

```

import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd
from sklearn.datasets import load_iris

# Load the Iris dataset
iris_data = load_iris()
iris_df = pd.DataFrame(data=iris_data.data, columns=iris_data.feature_names)
iris_df['species'] = iris_data.target
iris_df['species'] = iris_df['species'].map({0: 'setosa', 1: 'versicolor', 2: 'virginica'})

# Print statistical summary using describe()
print("Statistical Summary of the Iris Dataset:")
print(iris_df.describe())

# Create a pairplot for a visual summary
sns.pairplot(iris_df, hue='species', palette='viridis')

# Set the title for the pairplot
plt.suptitle('Pairplot of Iris Dataset', y=1.02)

# Show the plot
plt.show()

```

```

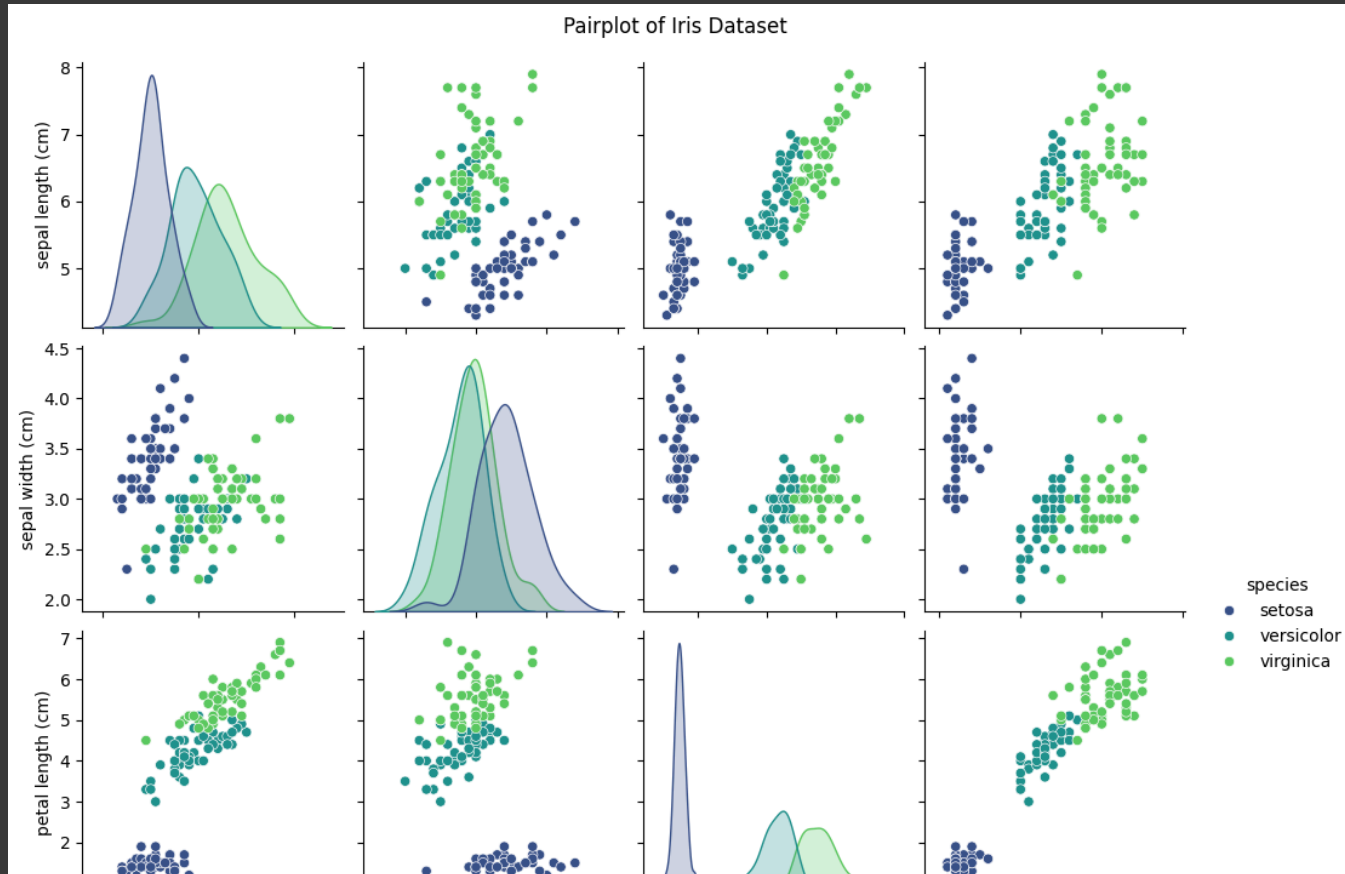
↗ Statistical Summary of the Iris Dataset:

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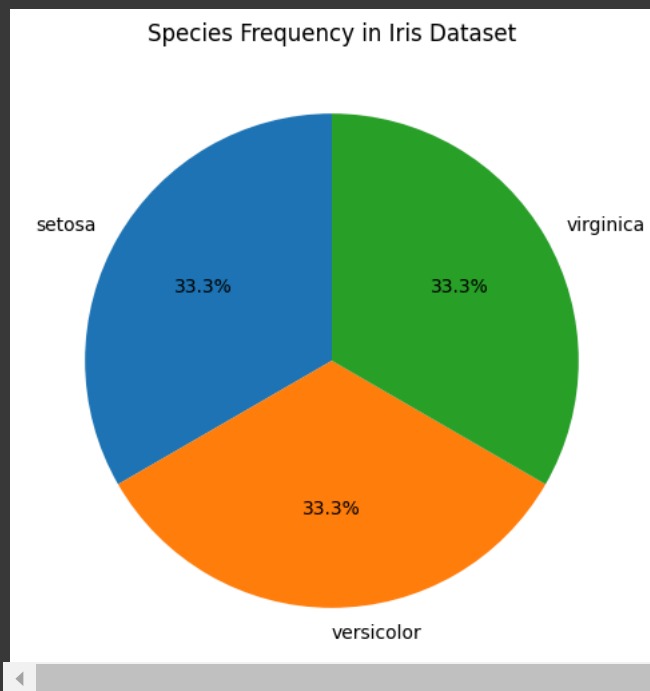
	sepal length (cm)	sepal width (cm)	petal length (cm) \
count	150.000000	150.000000	150.000000
mean	5.843333	3.057333	3.758000
std	0.828066	0.435866	1.765298
min	4.300000	2.000000	1.000000
25%	5.100000	2.800000	1.600000
50%	5.800000	3.000000	4.350000
75%	6.400000	3.300000	5.100000
max	7.900000	4.400000	6.900000

	petal width (cm)
count	150.000000
mean	1.199333
std	0.762238
min	0.100000
25%	0.300000
50%	1.300000
75%	1.800000
max	2.500000



```
import seaborn as sns
import matplotlib.pyplot as plt
#load the iris dataset
iris = sns.load_dataset('iris')
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')
#show the plot
plt.show()
```



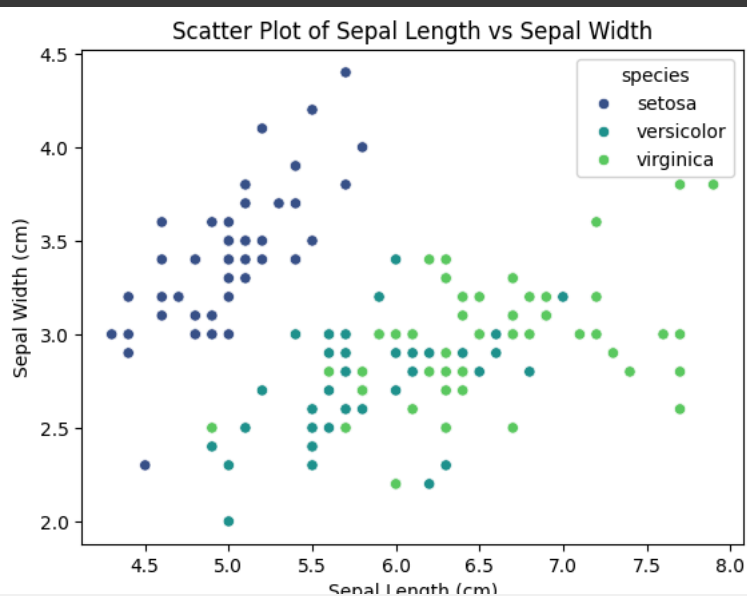
```
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd
from sklearn.datasets import load_iris

# Load the Iris dataset
iris_data = load_iris()
iris_df = pd.DataFrame(data=iris_data.data, columns=iris_data.feature_names)
iris_df['species'] = iris_data.target
iris_df['species'] = iris_df['species'].map({0: 'setosa', 1: 'versicolor', 2: 'virginica'})

# Create a scatter plot using Seaborn
sns.scatterplot(data=iris_df, x='sepal length (cm)', y='sepal width (cm)', hue='species', palette='viridis')

