

```
import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
%matplotlib inline

data=pd.read_csv('/content/Iris_Dataset.csv')
data
```

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	variety
	0	1	5.1	3.5	1.4	0.2 Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setk,osa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa=
4	5	5.0	3.6	1.4	0.2	Iris-setosa
...						
145	146	6.7	3.0	5.2	2.3	Iris-virginica
146	147	6.3	2.5	5.0	1.9	Iris-viirginica
147	148	6.5	3.0	5.2	2.0	Iris-virginica
148	149	6.2	3.4	5.4	2.3	Iris-virginica
149	150	5.9	3.0	5.1	1.8	Iris-virginica
150 rows × 6 columns						

```
data.info()
i
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 6 columns):
# Column Non-Null Count Dtype
-----
0 Id 150 non-null int64
1 SepalLengthCm 150 non-null float64
2 SepalWidthCm 150 non-null float64
3 PetalLengthCm 150 non-null float64
4 PetalWidthCm 150 non-null float64
5 variety 150 non-null object
dtypes: float64(4), int64(1), object(1)
memory usage: 7.2+ KB
```

1

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
count	150	150	150	150	150
mean	75.5	5.843333	3.054000	3.758667	1.198667
std	43.445368	0.828066	0.433594	1.764420	0.763161
min	1.000000	4.300000	2.000000	1.000000	0.100000
25%	38.250000	5.100000	2.800000	1.600000	0.300000
50%	75.500000	5.800000	3.000000	4.350000	1.300000
75%	112.750000	6.400000	3.300000	5.100000	1.800000
max	150	000000	7 900000	4 400000	6 900000

```
data.value_counts('variety')

count
Varie ty
Iris-setosa 50
Iris-versicolor 50
Iris-virginica 50
```

```
sns.countplot(x='variety',data=data,)
plt.show()

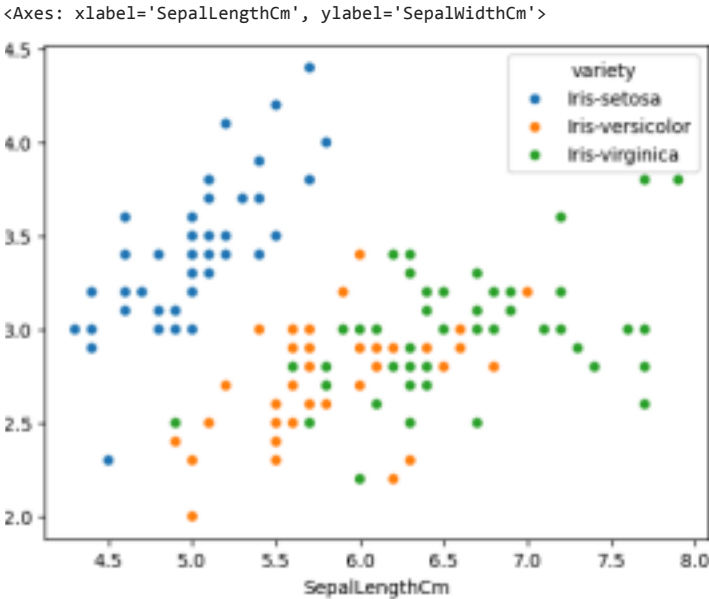
dummies=pd.get_dummies(data.variety)

FinalDataset=pd.concat([pd.get_dummies(data.variety),data.iloc[:,[0,1,2,3]]],axis=1)
```

```
FinalDataset.head()

Iris-setosa Iris-versicolor Iris-virginica Id SepalLengthCm SepalWidthCm PetalLengthCm 0 True False False 1
5.1 3.5 1.4 1 True False False 2 4.9 3.0 1.4 2 True False False 3 4.7 3.2 1.3 3 True False False 4 4.6 3.1 1.5 4 True False False 5 5.0
3 6 1 4
```

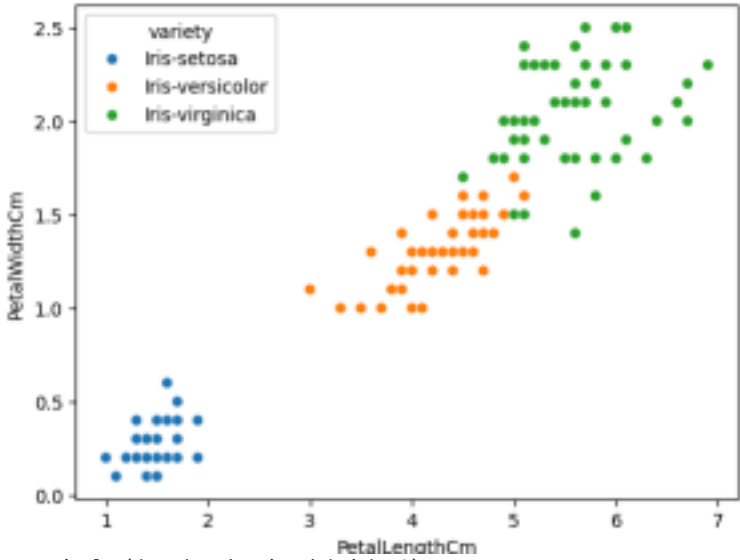
```
sns.scatterplot(x='SepalLengthCm',y='SepalWidthCm',hue='variety',data=data)
```



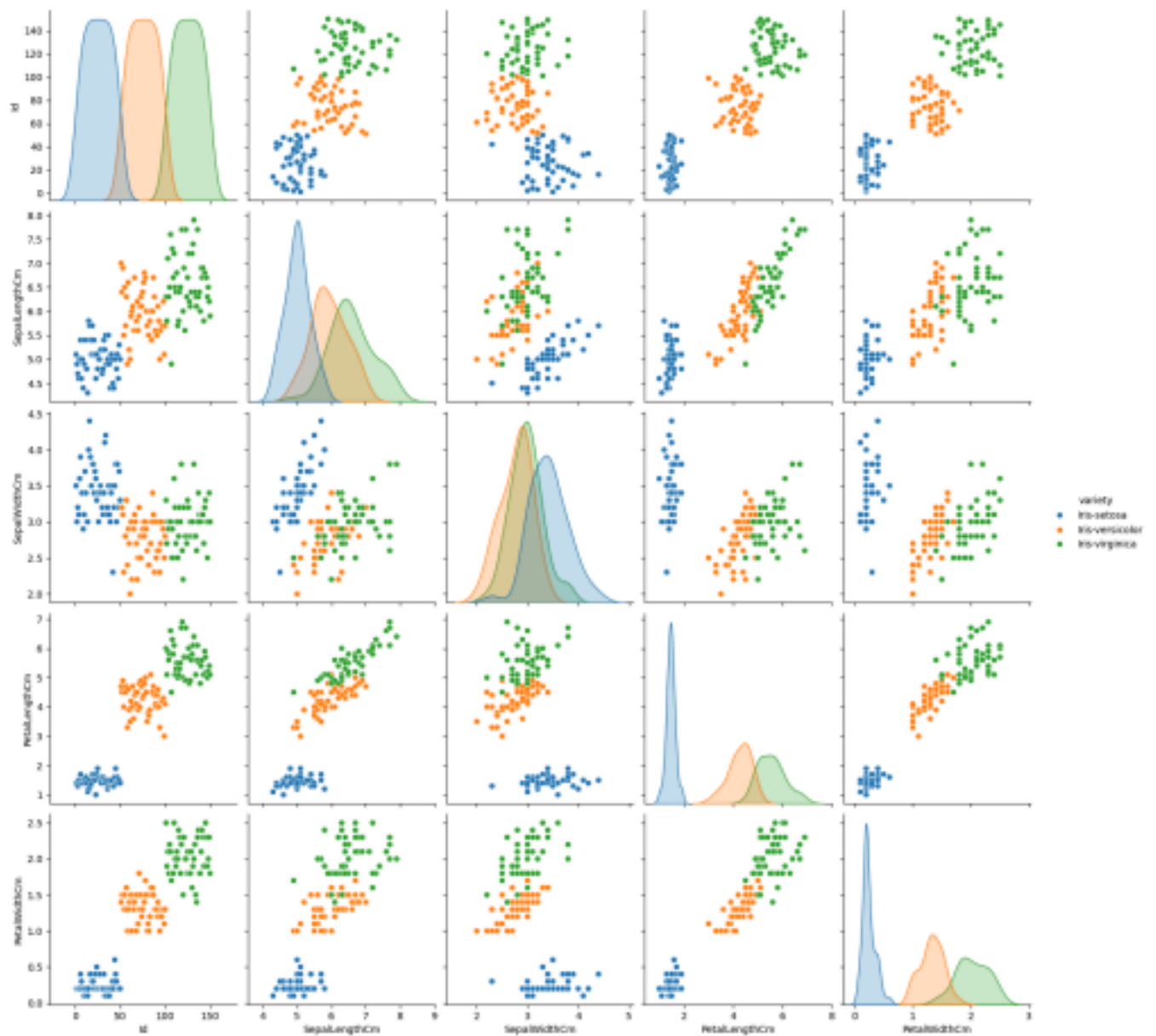
```
sns.scatterplot(x='PetalLengthCm',y='PetalWidthCm',hue='variety',data=data,)
```

<https://colab.research.google.com/drive/1Tqx5lOXjHro7-CLF16NYNKyRMTEo1INN#printMode=true> 2/5
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<Axes: xlabel='PetalLengthCm', ylabel='PetalWidthCm'>

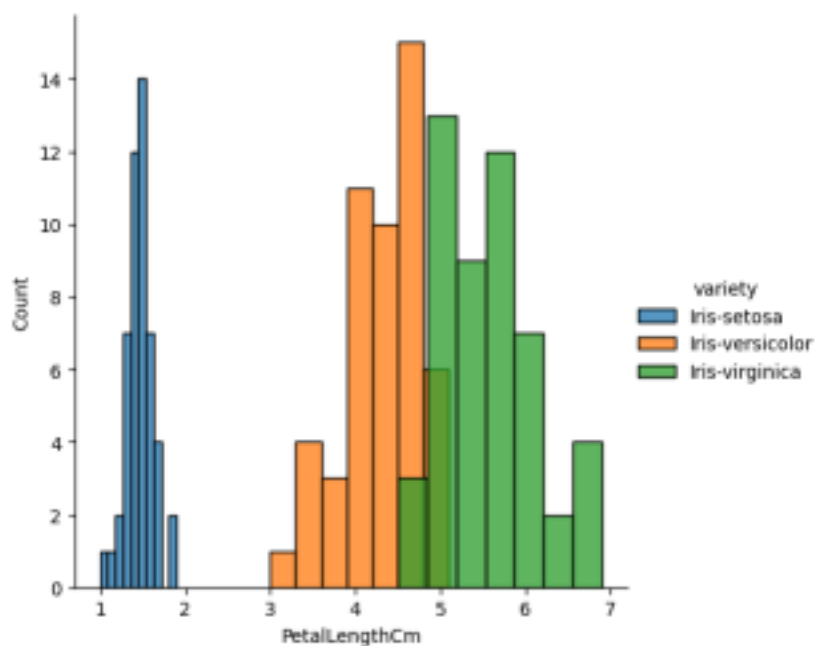


```
sns.pairplot(data,hue='variety',height=3);
```

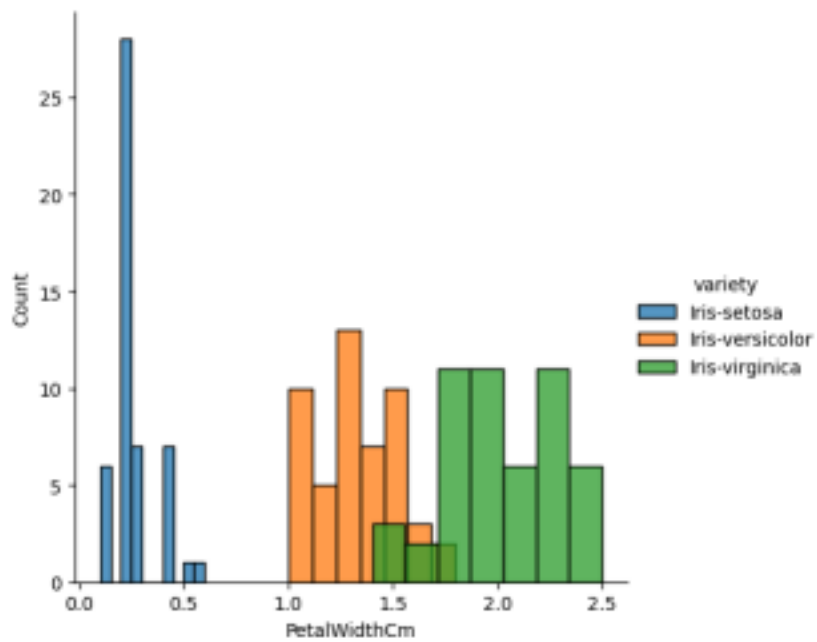


<https://colab.research.google.com/drive/1Tqx5lOXjHro7-CLF16NYNKyRMTEo1INN#printMode=true> 3/5
10/14/24, 12:23 PM irispetalsepal.ipynb - Colab plt.show()

```
sns.FacetGrid(data,hue='variety',height=5).map(sns.histplot,'Petal.LengthCm').add_legend();
plt.show();
```

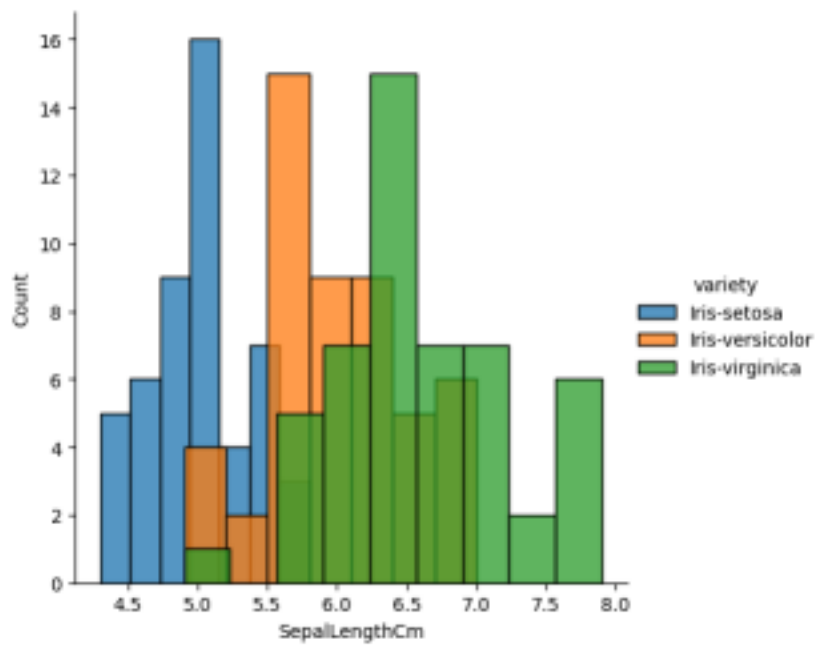


```
sns.FacetGrid(data,hue='variety',height=5).map(sns.histplot,'Petal.WidthCm').add_legend();
plt.show();
```



```
sns.FacetGrid(data,hue='variety',height=5).map(sns.histplot,'SepalLengthCm').add_legend();
plt.show();
```

<https://colab.research.google.com/drive/1Tqx5lOXjHro7-CLF16NYNKyRMTEo1lNN#printMode=true> 4/5
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```
sns.FacetGrid(data,hue='variety',height=5).map(sns.histplot,'SepalWidthCm').add_legend();
plt.show();
```

