

Choosing the Right Plot: A Guide for Data Visualization

1. Know Your Data

Type	Examples
Numerical	tip, total_bill, age, income
Categorical	smoker, sex, day, class
Time/Order	year,month, time

2. What’s Your Goal

Goal	Plot Type	Seaborn Function
Distribution	Histogram / KDE / Box / Violin	histplot, boxplot, violinplot, kdeplot
Compare categories	Box / Violin / Bar	boxplot, violinplot, barplot, catplot
Relationship between 2 nums	Scatter / Line / Reg Line	scatterplot, lineplot, regplot, Implot
Trend over time	Line	lineplot, Implot
Count categories	Bar / Count	countplot, barplot
Heat or grid comparison	Heatmap	heatmap, pivot_table

Cheat Sheet Summary:

If You Have...	Use...
One numerical variable	histplot, boxplot, kdeplot
One numerical + one categorical	boxplot, violinplot, barplot
Two numerical variables	scatterplot, regplot, lineplot
Time series	lineplot, Implot
Categorical count	countplot, barplot
Grid-like values (e.g., month x year)	heatmap + pivot