# Lab-4

# Seaborn Exercises

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## Import Numpy, Panda and Matplotlib library

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

In [16]:
```
```

## Import Dataset

In [2]:
```
iris = pd.read_csv('Downloads/iris.csv')
```

In [3]:
```
# print top 5 row of the dataset
```

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

Out[4]:

| | sepal.length | sepal.width | petal.length | petal.width | variety |
|---|---|---|---|---|---|
| **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 |

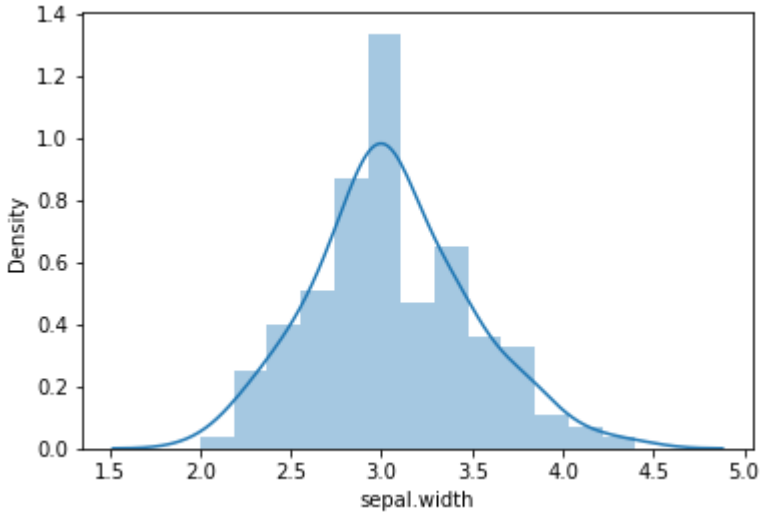
## Exercises 1

In [5]:
```
# Write the code to show the graph below.
import seaborn as sns
%matplotlib inline

sns.distplot(iris['sepal.width'])
```

```
C:\Users\Admin\anaconda3\lib\site-packages\seaborn\distributions.py:2619: Futur
eWarning: `distplot` is a deprecated function and will be removed in a future v
ersion. Please adapt your code to use either `displot` (a figure-level function
with similar flexibility) or `histplot` (an axes-level function for histogram
s).
  warnings.warn(msg, FutureWarning)
```

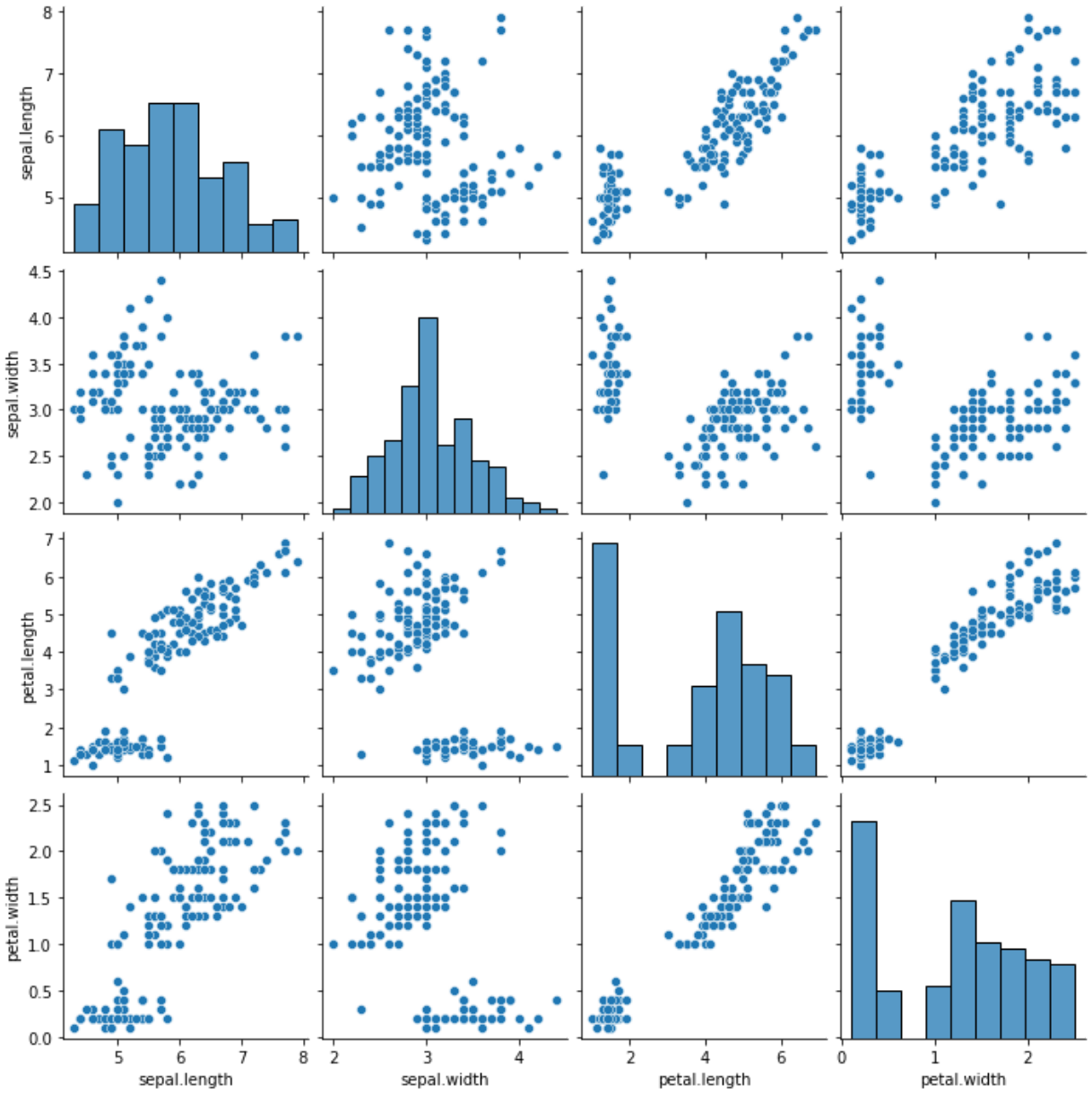
Out[5]: <AxesSubplot:xlabel='sepal.width', ylabel='Density'>




# Exercises 2

In [6]:
```
# Write the code to show the graph below.
sns.pairplot(iris)
```

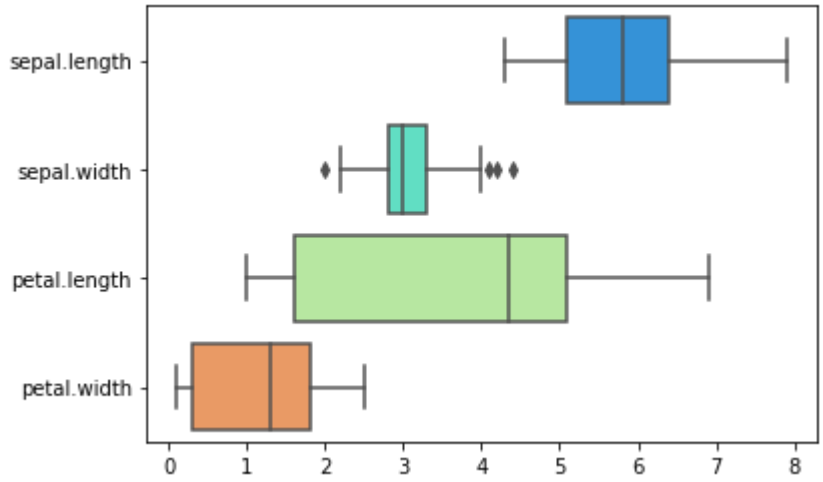
Out[6]: <seaborn.axisgrid.PairGrid at 0x23e9533c700>



# Exercises 3

In [7]:
```
# Write the code to show the graph below.
sns.boxplot(data=iris,palette='rainbow',orient='h')
```

Out[7]: <AxesSubplot:>

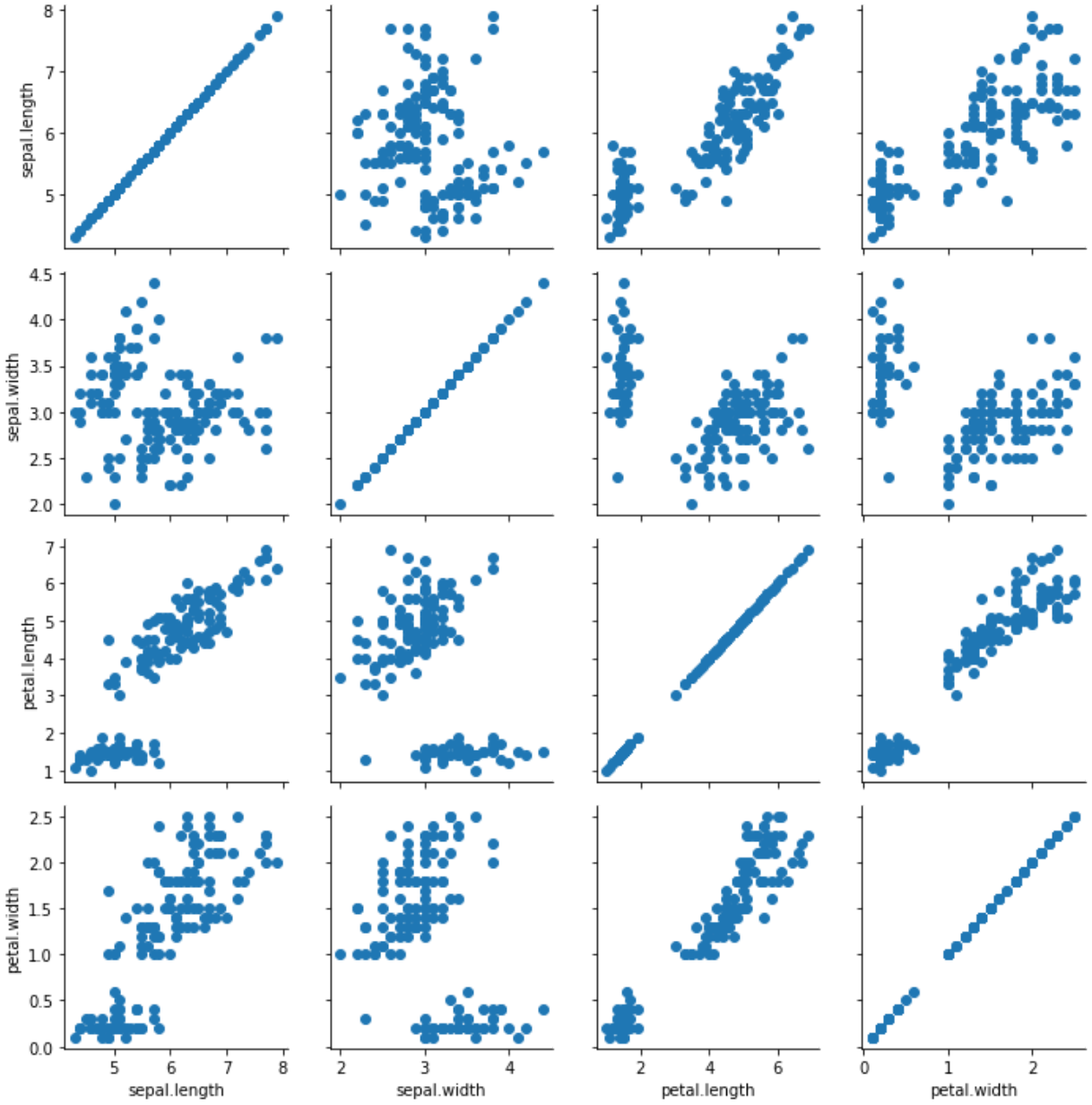



# Exercises 4

In [ ]:
