A22126551001

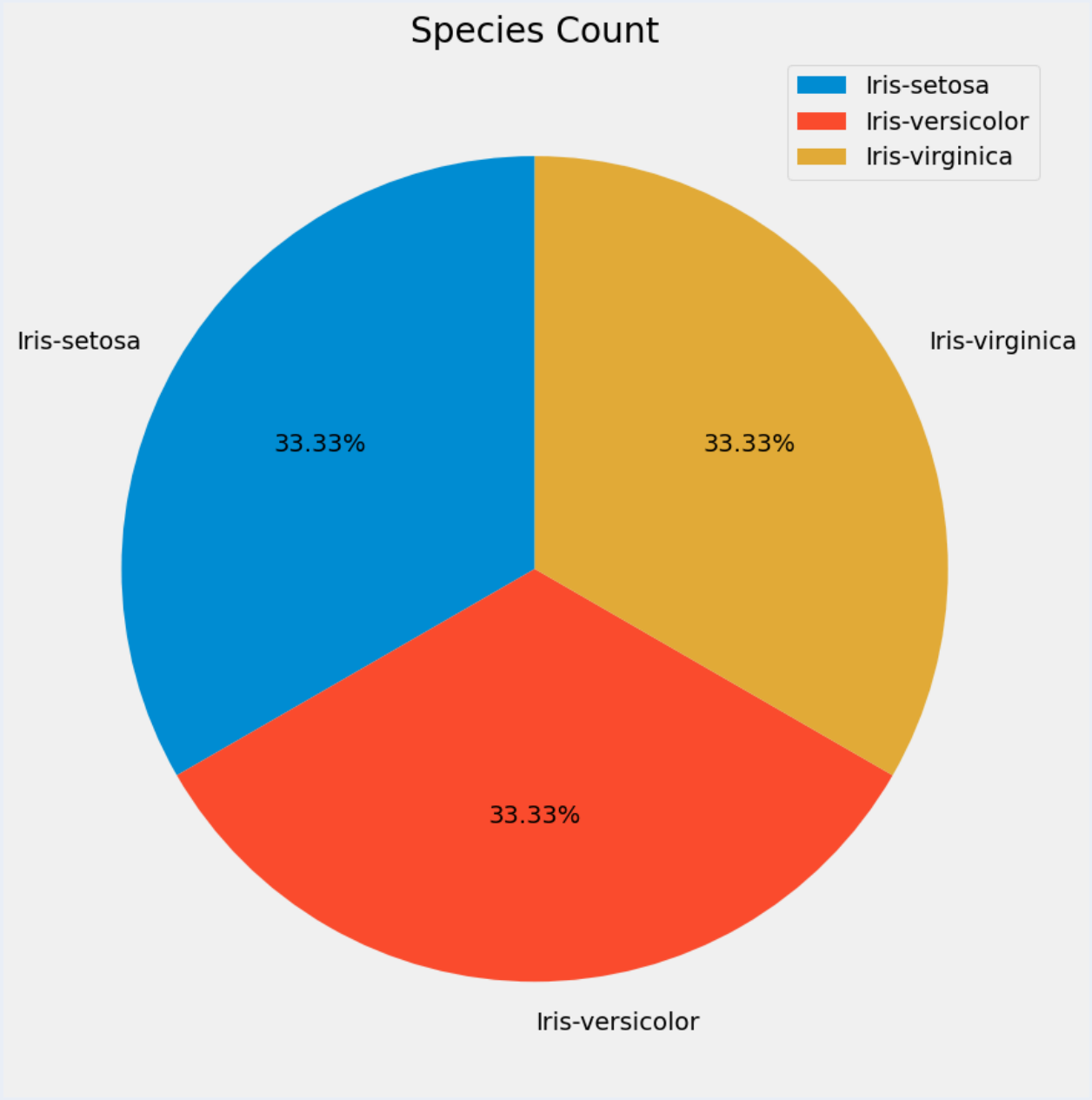
A. Samuel Anand Sagar

```
[79] import numpy as np
     import pandas as pd
     import seaborn as sns
     import matplotlib.pyplot as plt
     df =pd.read_csv('/content/Iris.csv')
     import warnings
     warnings.filterwarnings("ignore")
```

```
plt.style.use("fivethirtyeight")
plt.figure(figsize=(10,8))
