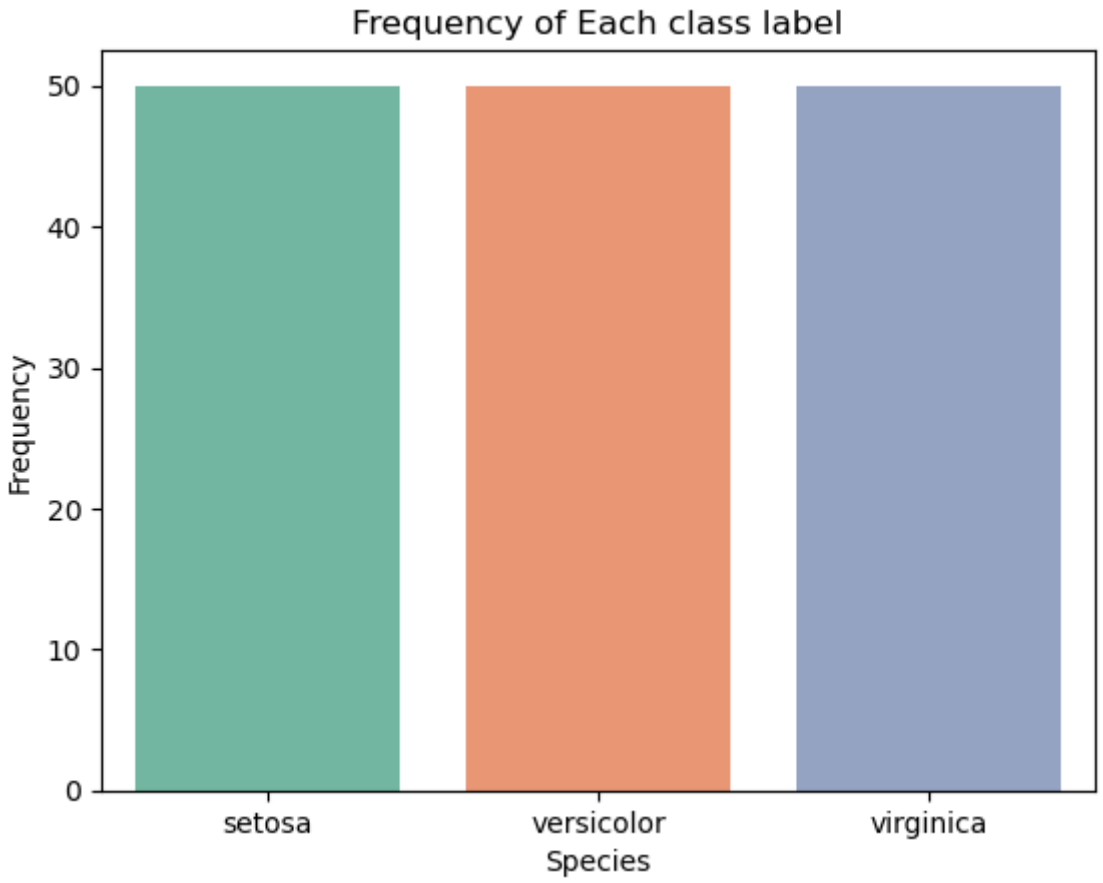
Q5. Taking Iris data, plot the following with proper legend and axis labels: (Download IRIS data from: https://archive.ics.uci.edu/ml/datasets/iris or import it from sklearn.datasets)

In [10]:
```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
iris = sns.load_dataset('iris')
```

a. Plot bar chart to show the frequency of each class label in the data.

In [11]:
```
sns.countplot(x='species',data=iris,palette='Set2')
plt.xlabel('Species')
plt.ylabel('Frequency')
plt.title('Frequency of Each class label')
```

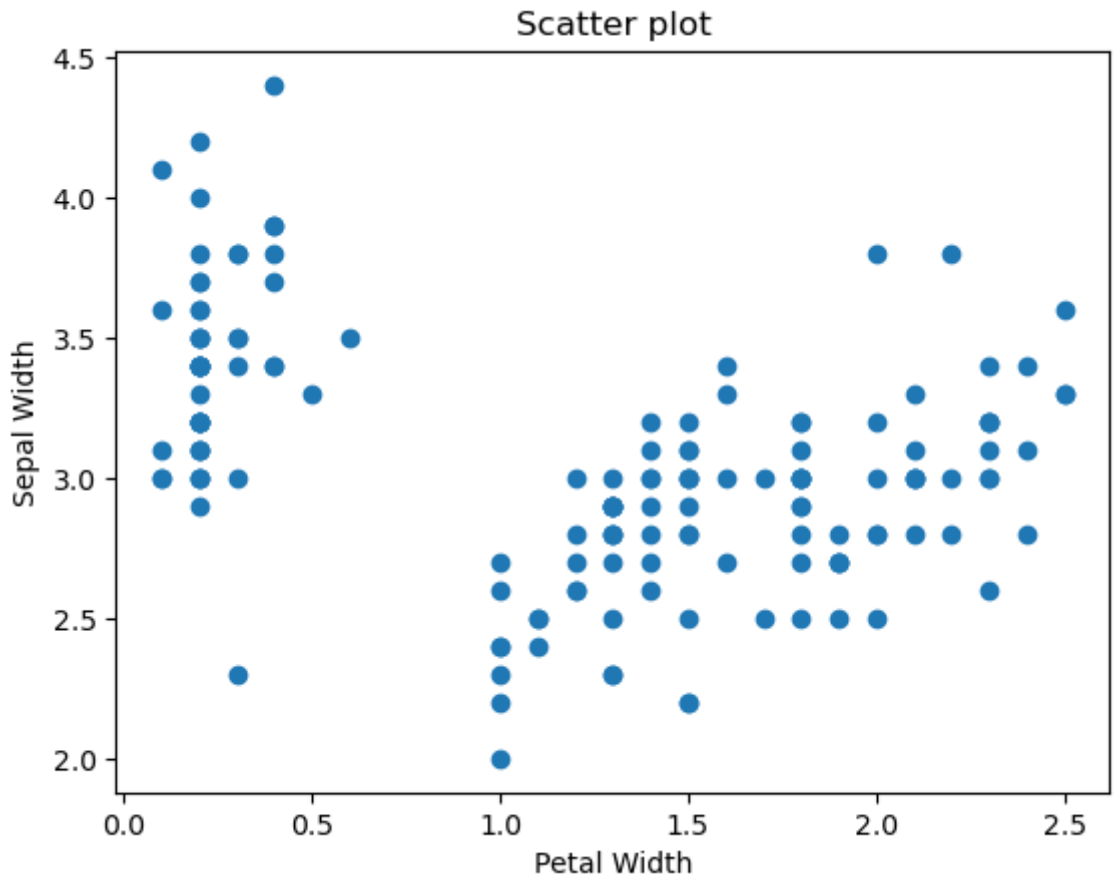
Out[11]:
```
Text(0.5, 1.0, 'Frequency of Each class label')
```



b. Draw a scatter plot for Petal width vs sepal width.

In [12]:
```
plt.scatter(x='petal_width',y='sepal_width',data=iris)
plt.xlabel('Petal Width')
plt.ylabel('Sepal Width')
plt.title("Scatter plot")
```

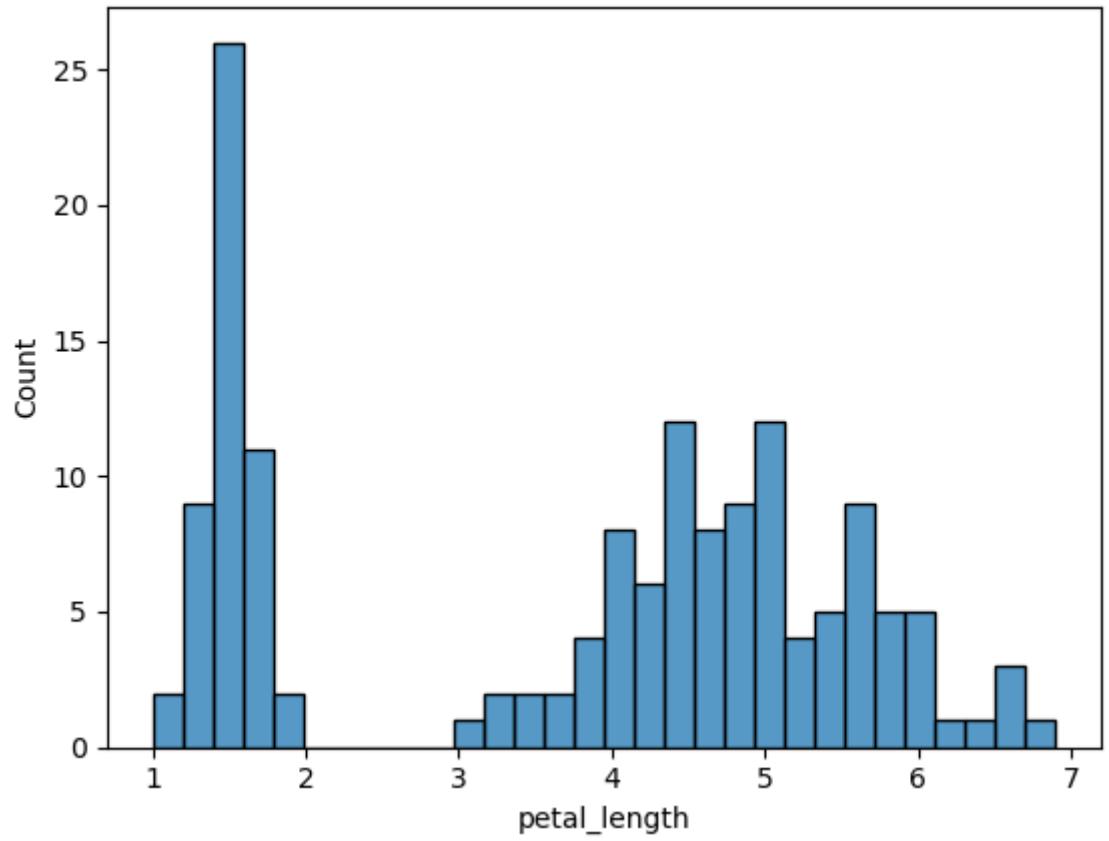
Out[12]:
```
Text(0.5, 1.0, 'Scatter plot')
```



c. Plot density distribution for feature petal length

```
In [13]: sns.histplot(iris['petal_length'],kde=False,bins=30)
```

```
Out[13]: <AxesSubplot:xlabel='petal_length', ylabel='Count'>
```



d. Use a pair plot to show pairwise bivariate distribution in the Iris Dataset.

In [15]:
```
sns.pairplot(iris,hue='species',palette='coolwarm')
```

Out[15]:
```
<seaborn.axisgrid.PairGrid at 0x225675c35b0>
```