  setosa
4           5.0          3.6           1.4          0.2  setosa
```

1. **#General Statistics Plot (Matplotlib or Seaborn):**

   Python program to create a plot that gives a general statistical summary of the Iris data. You can use seaborn's pairplot or pandas' describe() for guidance.

+ Code + Text

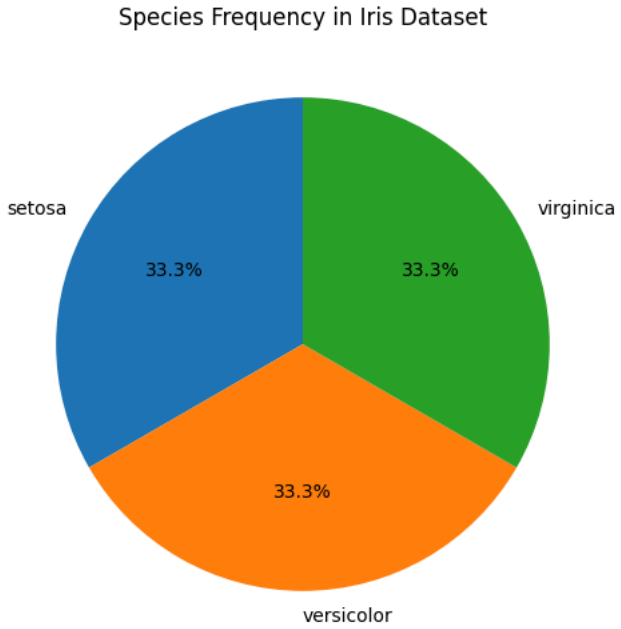
```
sns.pairplot(iris,hue='species',height=2.5)
plt.show()
```



2. **#Pie Plot for Species Frequency:**

Python program to create a pie chart to display the frequency of the three species (setosa, versicolor, virginica) in the Iris dataset.

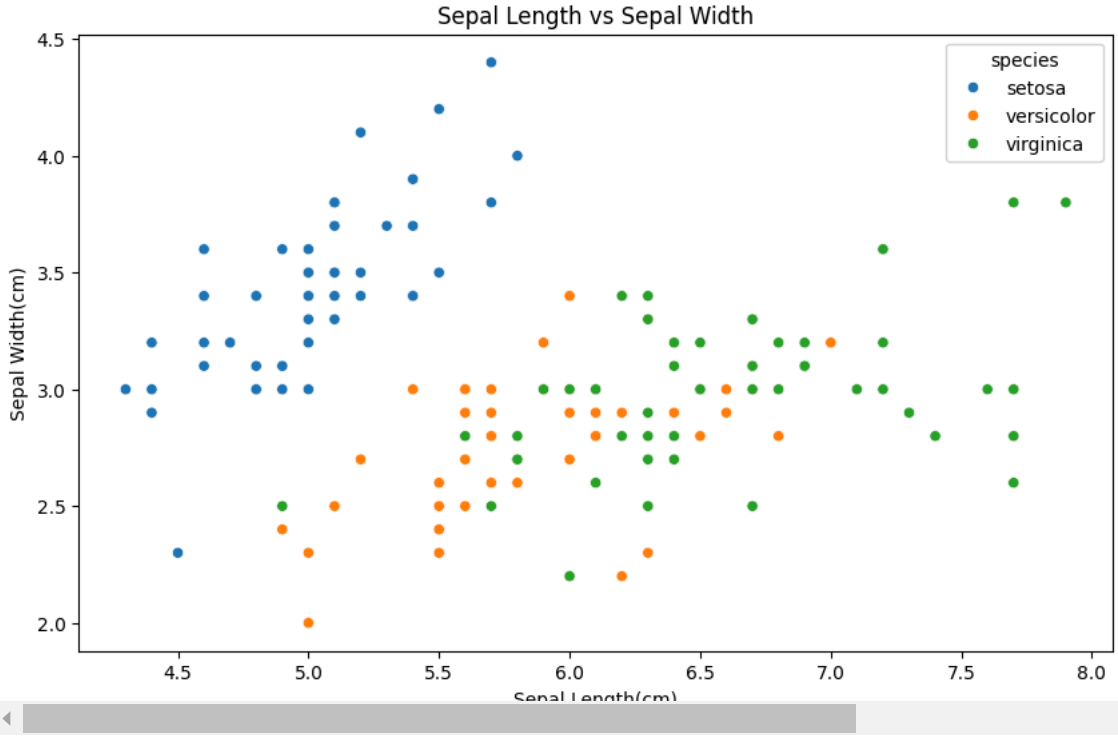
```
import matplotlib.pyplot as plt
species_counts=iris['species'].value_counts()
plt.figure(figsize=(6,6))
plt.pie(species_counts,labels=species_counts.index,autopct='%1.1f%%',startangle=90)
plt.title('Species Frequency in Iris Dataset')
plt.show()
```



3. **Relationship Between Sepal Length and Width:**

Python program to create a scatter plot to find the relationship between sepal length and sepal width for the Iris dataset.

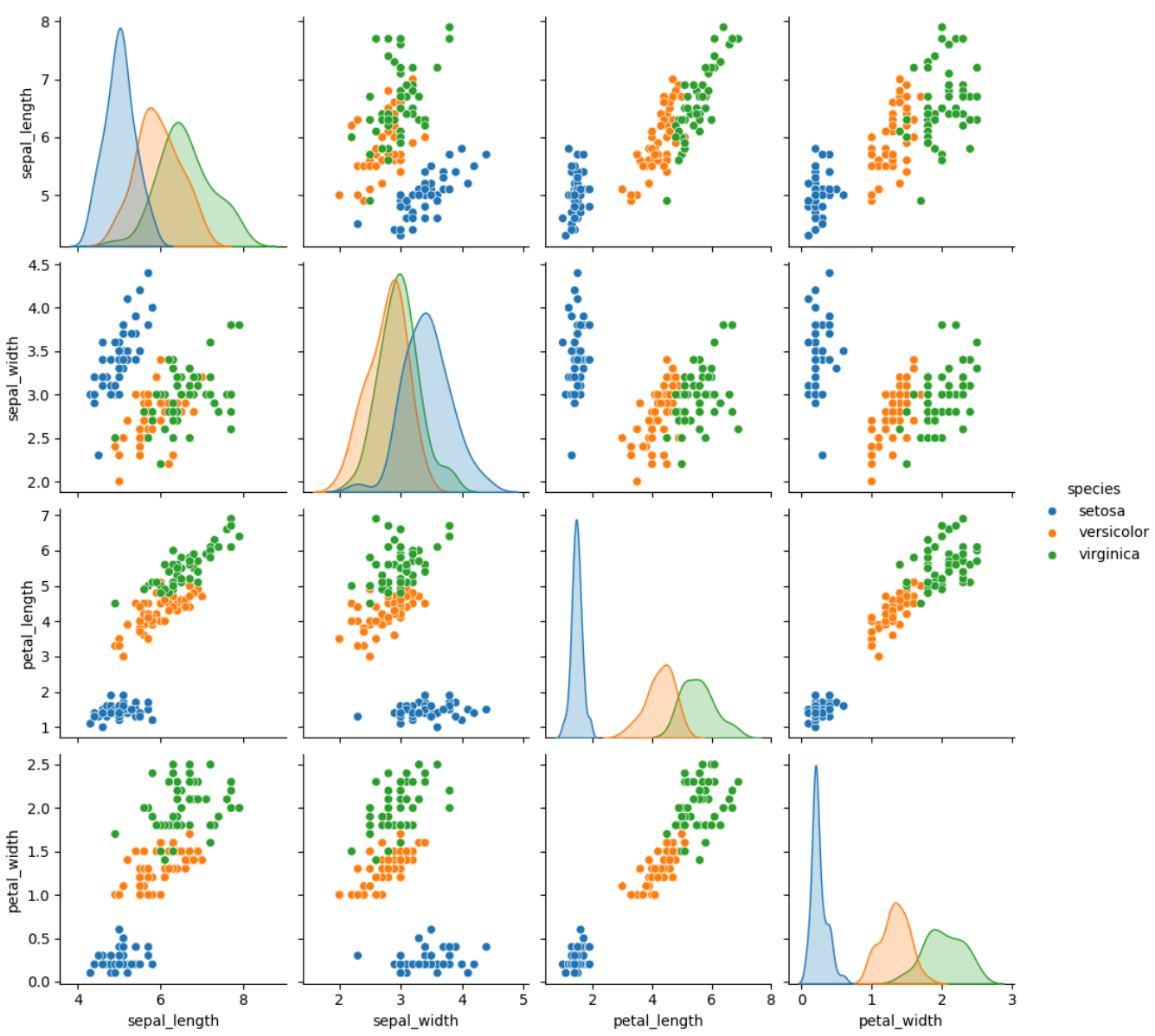
```
plt.figure(figsize=(10,6))
sns.scatterplot(x='sepal_length',y='sepal_width',hue='species',data=iris)
plt.title('Sepal Length vs Sepal Width')
plt.xlabel('Sepal Length(cm)')
plt.ylabel('Sepal Width(cm)')
plt.show()
```



1. Distribution of Sepal and Petal Features:

Python program to create a plot that shows how the length and width of sepal length, sepal width, petal length, and petal width are distributed.

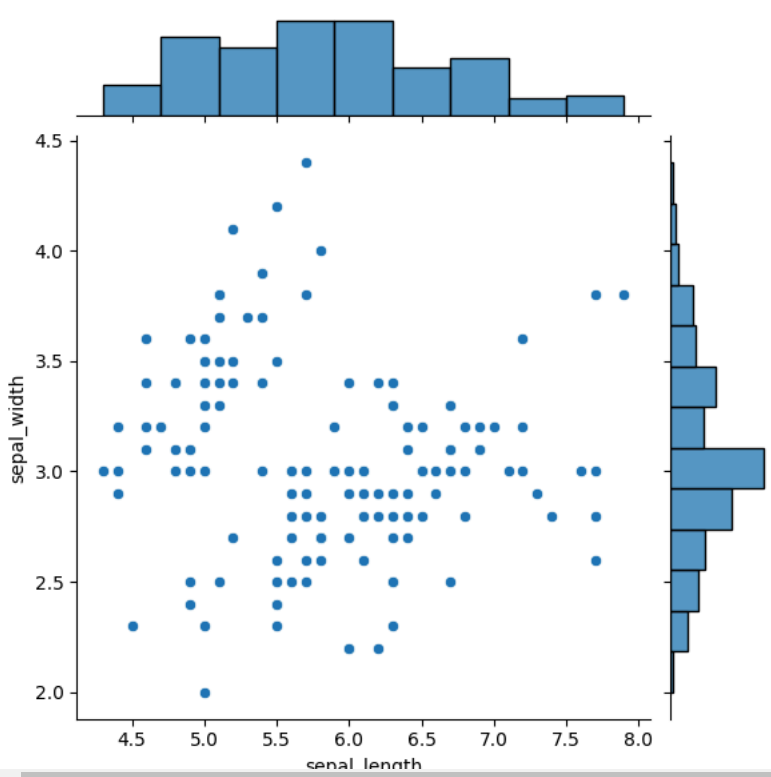
```
sns.pairplot(iris,hue='species',height=2.5)
plt.show()
```



2. **Jointplot of Sepal Length vs Sepal Width:**

   Python program to create a joint plot to describe the individual distributions on the same plot between sepal length and sepal width.

```
sns.jointplot(x='sepal_length',y='sepal_width',data=iris,kind='scatter')
plt.show()
```



3. **KDE Plot for Setosa Species (Sepal Length vs Sepal Width):**

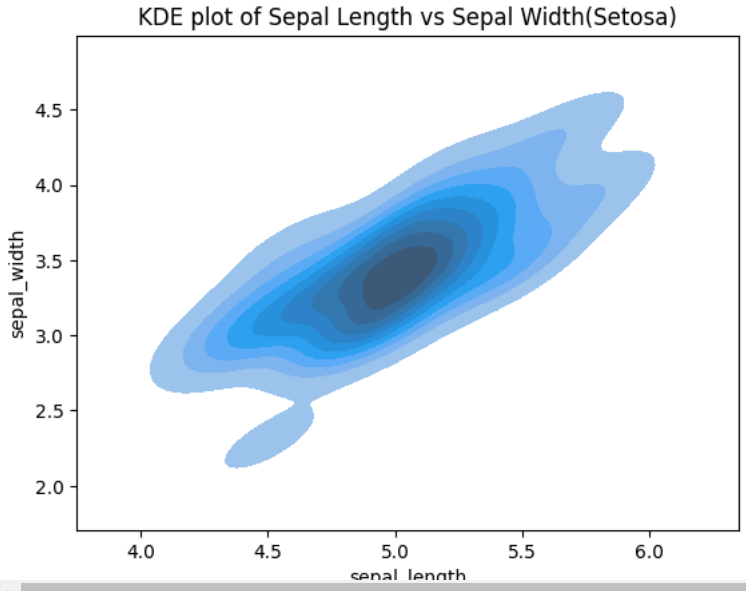
Python program using seaborn to create a KDE (Kernel Density Estimate) plot of sepal length versus sepal width for the setosa species of the Iris dataset.

```
setosa=iris[iris['species']=='setosa']
sns.kdeplot(x='sepal_length',y='sepal_width',data=setosa,shade=True)
plt.title('KDE plot of Sepal Length vs Sepal Width(Setosa)')
plt.show()
```

```
<ipython-input-31-94e1e06dd9ea>:2: FutureWarning:

`shade` is now deprecated in favor of `fill`; setting `fill=True`.
This will become an error in seaborn v0.14.0; please update your code.

  sns.kdeplot(x='sepal_length',y='sepal_width',data=setosa,shade=True)
```



4. **KDE Plot for Setosa Species (Petal Length vs Petal Width):**

Python program using seaborn to create a KDE plot of petal length versus petal width for the setosa species.

```
sns.kdeplot(x='petal_length',y='petal_width',data=setosa,shade=True)
plt.title('KDE plot of Petal Length vs Petal Width(Setosa)')
plt.show()
```

```
<ipython-input-32-ca269698c217>:1: FutureWarning:

`shade` is now deprecated in favor of `fill`; setting `fill=True`.
This will become an error in seaborn v0.14.0; please update your code.

  sns.kdeplot(x='petal_length',y='petal_width',data=setosa,shade=True)
```