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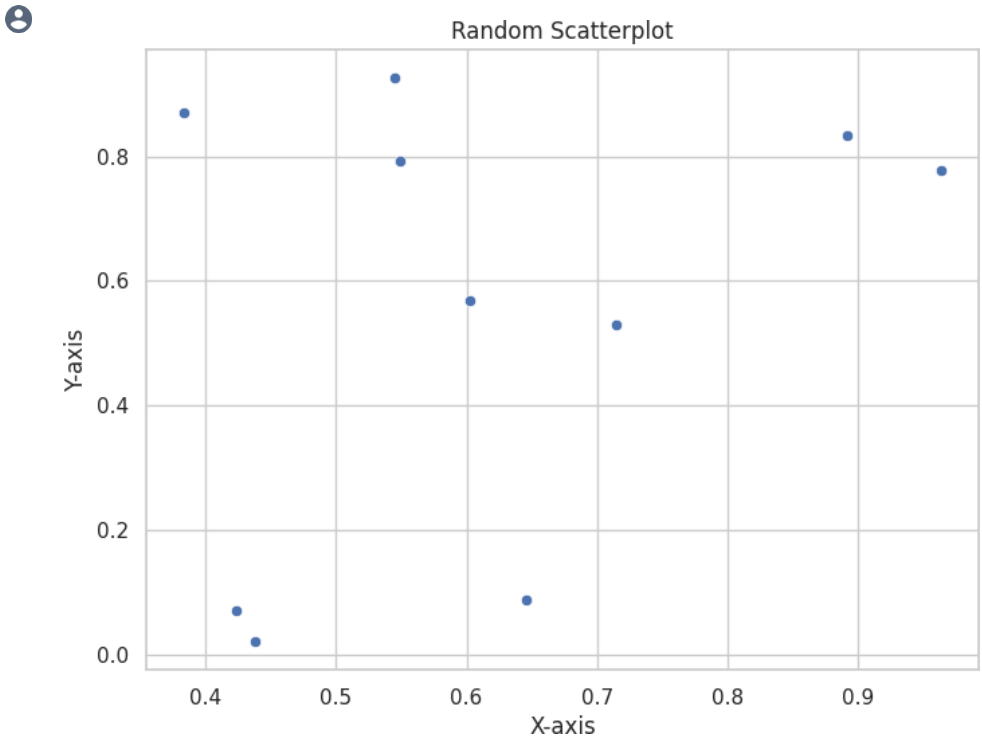
Practical:-8

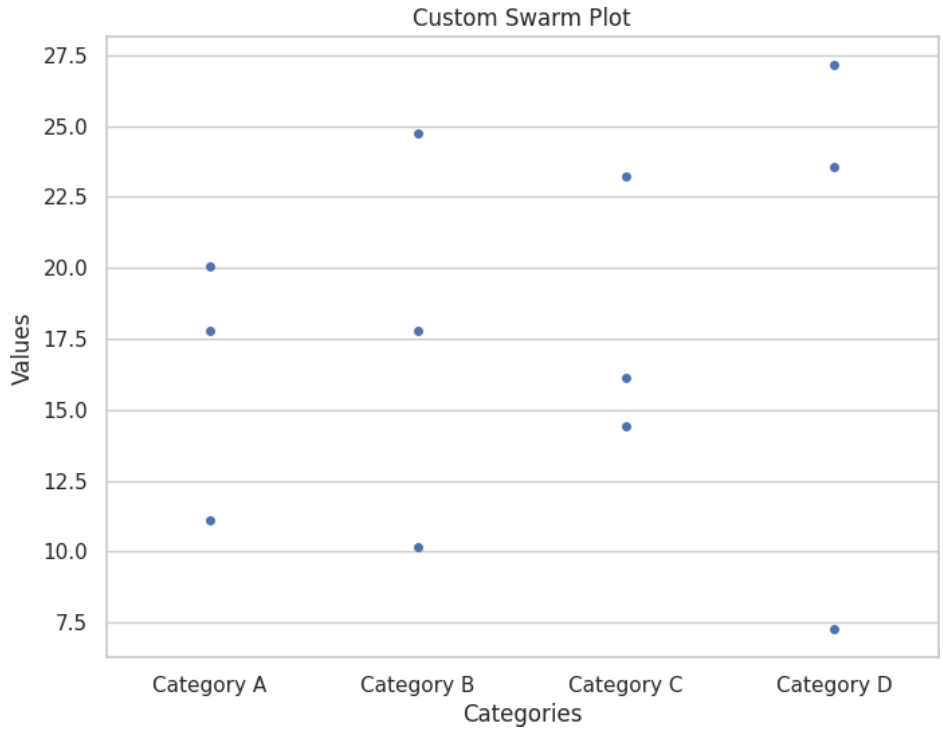
Roll no:-24 Sub:- DV

```
import seaborn as sns
    \
    import numpy as np

    # Generate random data
    np.random.seed(0)
    x = np.random.rand(10)  # Random x values
    y = np.random.rand(10)  # Random y values

    # Create a scatterplot
    sns.set(style="whitegrid")  # Optional: Set a style for the plot
    plt.figure(figsize=(8, 6))  # Optional: Set the figure size

    # Create the scatterplot using Seaborn
    sns.scatterplot(x=x, y=y)

    # Optional: Customize the plot further
    plt.title("Random Scatterplot")
    plt.xlabel("X-axis")
    plt.ylabel("Y-axis")

    # Show the plot
    plt.show()
```



