UNIVARIATE , BIVARIATE , MULTIVARIATE ANALYSIS

In [1]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

In [2]:
```
df =pd.read_csv('https://raw.githubusercontent.com/uiuc-cse/data-fa14/gh-pages/data/iris.csv')
```

In [3]:
```
df.head()
```

Out[3]:

	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 [4]:
```
df.shape
```

Out[4]:
```
(150, 5)
```

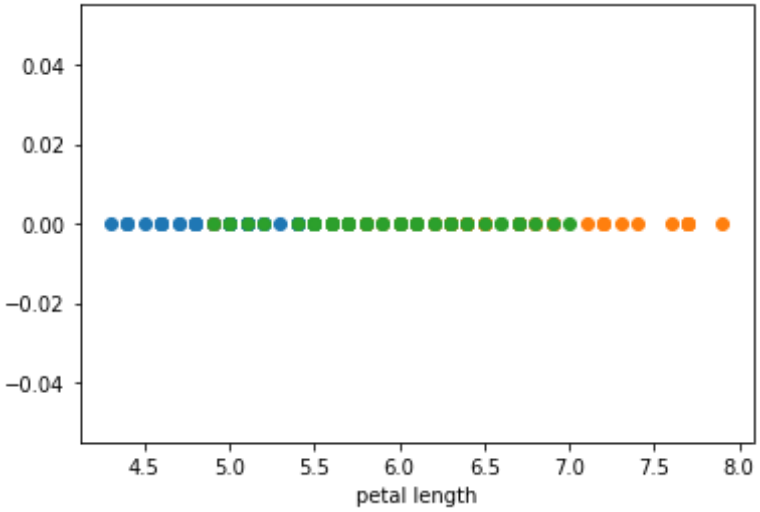
Univariate Analysis

In [9]:
```
df_setosa = df.loc[df['species']=='setosa']
```

In [10]:
```
df_virginica=df.loc[df['species']=='virginica']
```

```
df_versicolor=df.loc[df['species']=='versicolor']
```

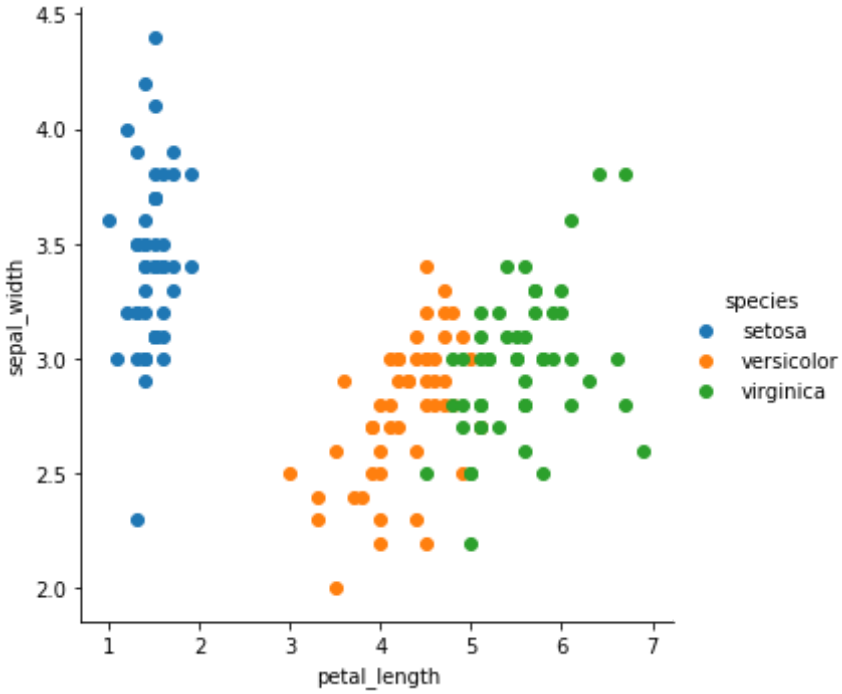
In [18]:
```
plt.plot(df_setosa['sepal_length'],np.zeros_like(df_setosa['sepal_length']),'o')
plt.plot(df_virginica['sepal_length'],np.zeros_like(df_virginica['sepal_length']),'o')
plt.plot(df_versicolor['sepal_length'],np.zeros_like(df_versicolor['sepal_length']),'o')
plt.xlabel('petal length')
plt.show()
```



Bivariate Analysis

In [22]:
```
sns.FacetGrid(df,hue="species",size=5).map(plt.scatter,"petal_length","sepal_width").add_legend();
plt.show()
```

```
C:\Users\Tejaswi\anaconda3\lib\site-packages\seaborn\axisgrid.py:243: UserWarning: The `size` parameter has been renamed to `height`; please update your code.
  warnings.warn(msg, UserWarning)
```