sns.pairplot(df,hue="Species",height=2.5,)
plt.show()
plt.tight_layout()
```


```
species=df["Species"].value_counts()
label=df["Species"].unique()
```

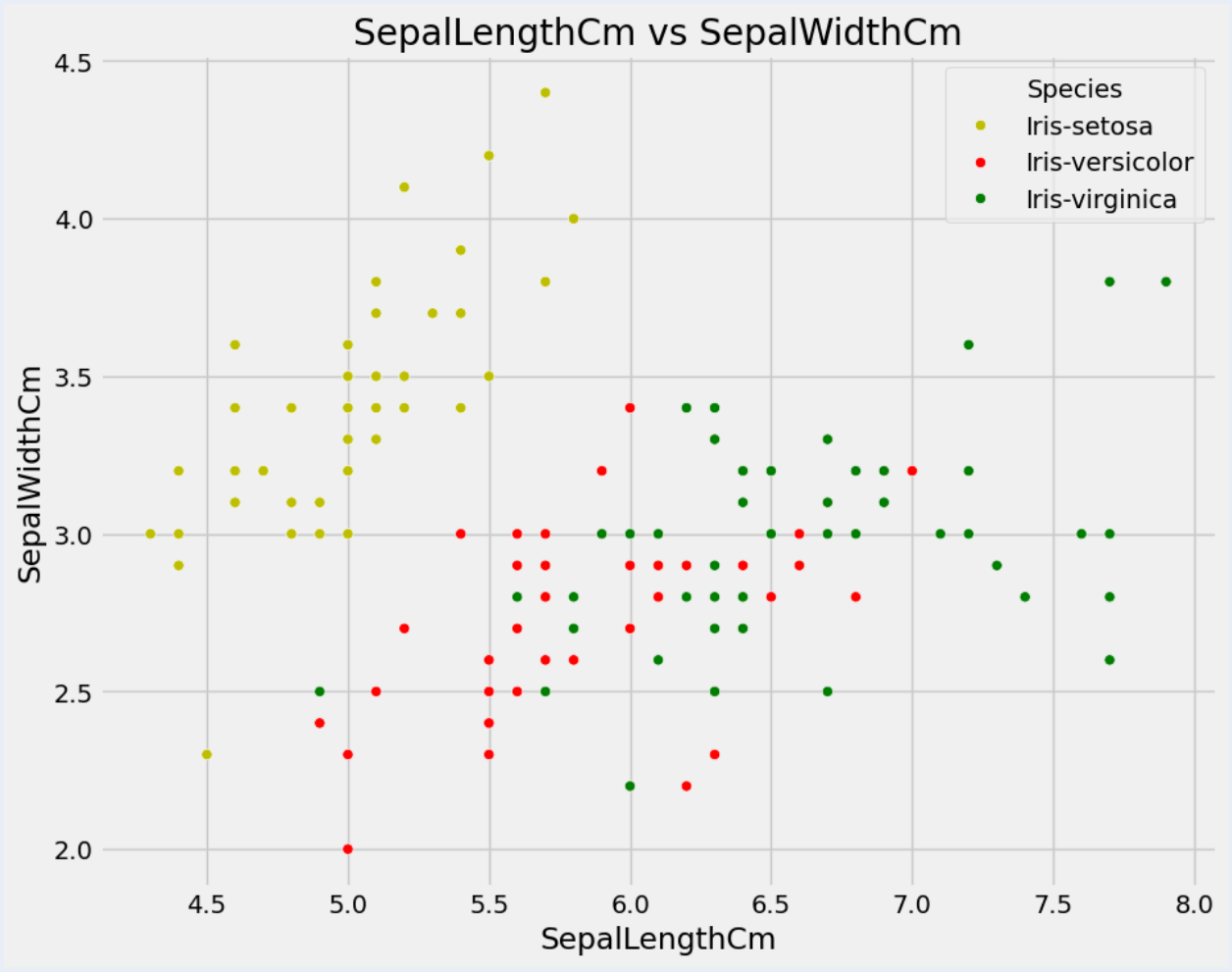
```
plt.style.use("fivethirtyeight")
plt.figure(figsize=(9,9))
plt.pie(species,labels=label,autopct='%1.2f%%',startangle=90)
plt.title("Species Count")
plt.legend()
plt.tight_layout()
```



1s

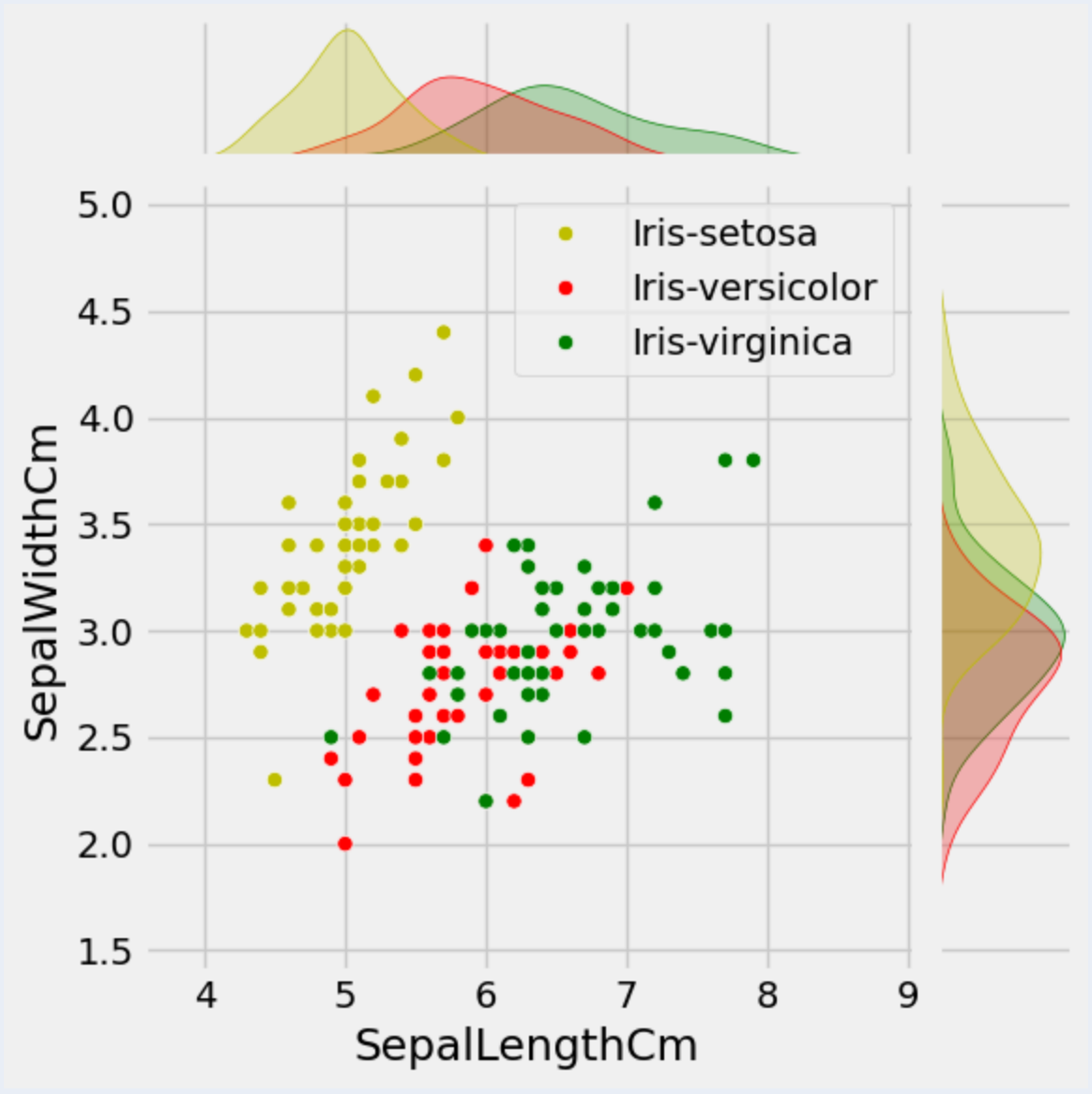
```
plt.style.use("fivethirtyeight")
plt.figure(figsize=(10,8))
sns.scatterplot(
  x='SepalLengthCm',
  y='SepalWidthCm',
  hue='Species',
  data=df,
  palette={'Iris-setosa': 'y', 'Iris-versicolor': 'r', 'Iris-virginica': 'g'}
 )
plt.title('SepalLengthCm vs SepalWidthCm')
```

```
Text(0.5, 1.0, 'SepalLengthCm vs SepalWidthCm')
```

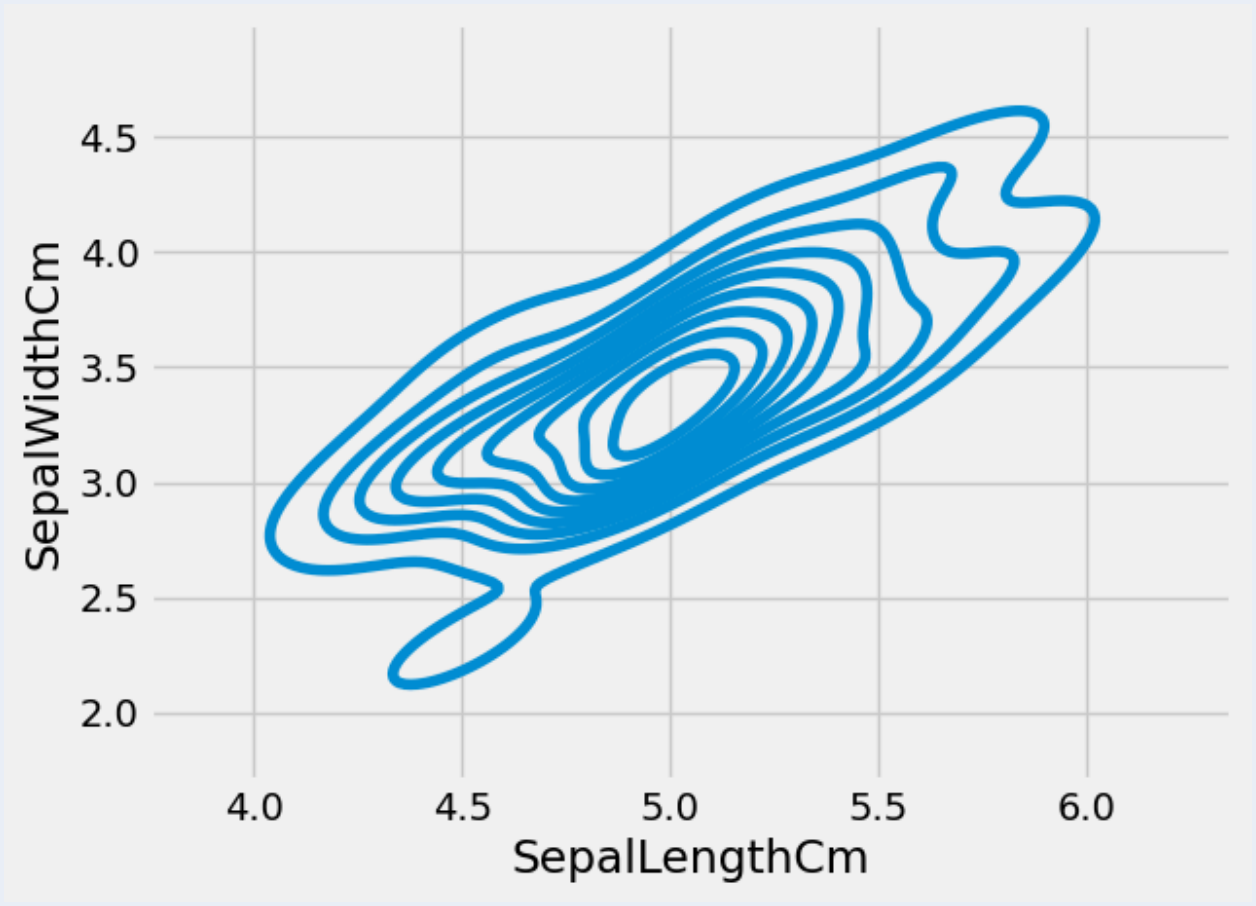



```
[92] plt.style.use("fivethirtyeight")
     sns.jointplot(x='SepalLengthCm',y='SepalWidthCm',data=df,kind='scatter',hue='Species',
     palette={'Iris-setosa': 'y', 'Iris-versicolor': 'r', 'Iris-virginica': 'g'})
     plt.legend()
```

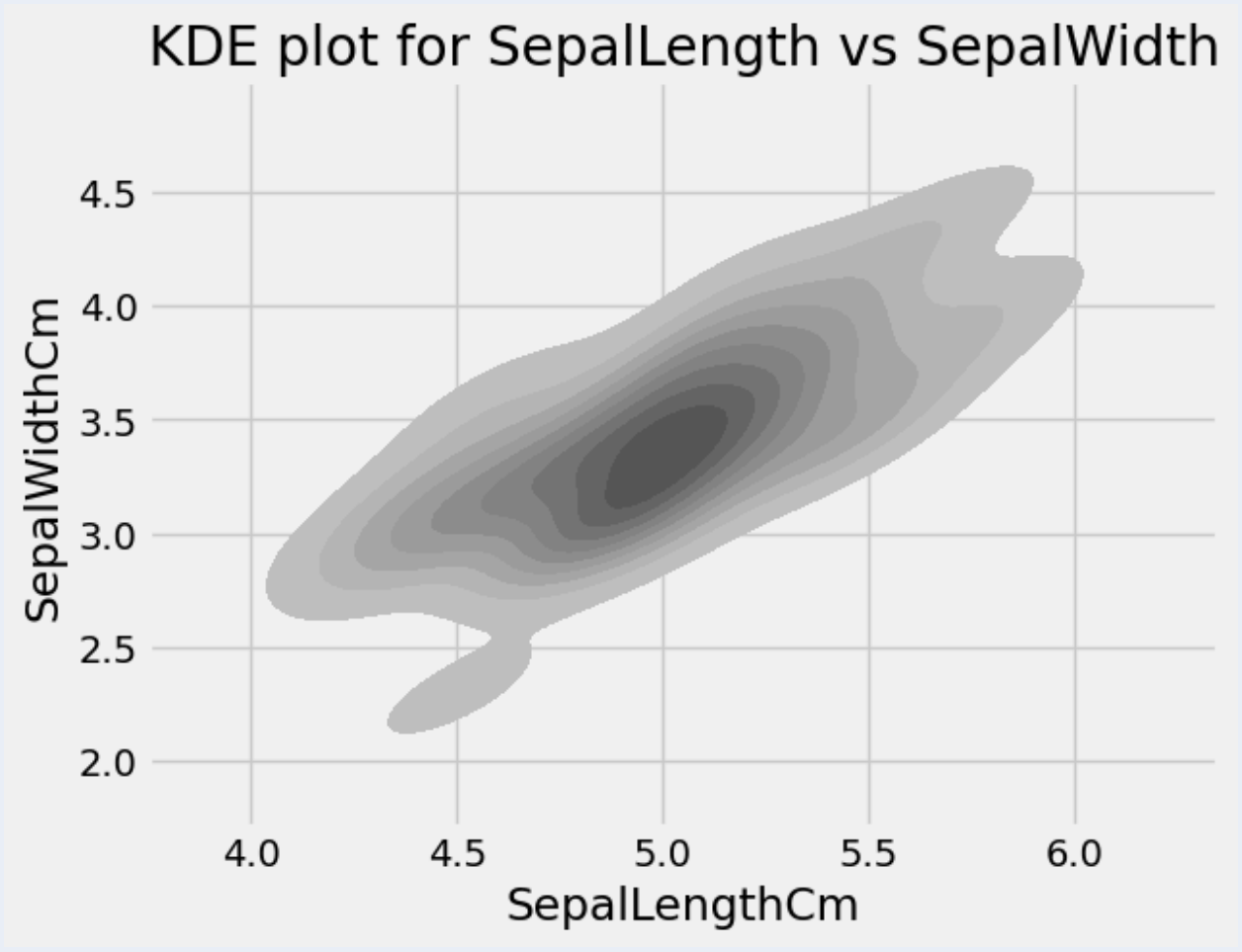
```
<matplotlib.legend.Legend at 0x7e21041aff70>
```




```
setosa=df[df['Species']=="Iris-setosa"]
sns.kdeplot(x='SepalLengthCm',y='SepalWidthCm',data=setosa,)
color = sns.color_palette()[0]
```




```
sns.kdeplot(x='SepalLengthCm',y='SepalWidthCm',data=setosa,fill=True,color='black')
plt.title("KDE plot for SepalLength vs SepalWidth")
plt.show()
```


KDE plot for SepalLength vs SepalWidth
SepalWidthCm
4.5
4.0
3.5
3.0
2.5
2.0
4.0
4.5
5.0
5.5
6.0
SepalLengthCm