```
# Write the code to show the graph below.
```

In [8]:
```
g = sns.PairGrid(iris)
g.map(plt.scatter)
```

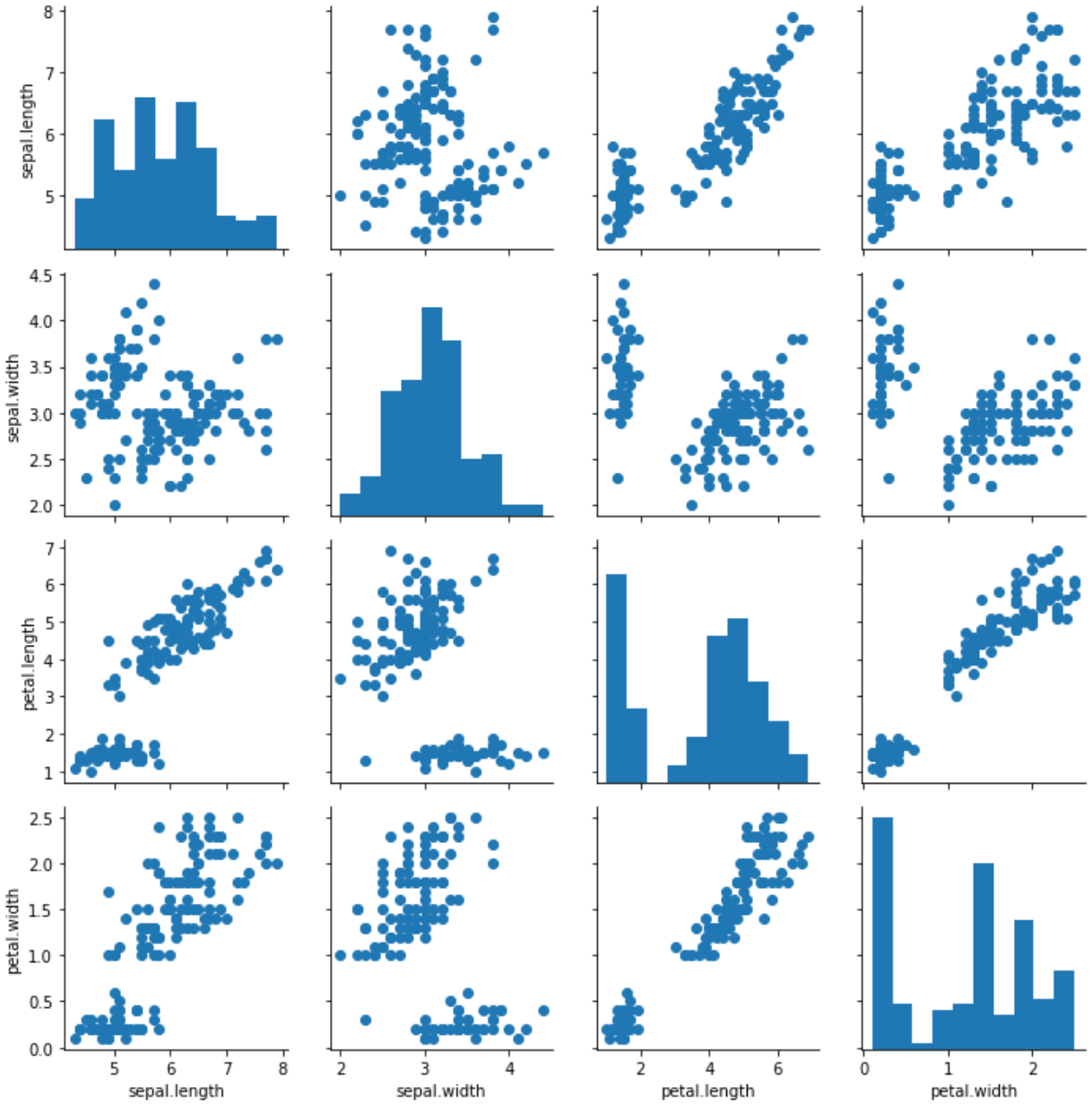
Out[8]: <seaborn.axisgrid.PairGrid at 0x23e95f24790>



# Exercises 5

In [13]:
```
# Write the code to show the graph below.
graph = sns.PairGrid(iris)
graph.map_diag(plt.hist)
graph.map_upper(plt.scatter)
graph.map_lower(plt.scatter)
```

Out[13]: <seaborn.axisgrid.PairGrid at 0x23e9a6cb1c0>




# Exercises 6

Create a Categorical Plot for the column Sex of the Titanic dataset.

In [10]:
```
df = pd.read_csv('Downloads/Titanic.csv')
df.head()
```

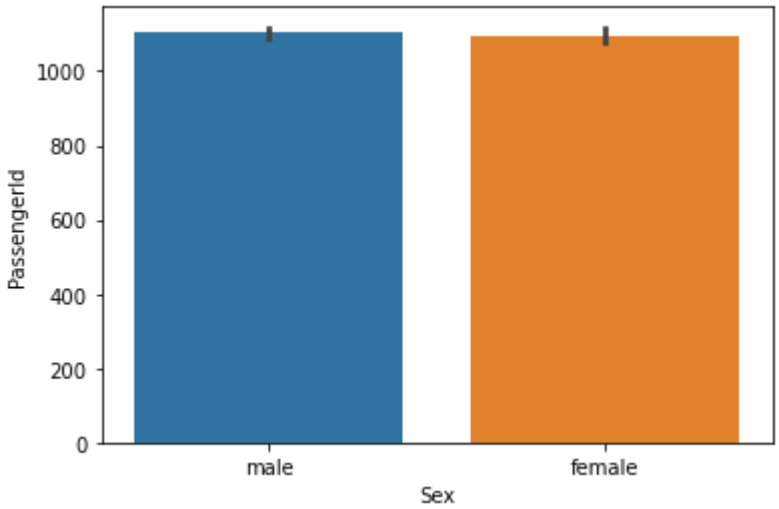
Out[10]:

| | PassengerId | Pclass | Name | Sex | Age | SibSp | Parch | Ticket | Fare | Cabin | Embarke |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 892 | 3 | Kelly, Mr. James | male | 34.5 | 0 | 0 | 330911 | 7.8292 | NaN | Q |
| **1** | 893 | 3 | Wilkes, Mrs. James (Ellen Needs) | female | 47.0 | 1 | 0 | 363272 | 7.0000 | NaN | S |
| **2** | 894 | 2 | Myles, Mr. Thomas Francis | male | 62.0 | 0 | 0 | 240276 | 9.6875 | NaN | Q |
| **3** | 895 | 3 | Wirz, Mr. Albert | male | 27.0 | 0 | 0 | 315154 | 8.6625 | NaN | S |
| **4** | 896 | 3 | Hirvonen, Mrs. Alexander (Helga E Lindqvist) | female | 22.0 | 1 | 1 | 3101298 | 12.2875 | NaN | S |

Please save as Pdf and submit in Blackboard Lab4.

In [11]:
```
sns.barplot(x='Sex',y='PassengerId',data=df)
```

Out[11]:
```
<AxesSubplot:xlabel='Sex', ylabel='PassengerId'>
```




In [ ]:
```
```