

#Assignment 10

```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

```
pip install seaborn==0.11.0
```

Defaulting to user installation because normal site-packages is not writeable

Requirement already satisfied: seaborn==0.11.0 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (0.11.0)

Requirement already satisfied: numpy>=1.15 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from seaborn==0.11.0) (1.24.3)

Requirement already satisfied: scipy>=1.0 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from seaborn==0.11.0) (1.11.2)

Requirement already satisfied: pandas>=0.23 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from seaborn==0.11.0) (2.0.3)

Requirement already satisfied: matplotlib>=2.2 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from seaborn==0.11.0) (3.7.2)

Requirement already satisfied: contourpy>=1.0.1 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from matplotlib>=2.2->seaborn==0.11.0) (1.1.0)

Requirement already satisfied: cyclor>=0.10 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from matplotlib>=2.2->seaborn==0.11.0) (0.11.0)

Requirement already satisfied: fonttools>=4.22.0 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from matplotlib>=2.2->seaborn==0.11.0) (4.42.0)

Requirement already satisfied: kiwisolver>=1.0.1 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from matplotlib>=2.2->seaborn==0.11.0) (1.4.4)

Requirement already satisfied: packaging>=20.0 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from matplotlib>=2.2->seaborn==0.11.0) (23.1)

Requirement already satisfied: pillow>=6.2.0 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from matplotlib>=2.2->seaborn==0.11.0) (10.0.0)

Requirement already satisfied: pyparsing<3.1,>=2.3.1 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from matplotlib>=2.2->seaborn==0.11.0) (3.0.9)

Requirement already satisfied: python-dateutil>=2.7 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from matplotlib>=2.2->seaborn==0.11.0) (2.8.2)

Requirement already satisfied: pytz>=2020.1 in c:\users\stev3raj\appdata\roaming\python\python311\site-packages (from pandas>=0.23-

```
>seaborn==0.11.0) (2023.3)
Requirement already satisfied: tzdata>=2022.1 in c:\users\stev3raj\
appdata\roaming\python\python311\site-packages (from pandas>=0.23-
>seaborn==0.11.0) (2023.3)
Requirement already satisfied: six>=1.5 in c:\users\stev3raj\appdata\
roaming\python\python311\site-packages (from python-dateutil>=2.7-
>matplotlib>=2.2->seaborn==0.11.0) (1.16.0)
Note: you may need to restart the kernel to use updated packages.
```

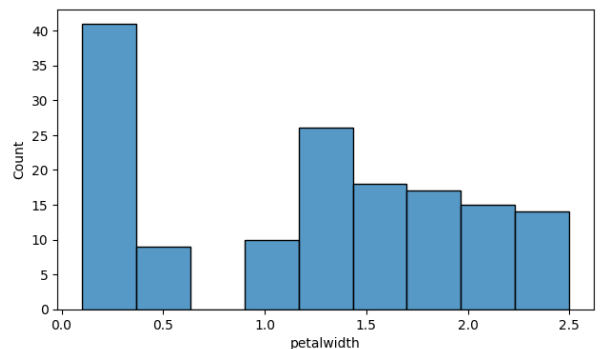
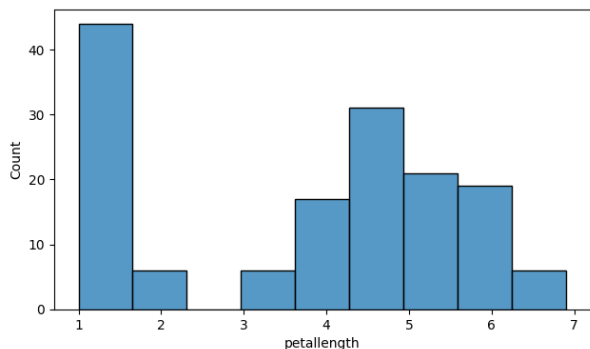
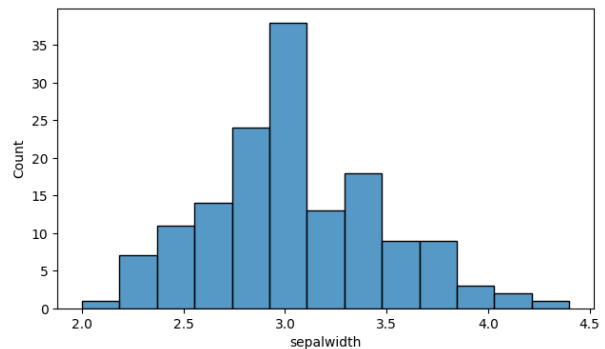
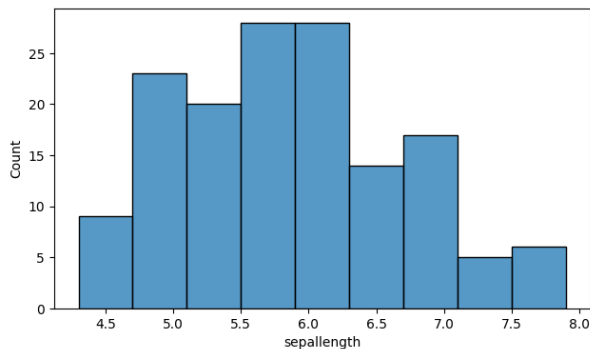
```
data = pd.read_csv('iris.csv')
```

```
data.head()
```

	sepalength	sepalwidth	petallength	petalwidth	class
0	5.1	3.5	1.4	0.2	Iris-setosa
1	4.9	3.0	1.4	0.2	Iris-setosa
2	4.7	3.2	1.3	0.2	Iris-setosa
3	4.6	3.1	1.5	0.2	Iris-setosa
4	5.0	3.6	1.4	0.2	Iris-setosa

```
import matplotlib.pyplot as plt
fig, axes = plt.subplots(2, 2, figsize = (16, 9))
sns.histplot(data['sepalength'], ax = axes[0, 0])
sns.histplot(data['sepalwidth'], ax = axes[0, 1])
sns.histplot(data['petallength'], ax = axes[1, 0])
sns.histplot(data['petalwidth'], ax = axes[1, 1])
```

```
<Axes: xlabel='petalwidth', ylabel='Count'>
```



```
import matplotlib.pyplot as plt
fig, axes = plt.subplots(2, 2, figsize = (16, 9))
sns.boxplot(y = 'petallength', x = 'class', data = data, ax =
axes[0,0])
sns.boxplot(y = 'petalwidth', x = 'class', data = data, ax =
axes[0,1])
sns.boxplot(y = 'sepalength', x = 'class', data = data, ax =
axes[1,0])
sns.boxplot(y = 'sepalwidth', x = 'class', data = data, ax =
axes[1,1])
<Axes: xlabel='class', ylabel='sepalwidth'>
```

