importing seaborn and matplot libraries

In [2]:
```
import seaborn as sns
import matplotlib.pyplot as plt
```

Loading iris dataset

In [5]:
```
iris=sns.load_dataset('iris')
```

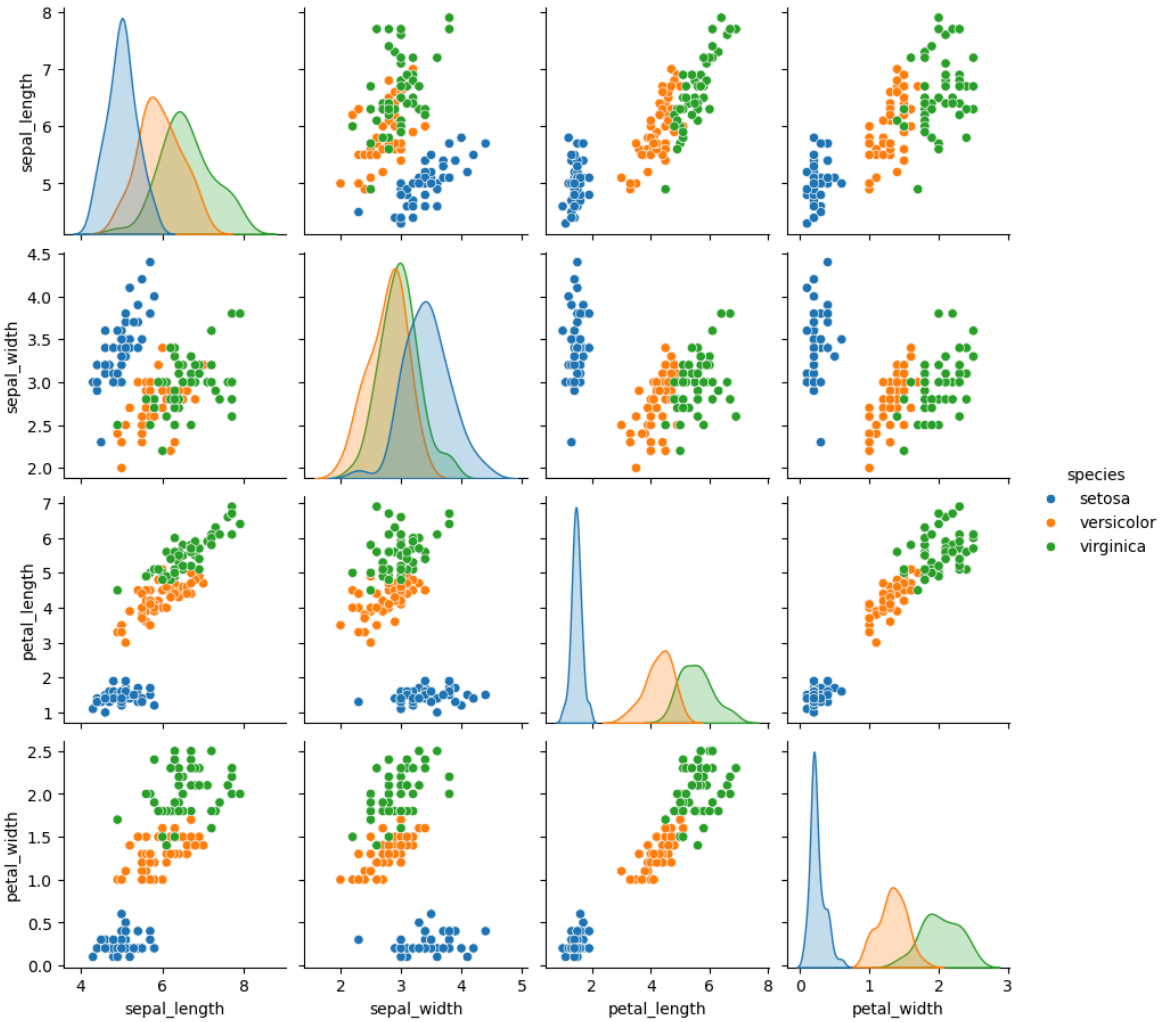
In [7]:
```
print(iris)
```

```
     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
..            ...          ...           ...          ...        ...
145           6.7          3.0           5.2          2.3  virginica
146           6.3          2.5           5.0          1.9  virginica
147           6.5          3.0           5.2          2.0  virginica
148           6.2          3.4           5.4          2.3  virginica
149           5.9          3.0           5.1          1.8  virginica

[150 rows x 5 columns]
```

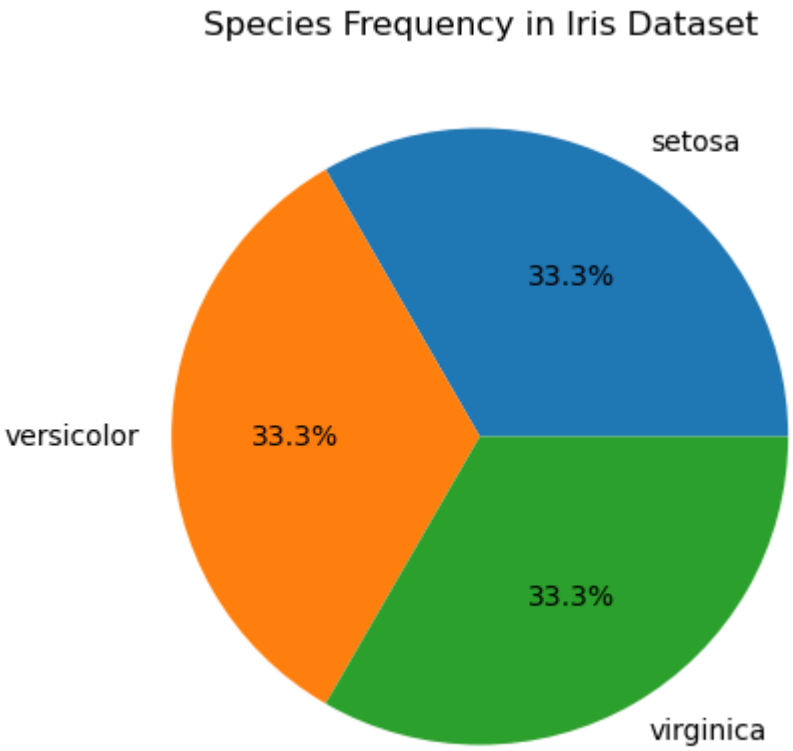
General Statistics Plot

In [56]:
```
sns.pairplot(iris,hue='species',height=2.3)
plt.show()
```



Pie Plot for Species Frequency:

In [13]:
```
spe_counts = iris['species'].value_counts()
plt.figure(figsize=(5,5))
plt.pie(spe_counts, labels=spe_counts.index, autopct='%1.1f%%', startangle=0)
plt.title('Species Frequency in Iris Dataset')
plt.show()
```



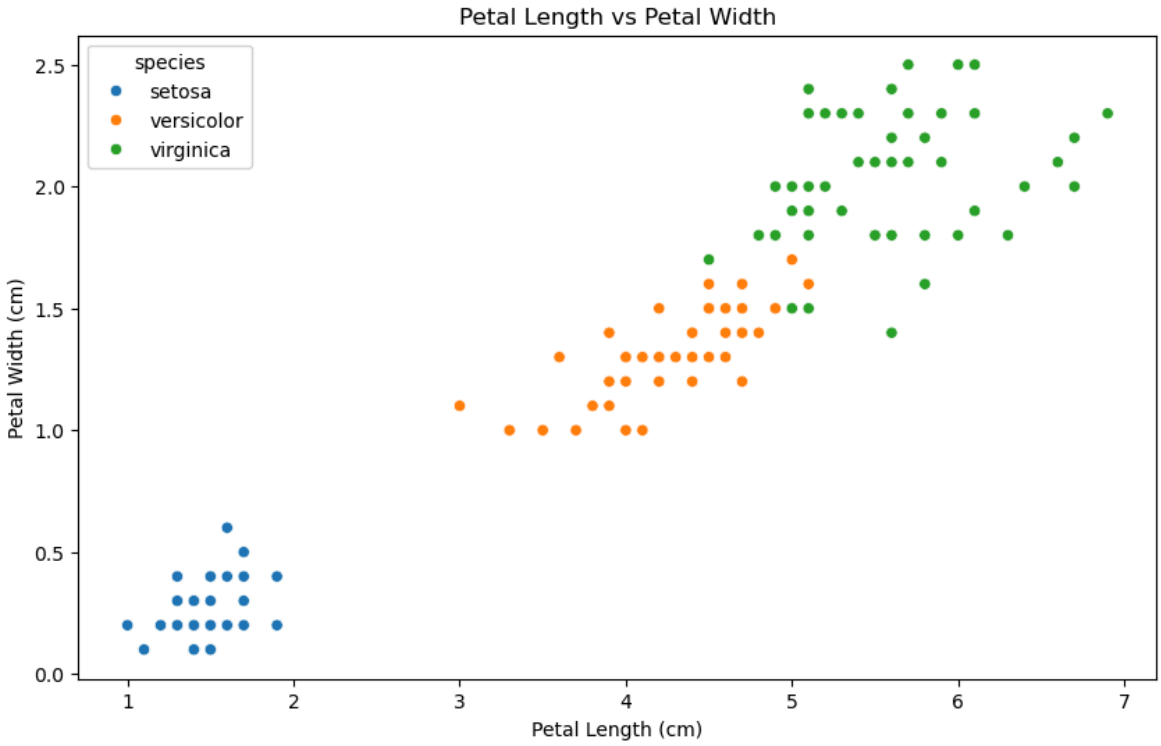
Relationship Between Sepal Length and Width:

sepal length vs sepal width

In [18]:
```
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()
```

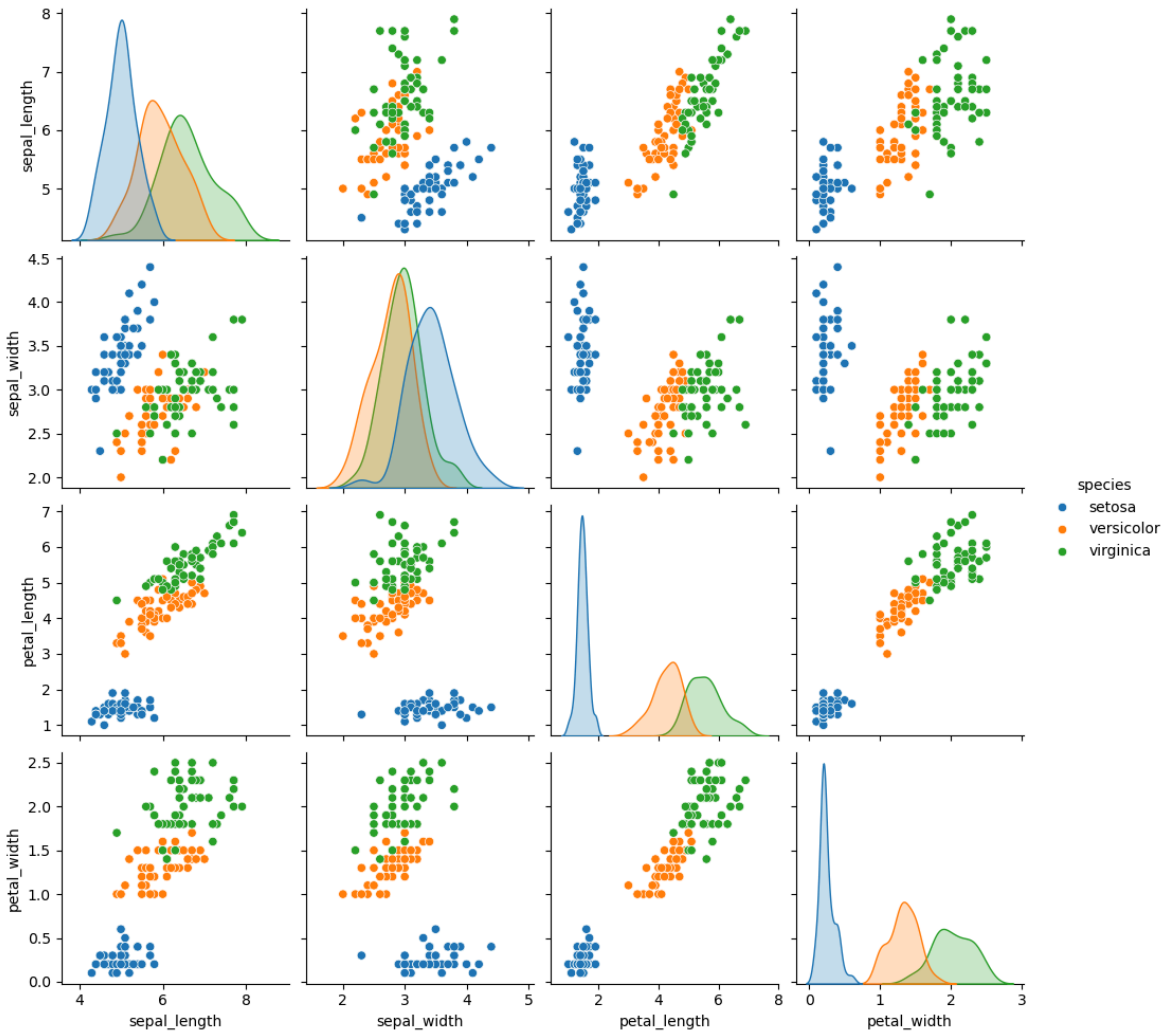
petal length vs petal width

In [20]:
```
plt.figure(figsize=(10, 6))
