

Lab-4

Seaborn Exercises

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Import Numpy, Panda and Matplotlib library

```
In [11]: import numpy as np
import pandas as pd
```

```
In [22]: import matplotlib.pyplot as plt
import seaborn as sns
```

Import Dataset

```
In [16]: data = pd.read_csv("D:\\AIDL\\5000 0NB_Data Analytics\\Assignment_04\\iris.csv")
```

```
In [18]: # print top 5 row of the dataset
```

```
In [20]: data.head()
```

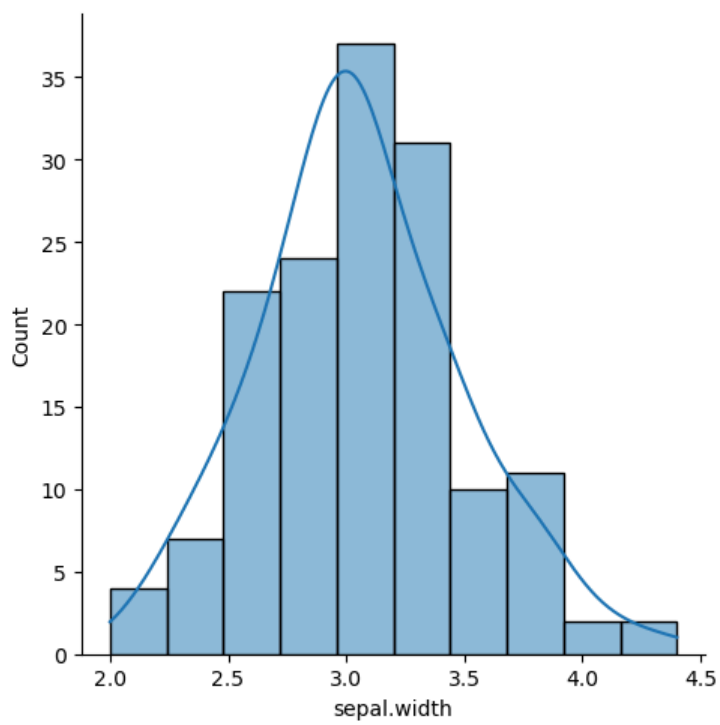
```
Out[20]:
```

	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 [24]: # Write the code to show the graph below.
sns.displot(data["sepal.width"], kde = True, bins = 10)
```

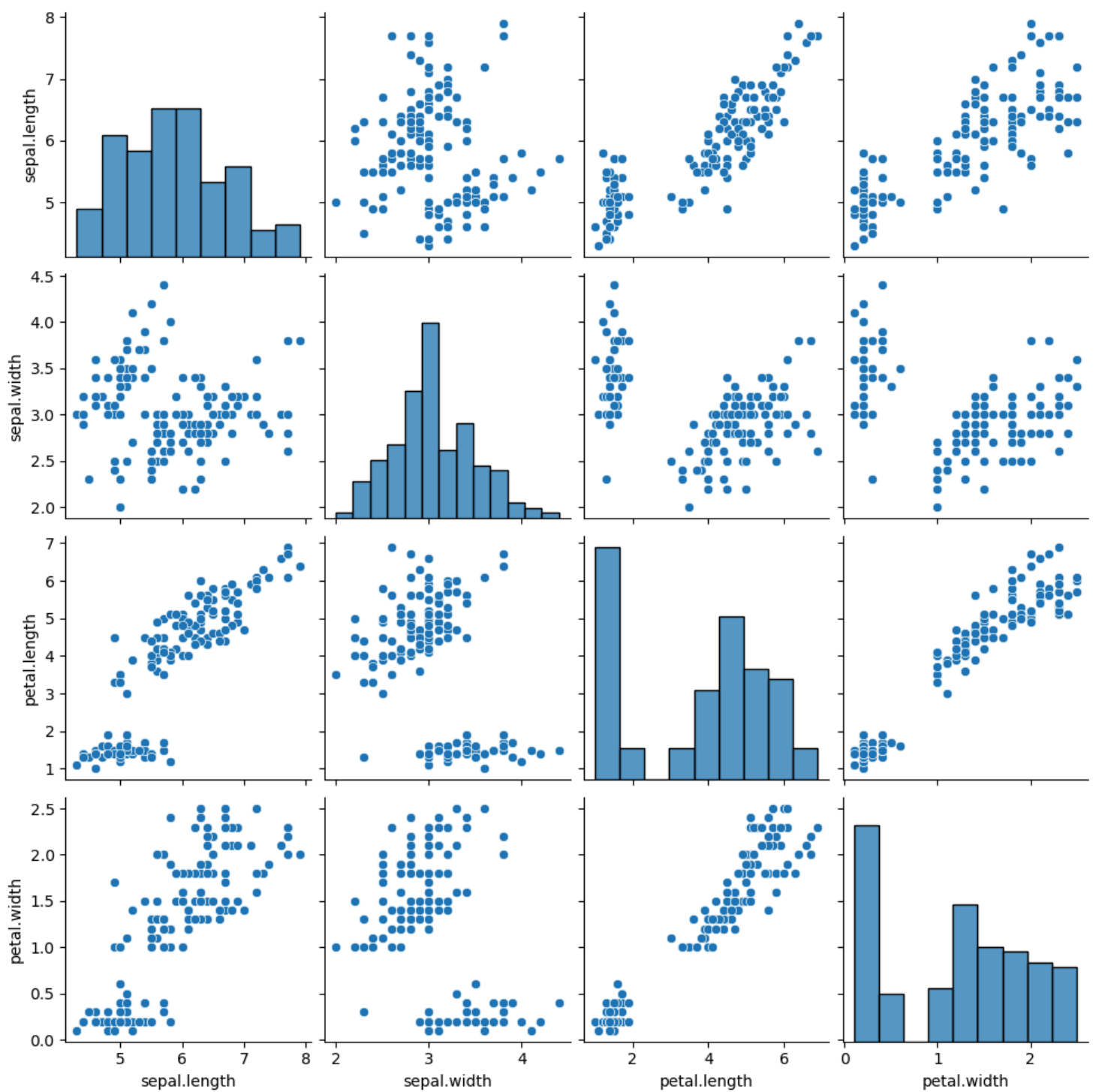
```
Out[24]: <seaborn.axisgrid.FacetGrid at 0x1941c290620>
```



Exercises 2

In [26]: *# Write the code to show the graph below.*
`sns.pairplot(data)`

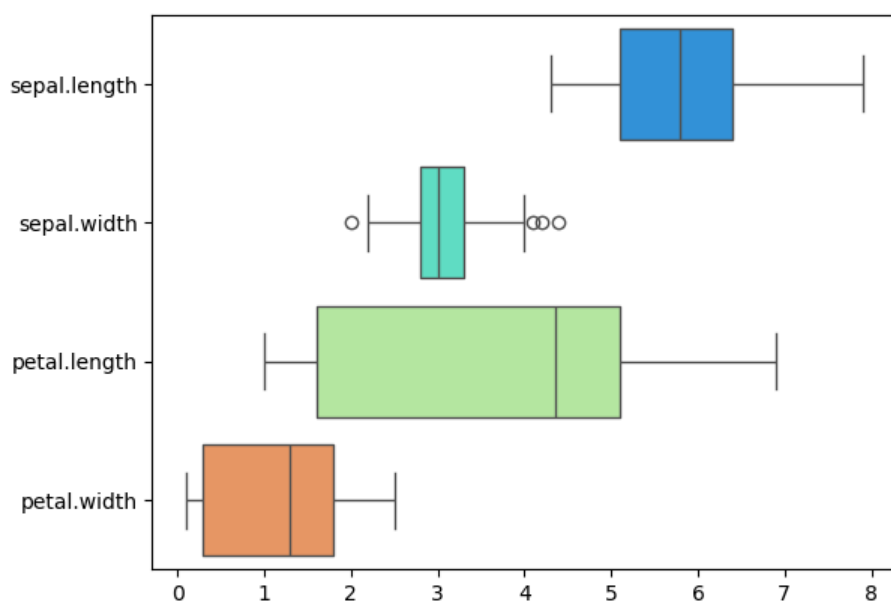
Out[26]: <seaborn.axisgrid.PairGrid at 0x1941c42ee70>



Exercises 3

```
In [28]: # Write the code to show the graph below.
sns.boxplot(data, palette = "rainbow", orient = "h")
```

```
Out[28]: <Axes: >
```

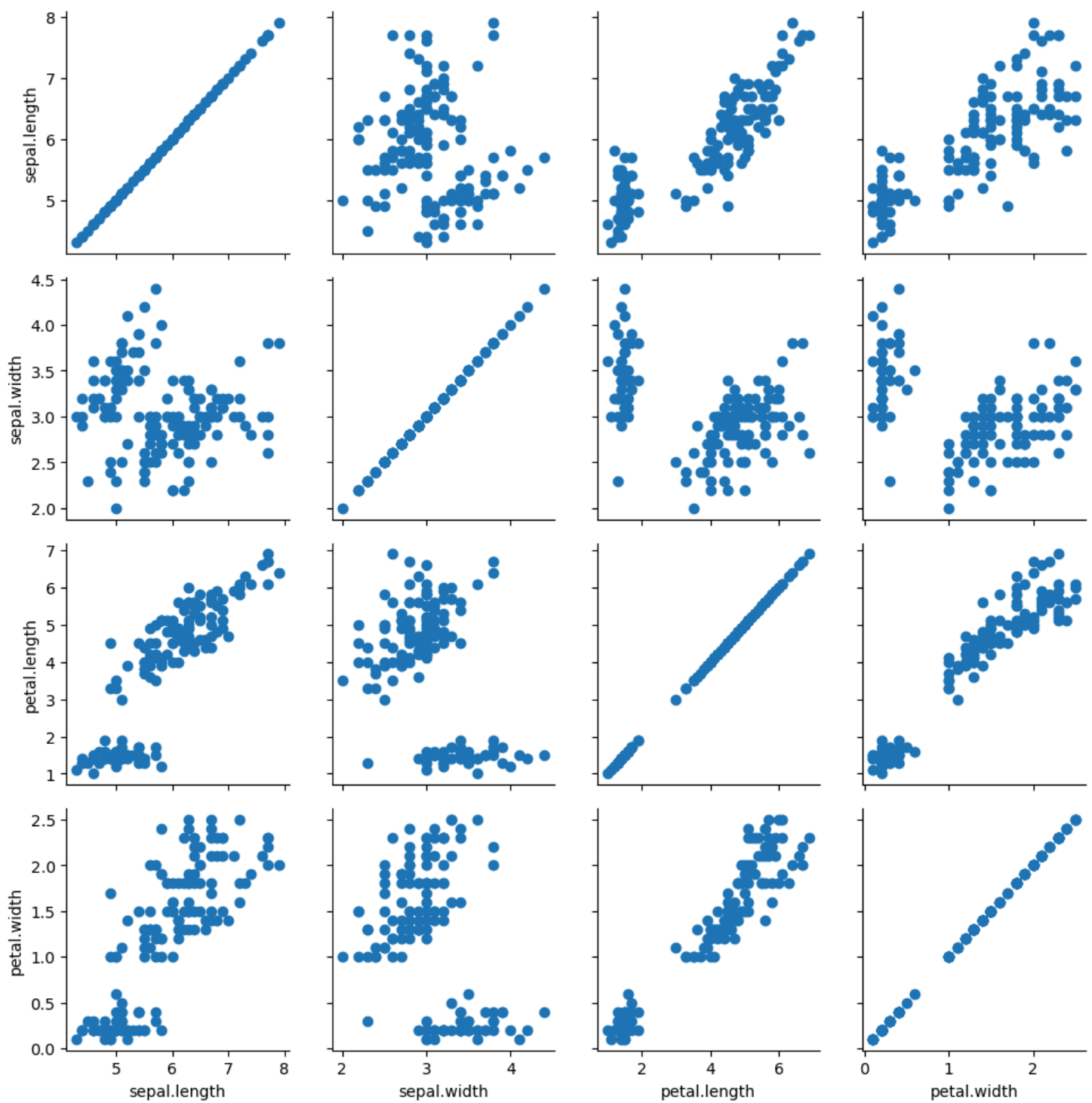


Exercises 4

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

```
In [32]: d = sns.PairGrid(data)
d.map(plt.scatter)
```

```
Out[32]: <seaborn.axisgrid.PairGrid at 0x194245fd4c0>
```

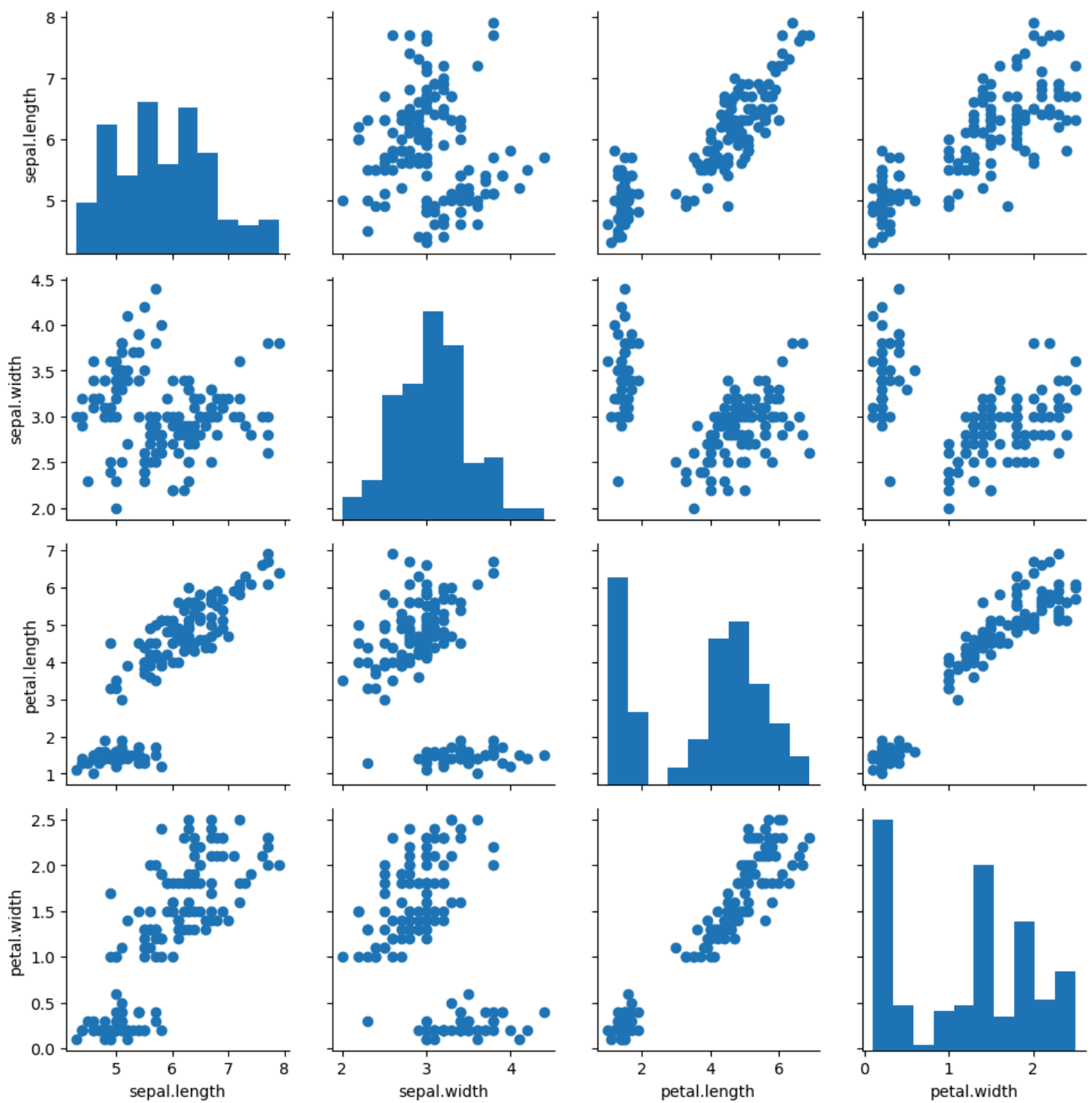


Exercises 5

In [34]: *# Write the code to show the graph below.*

```
d = sns.PairGrid(data)
d.map_diag(plt.hist)
d.map_upper(plt.scatter)
d.map_lower(plt.scatter)
```

Out[34]: <seaborn.axisgrid.PairGrid at 0x19424013e90>

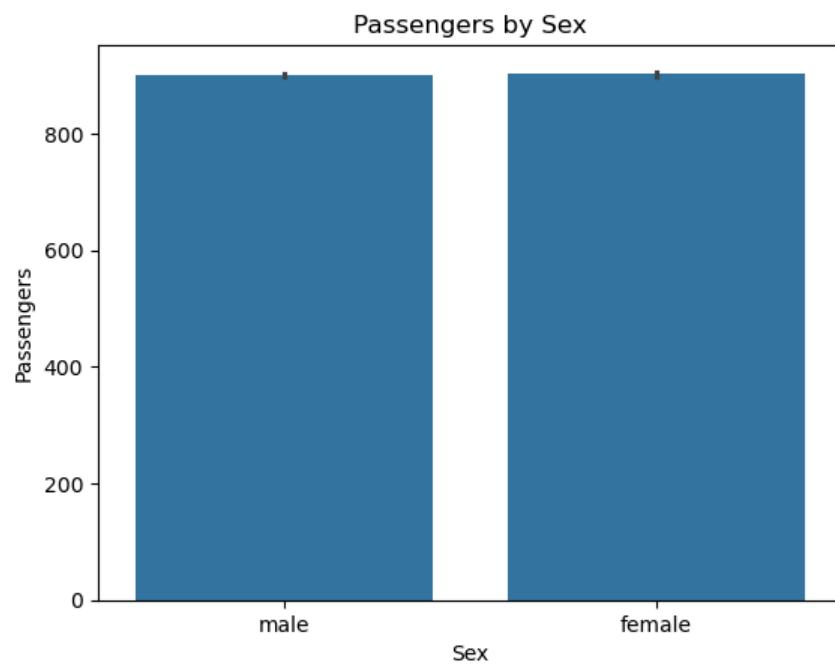


Exercises 6

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

```
In [44]: titanic = pd.read_csv("D:\\AIML\\5000 0NB_Data Analytics\\Assignment_03\\Titanic_1.csv")

sns.barplot(titanic, x = "Sex", y = "PassengerId")
plt.title("Passengers by Sex")
plt.xlabel("Sex")
plt.ylabel("Passengers")
plt.show()
```



Please save as Pdf and submit in Blackboard Lab4.