In [5]:
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as mlt
```

In [8]:
```
df = pd.read_csv(r"C:\Users\asmit\Downloads\IRIS.csv")
```

In [10]:
```
df.head()
```

Out[10]:

	sepal_length	sepal_width	petal_length	petal_width	species
0	5.1	3.5	1.4	0.2	Iris-setosa
1	4.9	3.0	1.4	0.2	Iris-setosa
2	4.7	3.2	1.3	0.2	Iris-setosa
3	4.6	3.1	1.5	0.2	Iris-setosa
4	5.0	3.6	1.4	0.2	Iris-setosa

In [12]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 5 columns):
 #   Column        Non-Null Count  Dtype  
---  ------        --------------  -----  
 0   sepal_length  150 non-null    float64
 1   sepal_width   150 non-null    float64
 2   petal_length  150 non-null    float64
 3   petal_width   150 non-null    float64
 4   species       150 non-null    object 
dtypes: float64(4), object(1)
memory usage: 6.0+ KB
```

In [13]:
```
df.describe()
```

Out[13]:

	sepal_length	sepal_width	petal_length	petal_width
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.054000	3.758667	1.198667
std	0.828066	0.433594	1.764420	0.763161
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.300000
50%	5.800000	3.000000	4.350000	1.300000
75%	6.400000	3.300000	5.100000	1.800000
max	7.900000	4.400000	6.900000	2.500000

In [14]:
```
df.isnull().sum()
```

Out[14]:
```
sepal_length    0
sepal_width     0
petal_length    0
petal_width     0
species         0
dtype: int64
```

In [15]:
```
- df['species'].value_counts()
```

Out[15]:
```
species
Iris-setosa       -50
Iris-versicolor   -50
Iris-virginica    -50
Name: count, dtype: int64
```

In [16]:
```
df.groupby('species').describe().T
```

Out[16]:

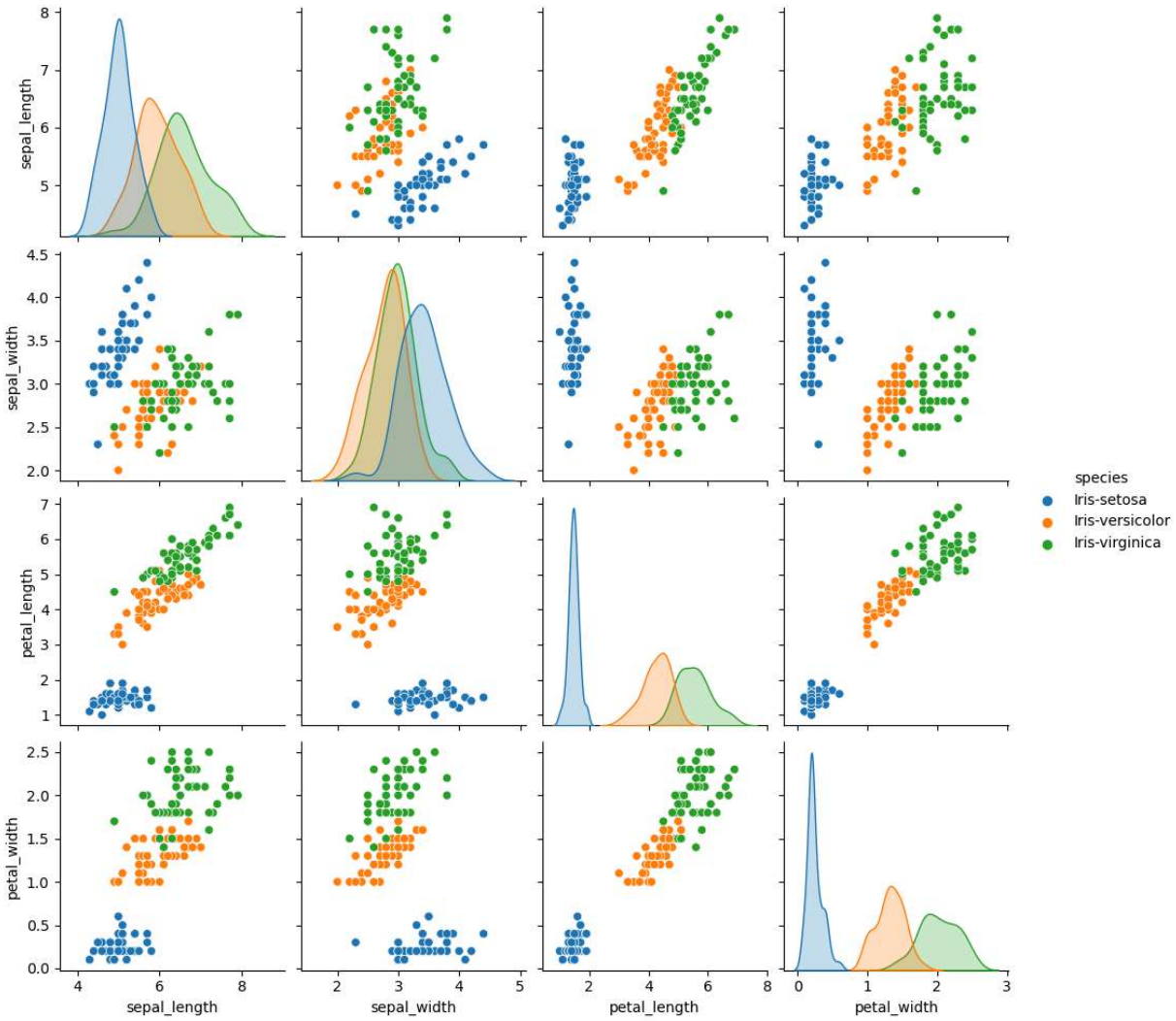
	species	Iris-setosa	Iris-versicolor	Iris-virginica
sepal_length	**count**	50.000000	50.000000	50.000000
	mean	5.006000	5.936000	6.588000
	std	0.352490	0.516171	0.635880
	min	4.300000	4.900000	4.900000
	25%	4.800000	5.600000	6.225000
	50%	5.000000	5.900000	6.500000
	75%	5.200000	6.300000	6.900000
	max	5.800000	7.000000	7.900000
sepal_width	**count**	50.000000	50.000000	50.000000
	mean	3.418000	2.770000	2.974000
	std	0.381024	0.313798	0.322497
	min	2.300000	2.000000	2.200000
	25%	3.125000	2.525000	2.800000
	50%	3.400000	2.800000	3.000000
	75%	3.675000	3.000000	3.175000
	max	4.400000	3.400000	3.800000
petal_length	**count**	50.000000	50.000000	50.000000
	mean	1.464000	4.260000	5.552000
	std	0.173511	0.469911	0.551895
	min	1.000000	3.000000	4.500000
	25%	1.400000	4.000000	5.100000
	50%	1.500000	4.350000	5.550000
	75%	1.575000	4.600000	5.875000
	max	1.900000	5.100000	6.900000
petal_width	**count**	50.000000	50.000000	50.000000
	mean	0.244000	1.326000	2.026000
	std	0.107210	0.197753	0.274650
	min	0.100000	1.000000	1.400000
	25%	0.200000	1.200000	1.800000
	50%	0.200000	1.300000	2.000000

species	Iris-setosa	Iris-versicolor	Iris-virginica
75%	0.300000	1.500000	2.300000
max	0.600000	1.800000	2.500000

In [19]:
```
sns.pairplot(df, hue='species')
```

```
C:\Users\asmit\anaconda3\Lib\site-packages\seaborn\_oldcore.py:1119: FutureWarning:
use_inf_as_na option is deprecated and will be removed in a future version. Convert
inf values to NaN before operating instead.
  with pd.option_context('mode.use_inf_as_na', True):
C:\Users\asmit\anaconda3\Lib\site-packages\seaborn\_oldcore.py:1119: FutureWarning:
use_inf_as_na option is deprecated and will be removed in a future version. Convert
inf values to NaN before operating instead.
  with pd.option_context('mode.use_inf_as_na', True):
C:\Users\asmit\anaconda3\Lib\site-packages\seaborn\_oldcore.py:1119: FutureWarning:
use_inf_as_na option is deprecated and will be removed in a future version. Convert
inf values to NaN before operating instead.
  with pd.option_context('mode.use_inf_as_na', True):
C:\Users\asmit\anaconda3\Lib\site-packages\seaborn\_oldcore.py:1119: FutureWarning:
use_inf_as_na option is deprecated and will be removed in a future version. Convert
inf values to NaN before operating instead.
  with pd.option_context('mode.use_inf_as_na', True):
```

Out[19]:
```
<seaborn.axisgrid.PairGrid at 0x255730b5650>
```


sepal_length
sepal_width
petal_length
petal_width
species
Iris-setosa
Iris-versicolor
Iris-virginica

In [ ]:

In [ ]:

In [ ]: