Swarm Plot

Graph assignment
By
MuthuKumaranM

Why Swarm Plot is Important in Seaborn (Easy Explanation)

A Swarm Plot in Seaborn is used to visualize the distribution of data points while avoiding overlap. It is very useful in exploratory data analysis (EDA)

What is a Swarm Plot?

A swarm plot displays all individual data points for a variable, spread out along a categorical axis so that no two points overlap.It is an improved version of a strip plot.

1 Shows Actual Data Points

Unlike boxplots or violin plots, swarm plots show every single observation

Helps understand true data distribution

2 Avoids Overlapping

Automatically adjusts points so they don't overlap

Makes dense data clearly visible

3 Best for Small to Medium Datasets
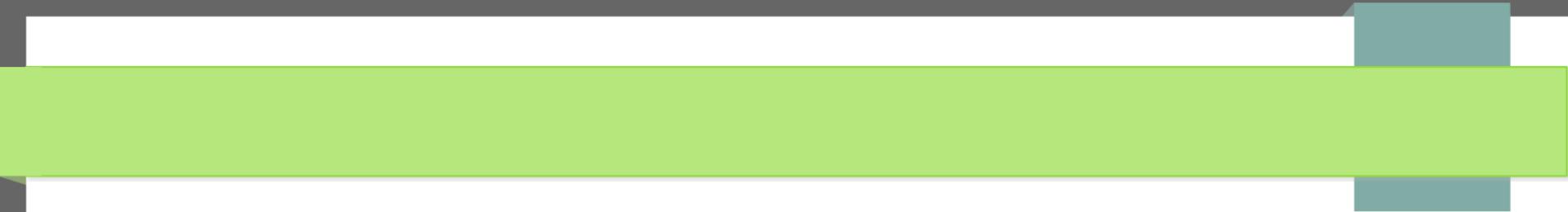
Ideal when you want to see all values

Perfect for academic & project analysis

4. Great for Comparing Categories

Useful in bivariate analysis Example: salary vs specialisation, marks vs placement status

5.Detects Outliers Clearly

Outliers stand out visually easier than boxplots in some cases

Code to make swarmPlot:

```
import seaborn as sns
import matplotlib.pyplot as plt
sns.swarmplot(x='specialisation', y='salary', data=dataset)
plt.show()
```

📊 Swarm Plot vs Others

Plot	Shows points	Handles overlap	Best for
Strip Plot	✅	❌	Simple view
Swarm Plot	✅	✅	Clean comparison
Box Plot	❌	✅	Summary stats
Violin Plot	❌	✅	Distribution

```
sns.swarmplot(x='gender',y='ssc_p',data=df)
plt.show()
```