SWARM PLOT

```
import seaborn as sns
import matplotlib.pyplot as plt
import random

# Create custom data with equal-length lists
categories = ["Category A"] * 3 + ["Category B"] * 3 + ["Category C"] * 3 + ["Category D"] * 3
values = [random.uniform(4, 30) for _ in range(12)]  #3Generate 40 random values

# Create a swarm plot
sns.set(style="whitegrid")  # Optional: Set a style for the plot
plt.figure(figsize=(8, 6))  # Optional: Set the figure size

# Create the swarm plot using Seaborn
sns.swarmplot(x=categories, y=values)

# Customize the plot (optional)
plt.title("Custom Swarm Plot")
plt.xlabel("Categories")  plt.ylabel("Values")

# Show the plot
plt.show()
```

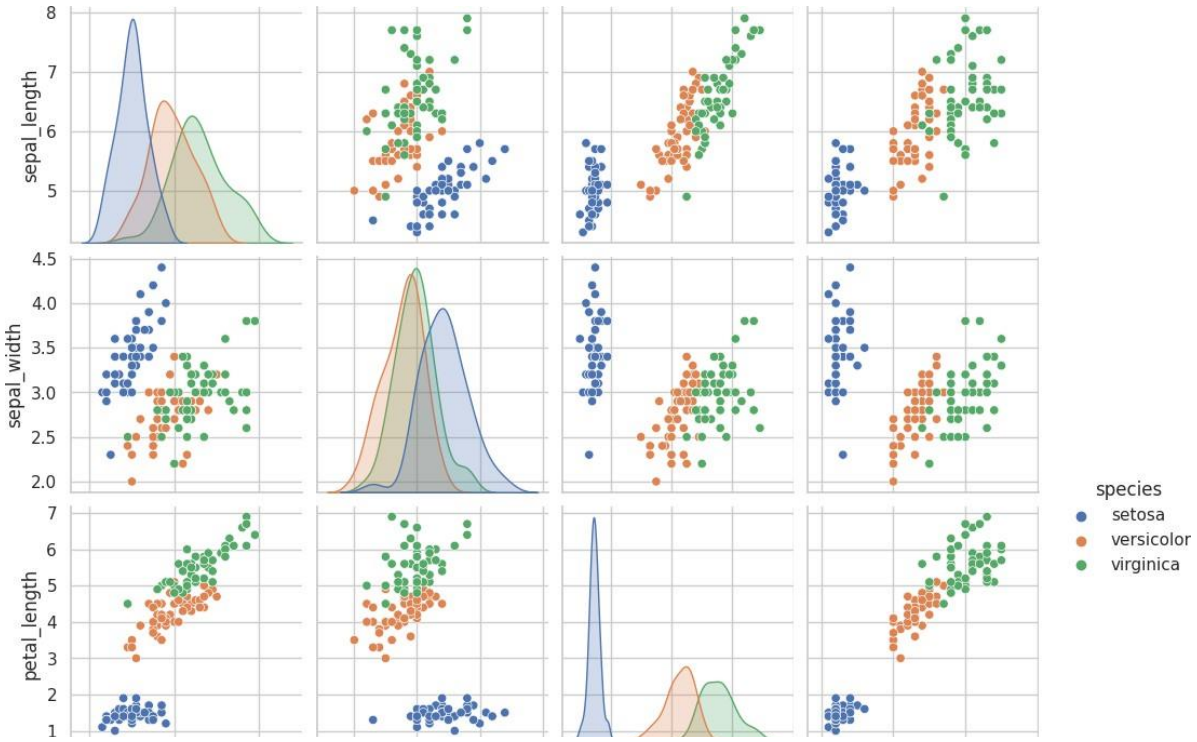


pairplot

```
import seaborn as sns
import pandas as pd

iris = sns.load_dataset("iris")

sns.pairplot(iris, hue="species")    #The hue parameter in the pairplot() function is used to color the points in the plots based on a third variable.
```

C:\Users\HP\AppData\Local\Programs\Python\Python310\lib\site-packages\seaborn\axisgrid.py:118: UserWarning: The figure layout has changed to tight
self._figure.tight_layout(*args, **kwargs)

<seaborn.axisgrid.PairGrid at 0x2316d115ba0>




```
sns.pairplot(iris, kind="heatmap", hue="species")
```

```
C:\Users\HP\AppData\Local\Programs\Python\Python310\lib\site-packages\seaborn\axisgrid.py:118: UserWarning: The figure layout has changed to tight
  self._figure.tight_layout(*args, **kwargs)
<seaborn.axisgrid.PairGrid at 0x2316d40a5c0>
```