# Customize the plot with titles and labels
plt.title('Scatter Plot of Sepal Length vs Sepal Width')
plt.xlabel('Sepal Length (cm)')
plt.ylabel('Sepal Width (cm)')

# Show the plot
plt.show()
```



```
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd
from sklearn.datasets import load_iris

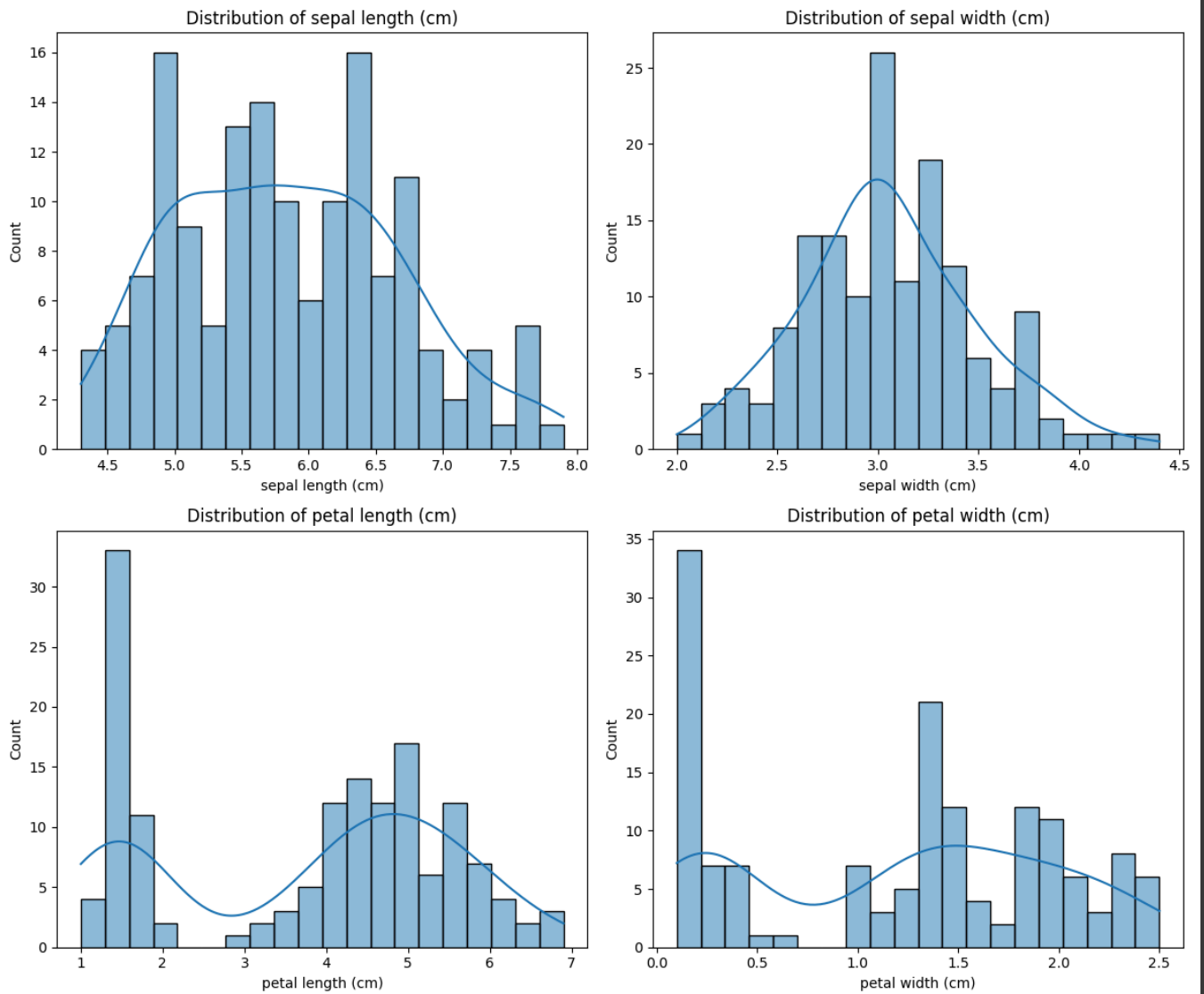
#load the iris dataset
iris = load_iris()
iris_df = pd.DataFrame(data=iris.data, columns=iris.feature_names)

plt.figure(figsize=(12, 10))

#plot histograms and kde platforms
for i, feature in enumerate(iris.feature_names):
    plt.subplot(2, 2, i+1)
    sns.histplot(iris_df[feature], kde=True, bins=20)
    plt.title(f'Distribution of {feature}')

#adjust layout
plt.tight_layout()

#show the plot
plt.show()
```

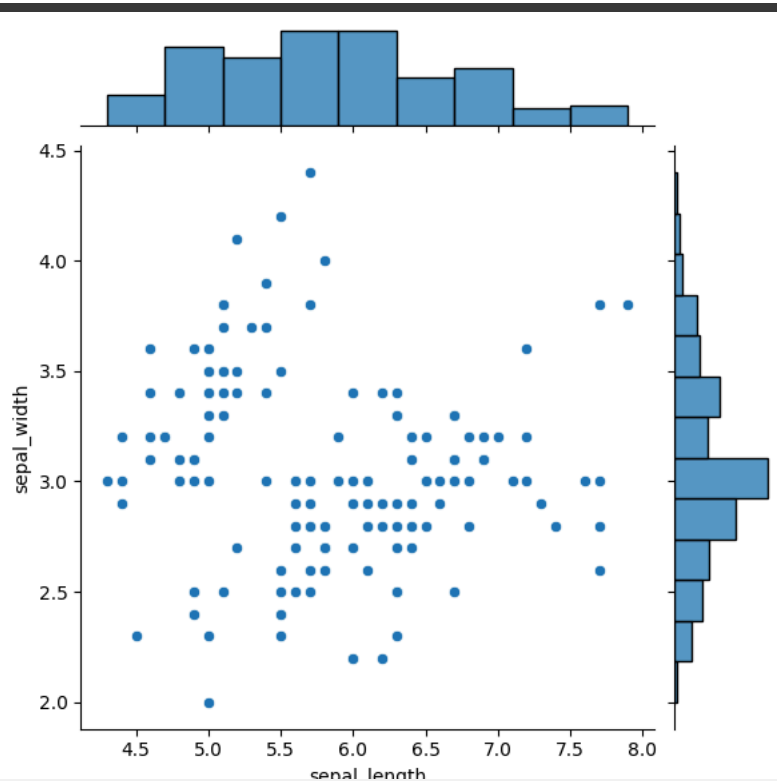


```
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd

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

# Create a joint plot
sns.jointplot(data=iris, x='sepal_length', y='sepal_width', kind='scatter')

# Show the plot
plt.show()
```



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

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

# Filter the dataset for the setosa species
setosa = iris[iris['species'] == 'setosa']

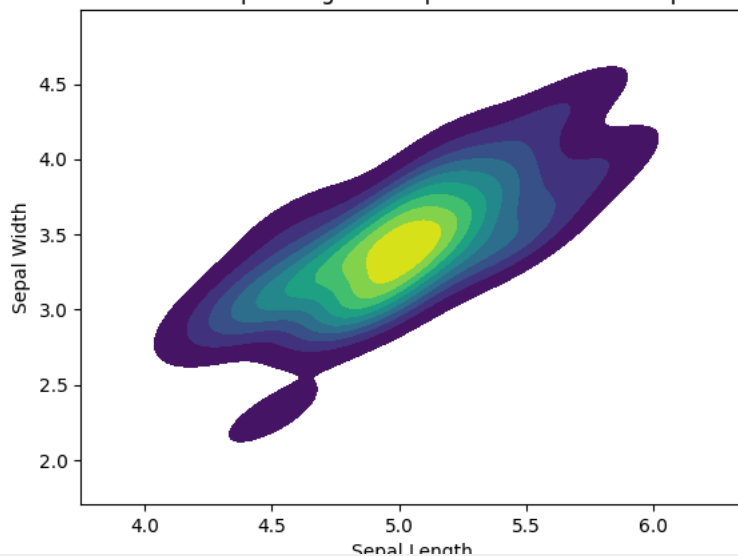
# Create the KDE plot
sns.kdeplot(data=setosa, x='sepal_length', y='sepal_width', fill=True, cmap='viridis')

# Set plot labels and title
plt.xlabel('Sepal Length')
plt.ylabel('Sepal Width')
plt.title('KDE Plot of Sepal Length vs Sepal Width for Setosa Species')

# Show the plot
plt.show()
```



KDE Plot of Sepal Length vs Sepal Width for Setosa Species



```
import seaborn as sns
import pandas as pd
```

```
import matplotlib.pyplot as plt
from sklearn.datasets import load_iris
```