In [3]:
```
import pandas as pd
df=pd.read_csv('iris.csv')
```

In [4]:
```
df.head()
```

Out[4]:

	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

In [5]:
```
df.tail()
```

Out[5]:

	sepal_length	sepal_width	petal_length	petal_width	species
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

In [6]:
```
df.describe()
```

Out[6]:

	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 [7]:
```
df.info()
```

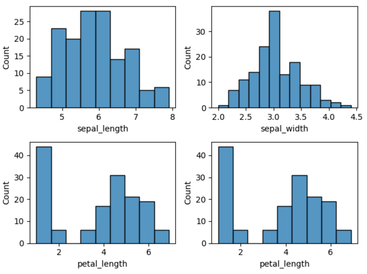
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 5 columns):
 #   Column        Non-Null Count  Dtype  
---  ------        --------------  -----  
 0   sepal_length  150 non-null    float64
 1   sepal_width   150 non-null    float64
 2   petal_length  150 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 [12]:
```
df.dtypes
```

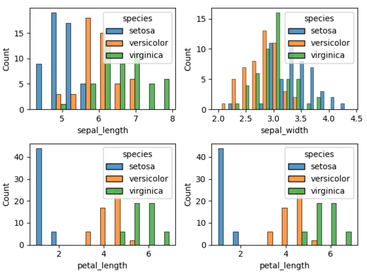
Out[12]:
```
sepal_length    float64
sepal_width     float64
petal_length    float64
petal_width     float64
species          object
dtype: object
```

for col in df.columns: if(col=="species"): print(col +" -> Nominal") else: print(col +" -> Numeric")

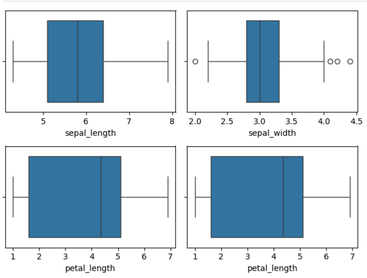
In [23]:
```
import matplotlib.pyplot as plt
import seaborn as sns
plt.subplot(2,2,1)
sns.histplot(data=df,x='sepal_length')
plt.subplot(2,2,2)
sns.histplot(data=df,x='sepal_width')
plt.subplot(2,2,3)
sns.histplot(data=df,x='petal_length')
plt.subplot(2,2,4)
sns.histplot(data=df,x='petal_length')
plt.tight_layout()
```



In [26]:
```
plt.subplot(2,2,1)
sns.histplot(data=df,x='sepal_length',hue='species',multiple="dodge")
plt.subplot(2,2,2)
sns.histplot(data=df,x='sepal_width',hue='species',multiple="dodge")
plt.subplot(2,2,3)
sns.histplot(data=df,x='petal_length',hue='species',multiple="dodge")
plt.subplot(2,2,4)
sns.histplot(data=df,x='petal_length',hue='species',multiple="dodge")
plt.tight_layout()
```

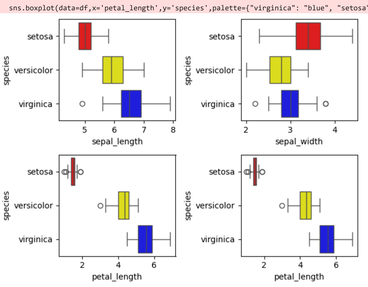


In [27]:
```
plt.subplot(2,2,1)
sns.boxplot(data=df,x='sepal_length')
plt.subplot(2,2,2)
sns.boxplot(data=df,x='sepal_width')
plt.subplot(2,2,3)
sns.boxplot(data=df,x='petal_length')
plt.subplot(2,2,4)
sns.boxplot(data=df,x='petal_length')
plt.tight_layout()
```



In [35]:
```
plt.subplot(2,2,1)
sns.boxplot(data=df,x='sepal_length',y='species',palette={"virginica": "blue", "setosa":"red","versicolor":"yellow"})
plt.subplot(2,2,2)
sns.boxplot(data=df,x='sepal_width',y='species',palette={"virginica": "blue", "setosa":"red","versicolor":"yellow"})
plt.subplot(2,2,3)
sns.boxplot(data=df,x='petal_length',y='species',palette={"virginica": "blue", "setosa":"red","versicolor":"yellow"})
plt.subplot(2,2,4)
sns.boxplot(data=df,x='petal_length',y='species',palette={"virginica": "blue", "setosa":"red","versicolor":"yellow"})
plt.tight_layout()
```

```
/tmp/ipykernel_5467/249563747.py:2: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `y` variable to `hue` and set `legend=False` for the same effect.

  sns.boxplot(data=df,x='sepal_length',y='species',palette={"virginica": "blue", "setosa":"red","versicolor":"yellow"})
/tmp/ipykernel_5467/249563747.py:4: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `y` variable to `hue` and set `legend=False` for the same effect.

  sns.boxplot(data=df,x='sepal_width',y='species',palette={"virginica": "blue", "setosa":"red","versicolor":"yellow"})
/tmp/ipykernel_5467/249563747.py:6: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `y` variable to `hue` and set `legend=False` for the same effect.

  sns.boxplot(data=df,x='petal_length',y='species',palette={"virginica": "blue", "setosa":"red","versicolor":"yellow"})
/tmp/ipykernel_5467/249563747.py:8: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `y` variable to `hue` and set `legend=False` for the same effect.

  sns.boxplot(data=df,x='petal_length',y='species',palette={"virginica": "blue", "setosa":"red","versicolor":"yellow"})
```



In [ ]: