

```
In [1]: import pandas as pd
```

```
In [3]: # Reading the CSV file  
df = pd.read_csv("iris_csv.csv")  
  
# Printing top 5 rows  
df.head()
```

```
Out[3]:
```

	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

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

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

```
In [5]: df.info()
```

Out[4]: (150, 5)

In [5]: df.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 5 columns):
#   Column      Non-Null Count  Dtype
---  ---
0   sepallength  150 non-null    float64
1   sepalwidth   150 non-null    float64
2   petallength  150 non-null    float64
3   petalwidth   150 non-null    float64
4   class        150 non-null    object
dtypes: float64(4), object(1)
memory usage: 6.0+ KB
```

In [6]: df.describe()

Out[6]:

	sepallength	sepalwidth	petallength	petalwidth
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.054000	3.758667	1.198667
std	0.828066	0.433594	1.764420	0.763161
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.300000
50%	5.800000	3.200000	2.200000	0.700000
75%	6.500000	3.600000	2.800000	1.100000
max	7.900000	4.700000	4.900000	1.900000

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

In [7]: `df.isnull().sum()`

Out[7]:

sepalength	0
sepalwidth	0
petallength	0
petalwidth	0
class	0

dtype: int64

In [10]: `data = df.drop_duplicates(subset="class",)`
`data`

Out[10]:

	sepalength	sepalwidth	petallength	petalwidth	class
0	5.1	3.5	1.4	0.2	Iris-setosa
50	7.0	3.2	4.7	1.4	Iris-versicolor
100	6.3	3.3	6.0	2.5	Iris-virginica

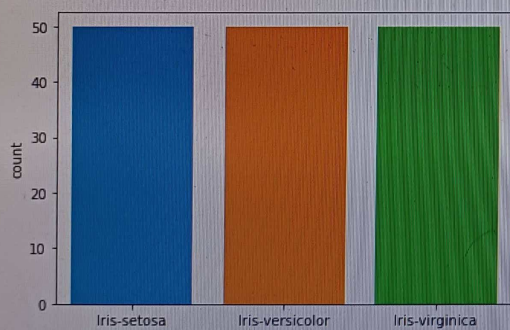
In [12]: `df.value_counts("class")`

Out[12]: class

```
Out[12]: class
Iris-setosa      50
Iris-versicolor  50
Iris-virginica   50
dtype: int64
```

```
In [14]: import seaborn as sns
import matplotlib.pyplot as plt
```

```
In [15]: sns.countplot(x='class', data=df, )
plt.show()
```



Iris-setosa Iris-versicolor Iris-virginica
class

```
In [18]: #Example 1: Comparing Sepal Length and Sepal Width
# importing packages
import seaborn as sns
import matplotlib.pyplot as plt

sns.scatterplot(x='sepalwidth', y='sepalwidth',
                hue='class', data=df, )

# Placing Legend outside the Figure
plt.legend(bbox_to_anchor=(1, 1), loc=2)

plt.show()
```



```
In [19]: #Example 2: Comparing Petal Length and Petal Width
# importing packages
import seaborn as sns
import matplotlib.pyplot as plt

sns.scatterplot(x='petallength', y='petalwidth',
                hue='class', data=df, )

# Placing Legend outside the Figure
plt.legend(bbox_to_anchor=(1, 1), loc=2)

plt.show()
```