sns.scatterplot(x='petal_length', y='petal_width', hue='species', data=iris)
plt.title('Petal Length vs Petal Width')
plt.xlabel('Petal Length (cm)')
plt.ylabel('Petal Width (cm)')
plt.show()
```



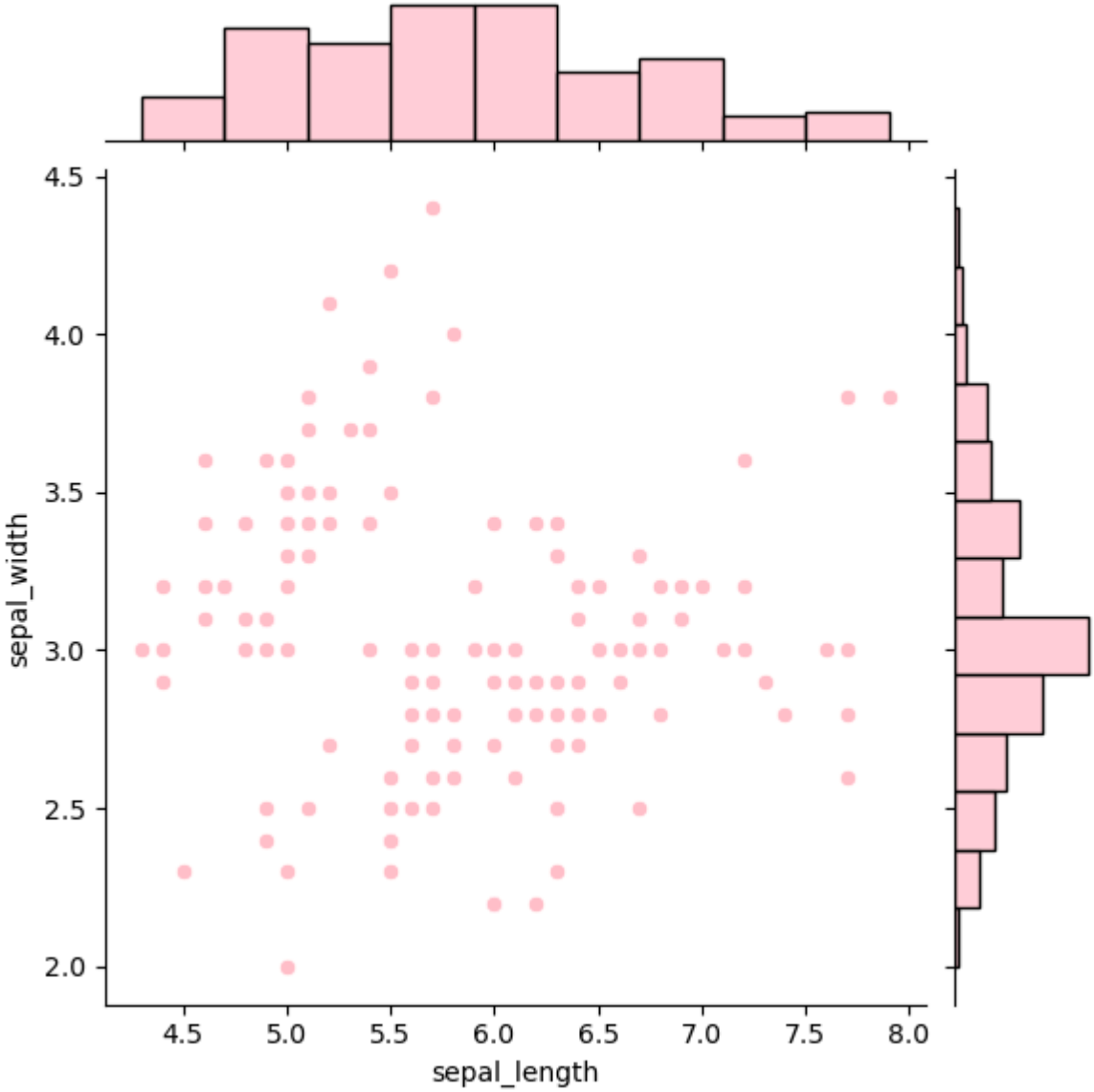
Distribution of Sepal and Petal Features:

In [24]:
```
sns.pairplot(iris, hue='species', height=2.5)
plt.show()
```



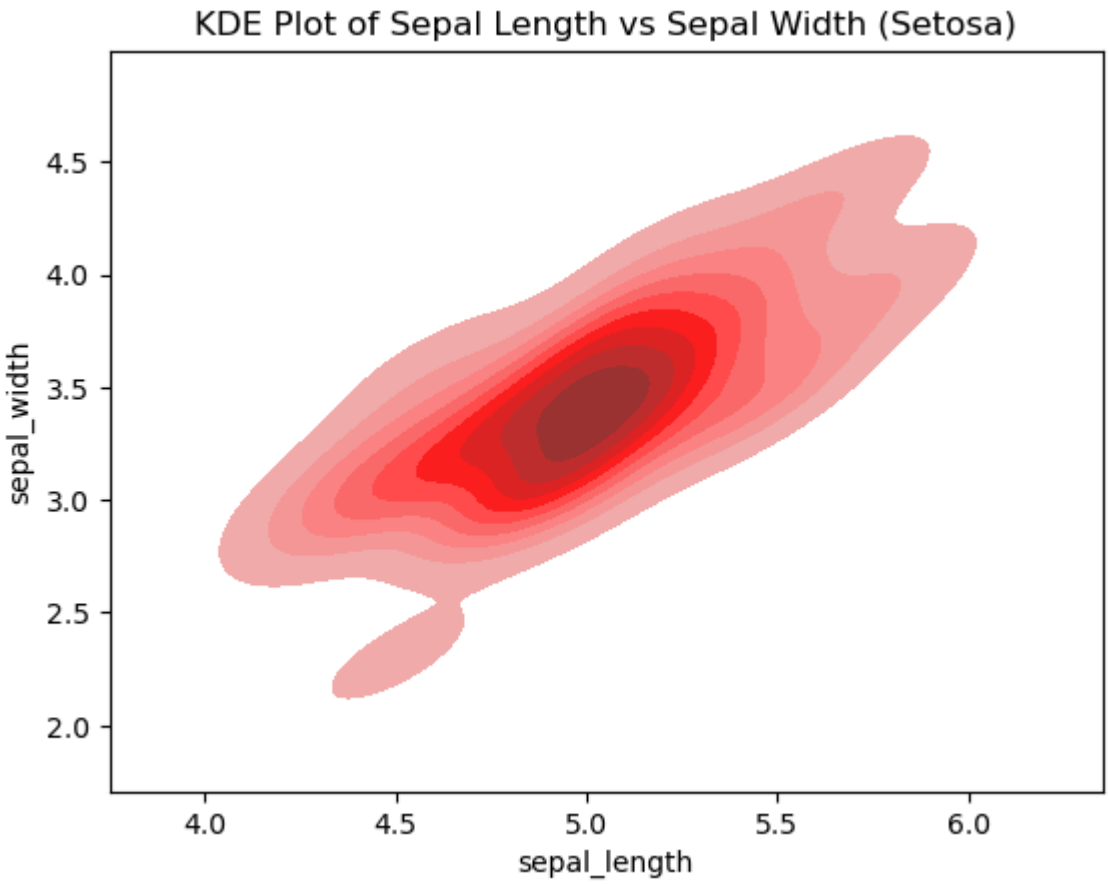
Jointplot of Sepal Length vs Sepal Width:

In [72]:
```
sns.jointplot(x='sepal_length', y='sepal_width', data=iris, kind='scatter',color
plt.show()
```



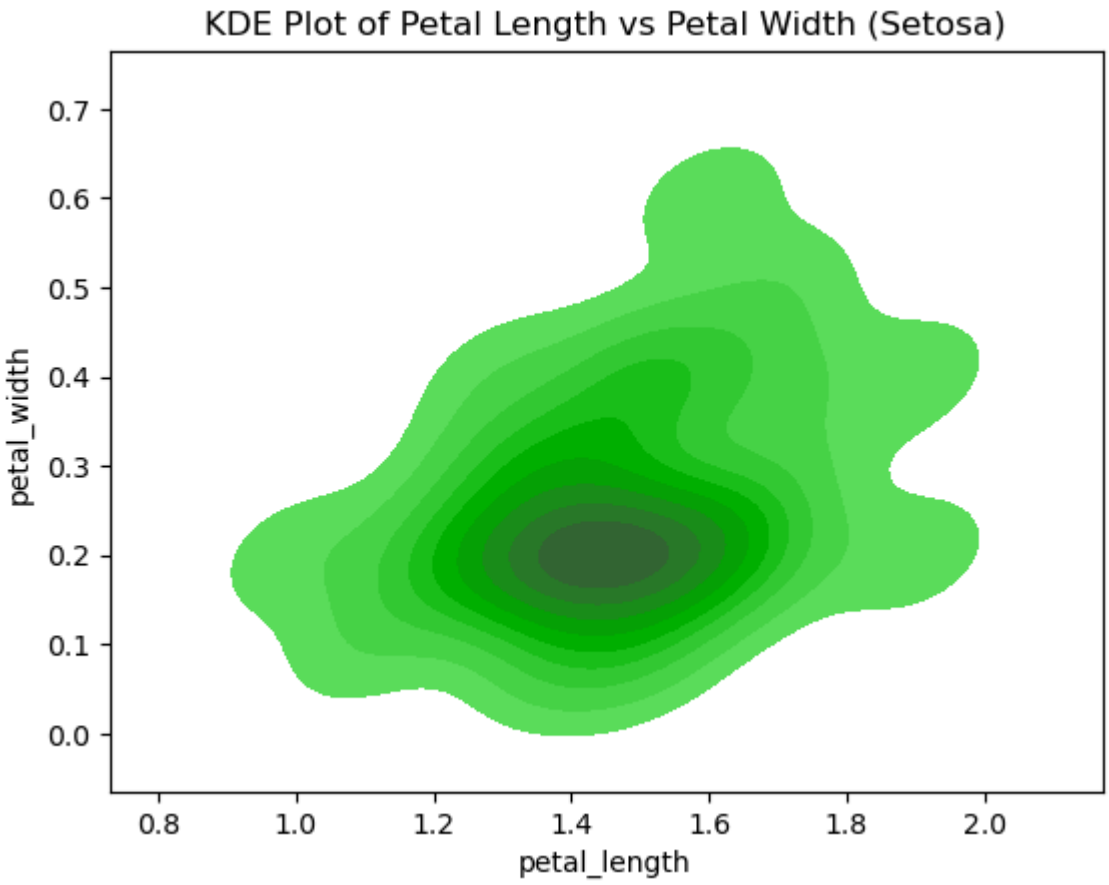
KDE Plot for Setosa Species (Sepal Length vs Sepal Width):

In [68]:
```
setosa = iris[iris['species'] == 'setosa']
sns.kdeplot(x='sepal_length', y='sepal_width', data=setosa, fill=True,color='red
plt.title('KDE Plot of Sepal Length vs Sepal Width (Setosa)')
plt.show()
```



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

In [70]:
```
sns.kdeplot(x='petal_length', y='petal_width', data=setosa, fill=True,color='gre
plt.title('KDE Plot of Petal Length vs Petal Width (Setosa)')
plt.show()
```


KDE Plot of Petal Length vs Petal Width (Setosa)
petal_width
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
1.0
1.2
1.4
1.6
1.8
2.0
petal_length