No	Category	Function Name	Imp_Arguments	Function Description	Example
1	Line Plot	*plot()*	x: Data for the x-axis y: Data for the y-axis label: Label for the legend color: Line color linestyle: Line style.	The plot() function is used to create a line plot.	`plt.plot(x, y, label='Line 1', color='blue', linestyle='--')`
2	Scatter Plot	*scatter()*	x: Data for the x-axis y: Data for the y-axis s: Marker size c: Marker color alpha: Transparency level.	The scatter() function is used to create a scatter plot.	`plt.scatter(x, y, s=50, c='red', alpha=0.5)`
3	Bar Plot	*bar()*	x: Categories for the x-axis height: Heights of the bars width: Width of the bars color: Bar color.	The bar() function is used to create a bar plot.	`plt.bar(categories, heights, width=0.4, color='green')`
4	Histogram	*hist()*	x: Data for the histogram bins: Number of bins range: Range of the histogram color: Bar color alpha: Transparency level.	The hist() function is used to create a histogram.	`plt.hist(data, bins=10, color='blue', alpha=0.7)`
5	Pie Chart	*pie()*	x: Data for the pie chart labels: Labels for each slice autopct: String to format percentages startangle: Starting angle for the pie chart.	The pie() function is used to create a pie chart.	`plt.pie(data, labels=categories, autopct='%1.1f%%', startangle=90)`
6	Box Plot	*boxplot()*	x: Data for the box plot patch_artist: Whether to fill boxes with color labels: Labels for the box plots.	The boxplot() function is used to create a box plot.	`plt.boxplot(data, patch_artist=True, labels=['Group 1'])`
7	Error Bar Plot	*errorbar()*	x: Data for the x-axis y: Data for the y-axis yerr: Error values for y xerr: Error values for x fmt: Format of the plot.	The errorbar() function is used to plot data with error bars.	`plt.errorbar(x, y, yerr=0.2, fmt='o', color='black')`
8	Stacked Bar Plot	*bar() (stacked)*	x: Categories for the x-axis height: Heights of the bars bottom: The baseline for the bars color: Bar colors.	The bar() function can be used to create stacked bar plots by specifying the 'bottom' argument.	`plt.bar(categories, heights1, color='blue')` `plt.bar(categories, heights2, bottom=heights1, color='red')`

9	Heatmap	*imshow()*	X: 2D array of data cmap: Colormap for the heatmap aspect: Aspect ratio of the plot.	The imshow() function is used to display data as an image (heatmap).	`plt.imshow(data, cmap='hot', aspect='auto')`
10	Logarithmic Scale Plot	*semilogx() / semilogy() / loglog()*	x: Data for the x-axis y: Data for the y-axis base: Base of the logarithm color: Line color.	The semilogx(), semilogy(), and loglog() functions are used to create plots with logarithmic scales.	`plt.semilogx(x, y, color='green')`
11	Step Plot	*step()*	x: Data for the x-axis y: Data for the y-axis where: Define step positions ('pre', 'mid', 'post').	The step() function is used to create step plots.	`plt.step(x, y, where='mid', color='blue')`
12	Filled Area Plot	*fill_between()*	x: Data for the x-axis y1: Lower boundary y2: Upper boundary color: Fill color alpha: Transparency.	The fill_between() function is used to fill the area between two curves or boundaries.	`plt.fill_between(x, y1, y2, color='gray', alpha=0.5)`