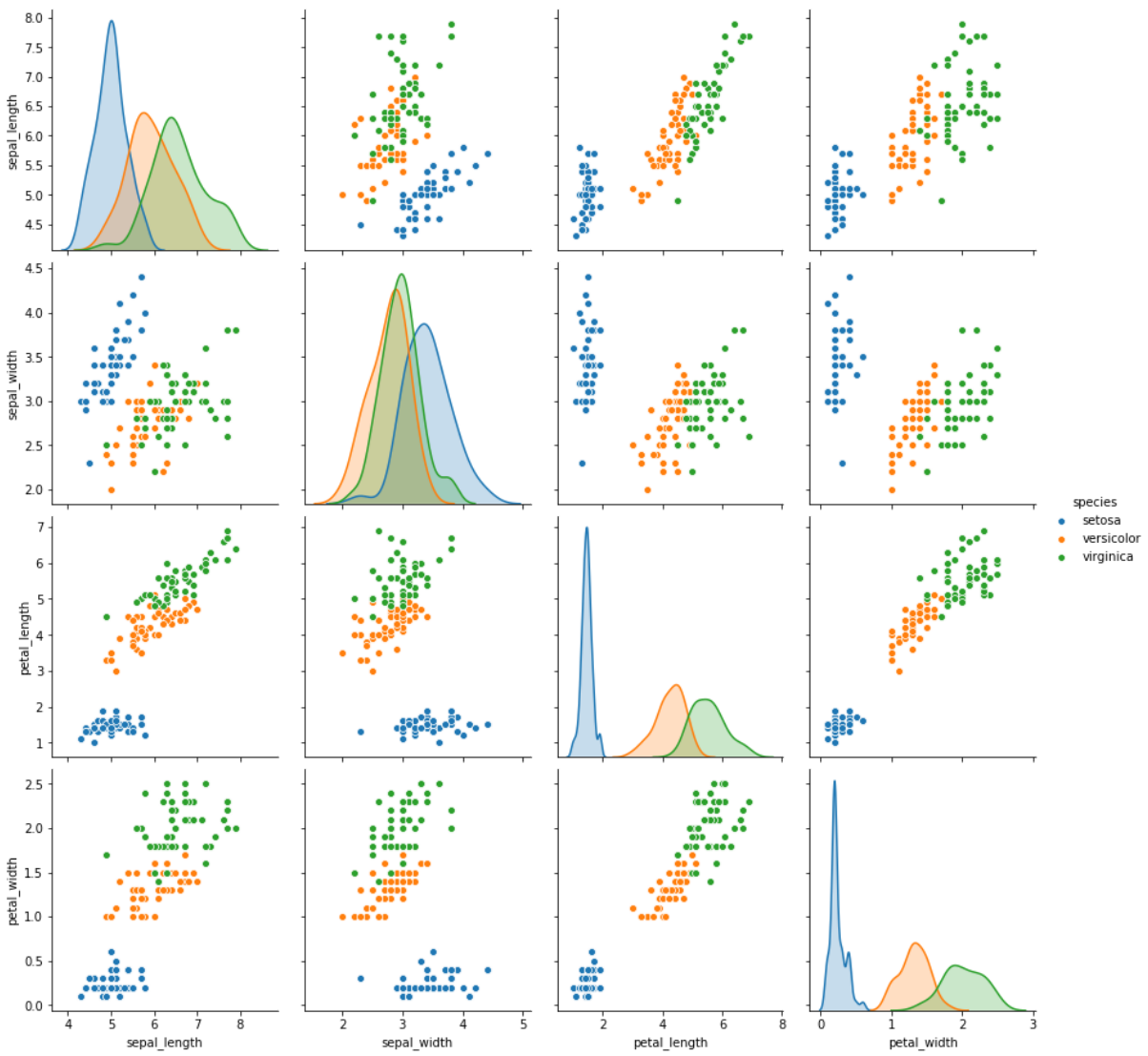


Multivariate Analysis

In [21]:
```
sns.pairplot(df,hue="species",size=3)
```

```
C:\Users\Tejaswi\anaconda3\lib\site-packages\seaborn\axisgrid.py:2079:
UserWarning: The `size` parameter has been renamed to `height`; please
update your code.
  warnings.warn(msg, UserWarning)
```

Out[21]:
```
<seaborn.axisgrid.PairGrid at 0x16716e1c308>
```



In [ ]:

In [ ]: