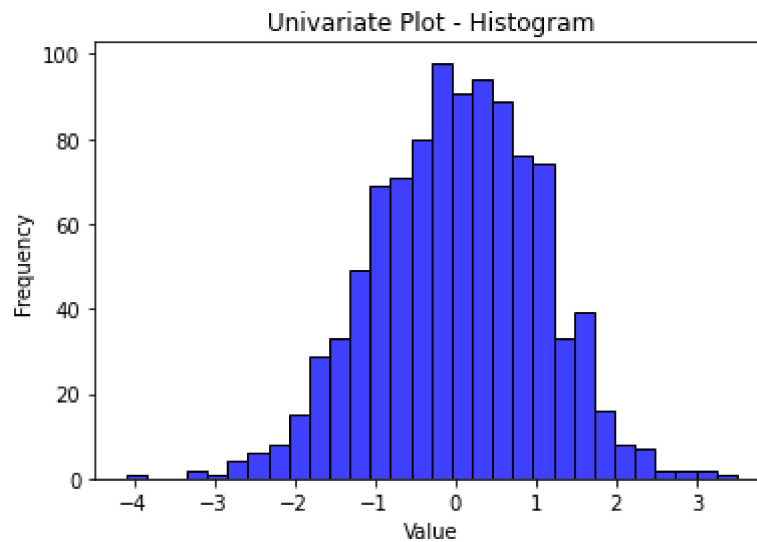


# Histogram

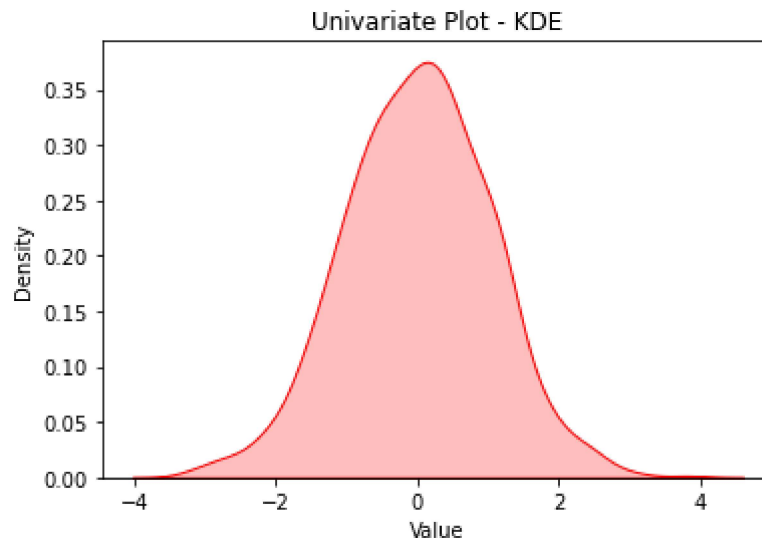
```
In [7]: import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np

data = np.random.randn(1000)
sns.histplot(data, bins=30, color="blue")
plt.title("Univariate Plot - Histogram")
plt.xlabel("Value")
plt.ylabel("Frequency")
plt.show()
```



## KDF plot

```
In [9]: import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np
data = np.random.randn(1000)
sns.kdeplot(data, shade=True, color="red")
plt.title("Univariate Plot - KDE")
plt.xlabel("Value")
plt.ylabel("Density")
plt.show()
```

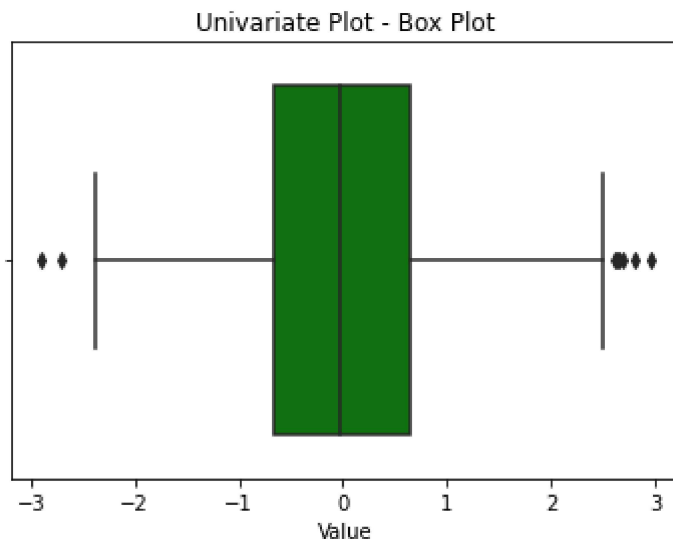


## Boxplot

```
In [15]: import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np
data = np.random.randn(1000)
sns.boxplot(data, color="green")
plt.title("Univariate Plot - Box Plot")
plt.xlabel("Value")
plt.show()
```

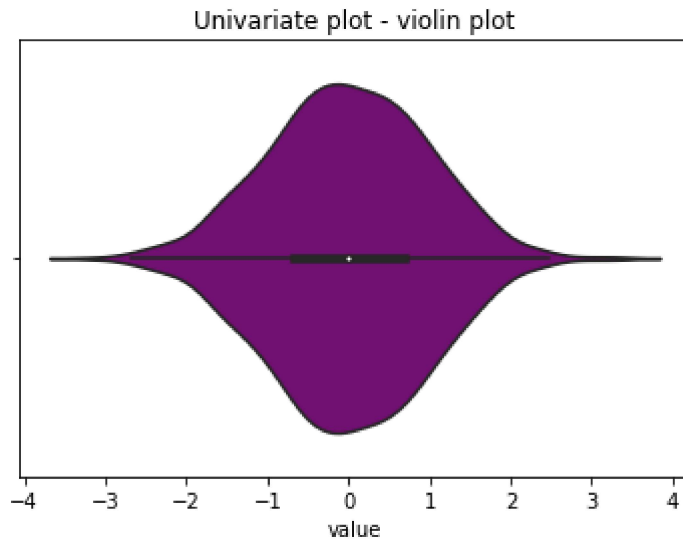
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\\_decorators.py:36: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.

warnings.warn(



## Violinplot

```
In [16]: import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np
data = np.random.randn(1000)
sns.violinplot(x=data,color="purple")
plt.title("Univariate plot - violin plot")
plt.xlabel("value")
plt.show()
```

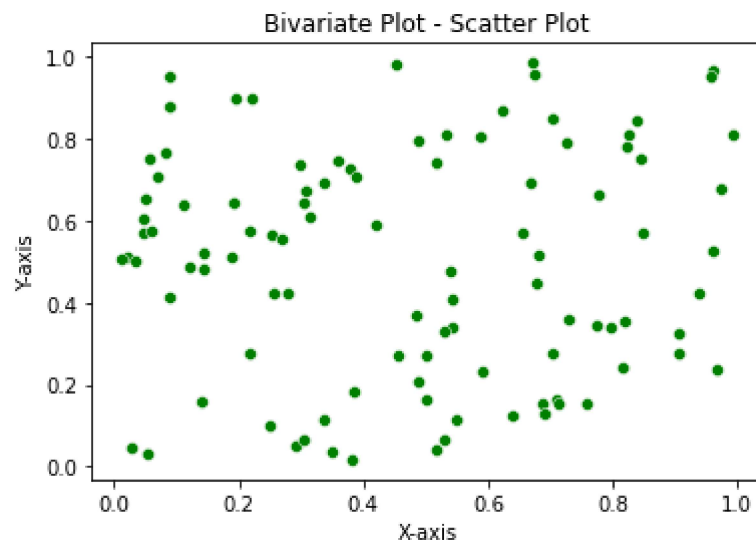


## Bivariate plots\_Scatter plot

```
In [17]: import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np

x = np.random.rand(100)
y = np.random.rand(100)

sns.scatterplot(x=x, y=y, color="green")
plt.title("Bivariate Plot - Scatter Plot")
plt.xlabel("X-axis")
plt.ylabel("Y-axis")
plt.show()
```

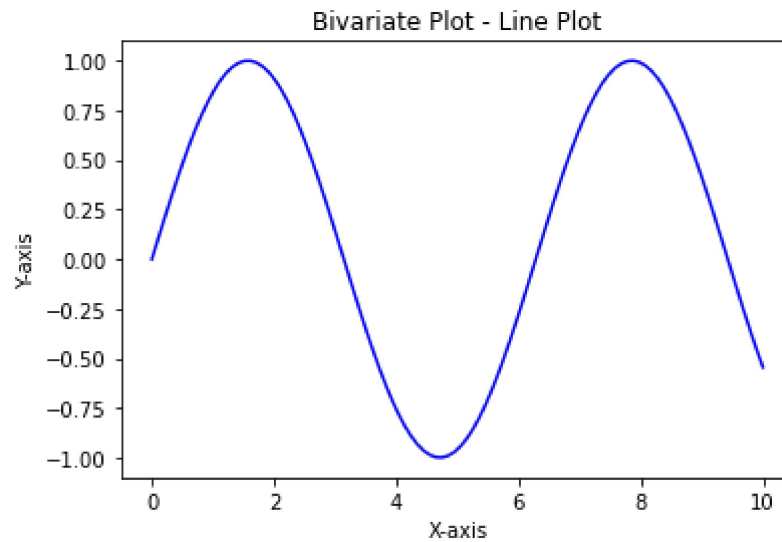


## Lineplot

```
In [18]: import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np

x = np.linspace(0, 10, 100)
y = np.sin(x)

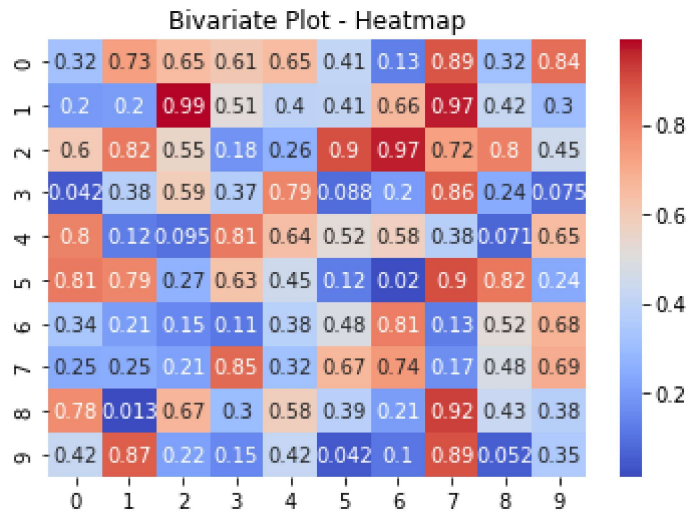
sns.lineplot(x=x, y=y, color="blue")
plt.title("Bivariate Plot - Line Plot")
plt.xlabel("X-axis")
plt.ylabel("Y-axis")
plt.show()
```



## Heatmap

```
In [19]: import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np

data = np.random.rand(10, 10)
sns.heatmap(data, annot=True, cmap="coolwarm")
plt.title("Bivariate Plot - Heatmap")
plt.show()
```

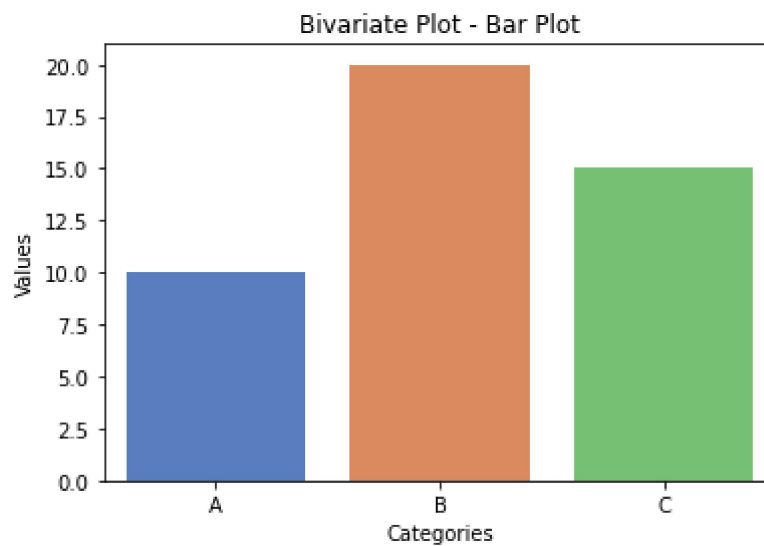


## Bar plot

```
In [20]: import seaborn as sns
import matplotlib.pyplot as plt

categories = ["A", "B", "C"]
values = [10, 20, 15]

sns.barplot(x=categories, y=values, palette="muted")
plt.title("Bivariate Plot - Bar Plot")
plt.xlabel("Categories")
plt.ylabel("Values")
plt.show()
```



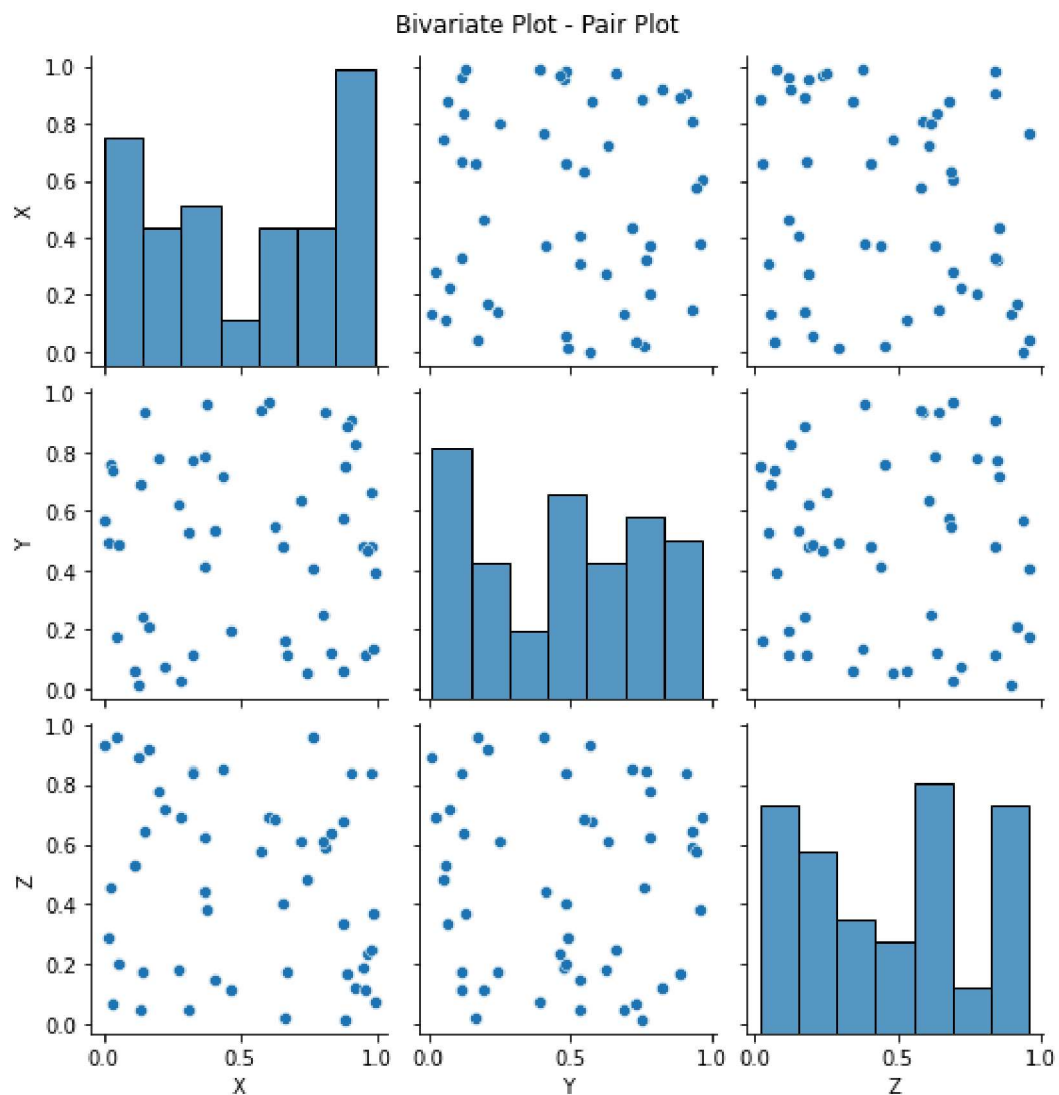
## Pairplot



```
In [22]: import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt

data = pd.DataFrame({
    "X": np.random.rand(50),
    "Y": np.random.rand(50),
    "Z": np.random.rand(50)
})

sns.pairplot(data)
plt.suptitle("Bivariate Plot - Pair Plot", y=1.02)
plt.show()
```



In [ ]:

