

TE C Assignment No - 10

May 19, 2023

```
[2]: import seaborn as sns
iris = sns.load_dataset("iris")
```

```
[3]: iris
```

```
[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
..          ...           ...           ...           ...     ...
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
```

[150 rows x 5 columns]

```
[4]: iris.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
```

```
[5]: iris.describe()
```

```
[5]:
```

	sepal_length	sepal_width	petal_length	petal_width
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.057333	3.758000	1.199333
std	0.828066	0.435866	1.765298	0.762238
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

```
[6]: type(iris.sepal_length)
```

```
[6]: pandas.core.series.Series
```

```
[7]: iris.sepal_length.dtype
```

```
[7]: dtype('float64')
```

```
[8]: iris.sepal_width.dtype
```

```
[8]: dtype('float64')
```

```
[9]: iris.petal_length.dtype
```

```
[9]: dtype('float64')
```

```
[10]: iris.petal_width.dtype
```

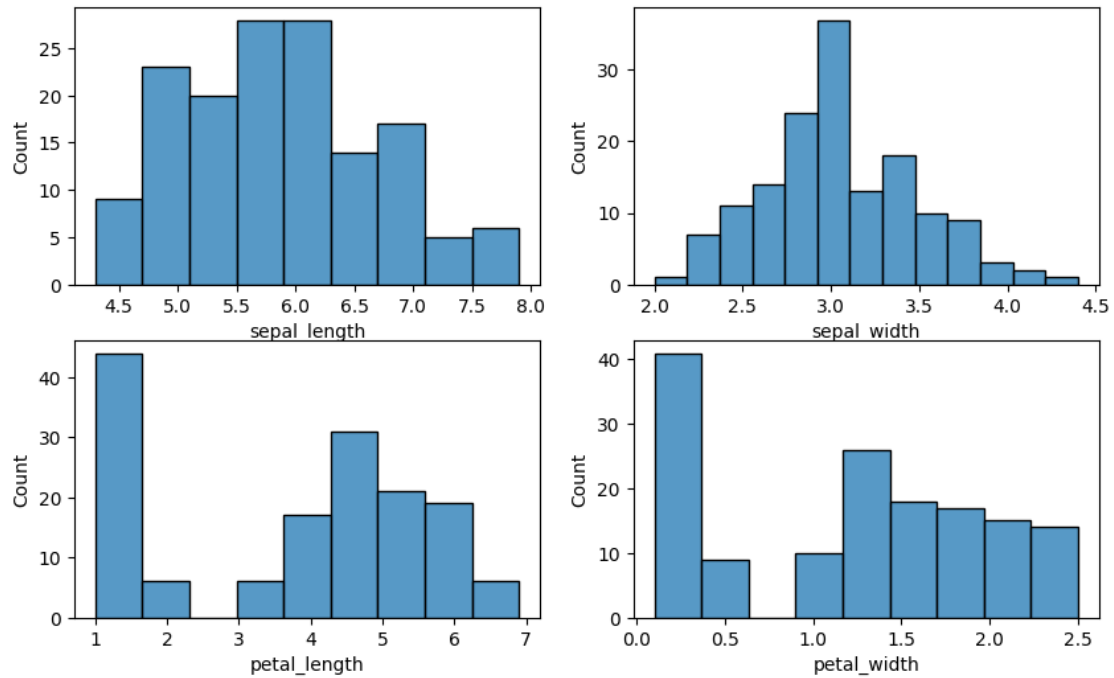
```
[10]: dtype('float64')
```

```
[11]: iris.species.dtype
```

```
[11]: dtype('O')
```

```
[12]: import matplotlib.pyplot as plt
fig, axes = plt.subplots(2, 2, figsize=(10, 6))
sns.histplot(iris["sepal_length"], ax=axes[0, 0])
sns.histplot(iris["sepal_width"], ax=axes[0, 1])
sns.histplot(iris["petal_length"], ax=axes[1, 0])
sns.histplot(iris["petal_width"], ax=axes[1, 1])
```

```
[12]: <Axes: xlabel='petal_width', ylabel='Count'>
```



```
[13]: #For boxplot
fig, axes = plt.subplots(2, 2, figsize=(16, 10))
sns.boxplot(x="species", y="sepal_length", data=iris, ax=axes[0, 0])
sns.boxplot(x="species", y="sepal_width", data=iris, ax=axes[0, 1])
sns.boxplot(x="species", y="petal_length", data=iris, ax=axes[1, 0])
sns.boxplot(x="species", y="petal_width", data=iris, ax=axes[1, 1])
```

```
[13]: <Axes: xlabel='species', ylabel='petal_width'>
```

