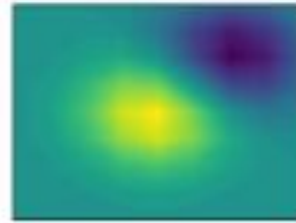
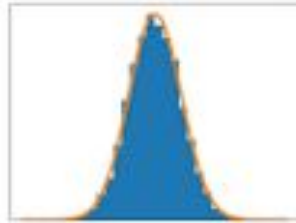


Matplotlib



What is Matplotlib?

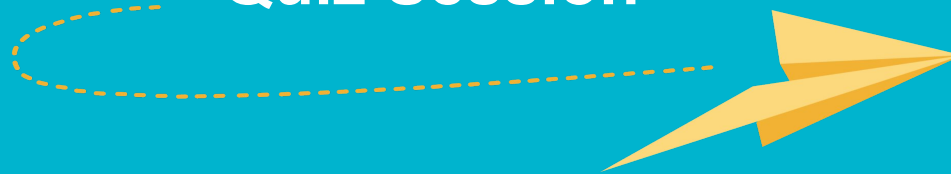
Matplotlib is a comprehensive library for creating static, animated, and interactive visualizations in Python.



What is Matplotlib?

- ❖ It has a module named **pyplot** that makes things easy for plotting by providing feature to control line styles, font properties, formatting axis, etc
- ❖ It support a wide variety of graph and plot, such as histogram, bar chart, power spectra, error chart, etc

Quiz Session



What command is used to import the Matplotlib library..?

Why Data Visualization is Important

Human brain naturally understand information much **easier** and **faster** when in it is visualize properly.

Anatomy of Figure

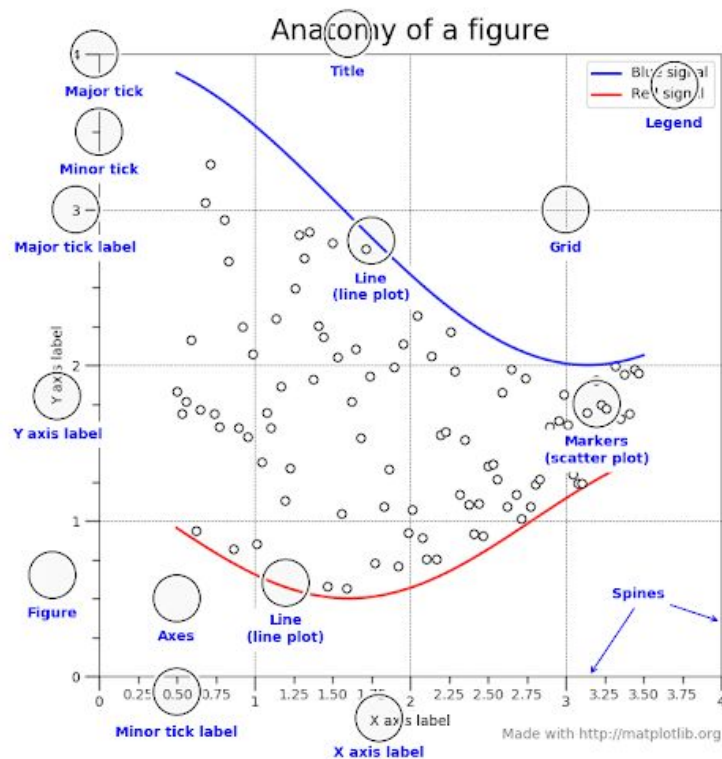
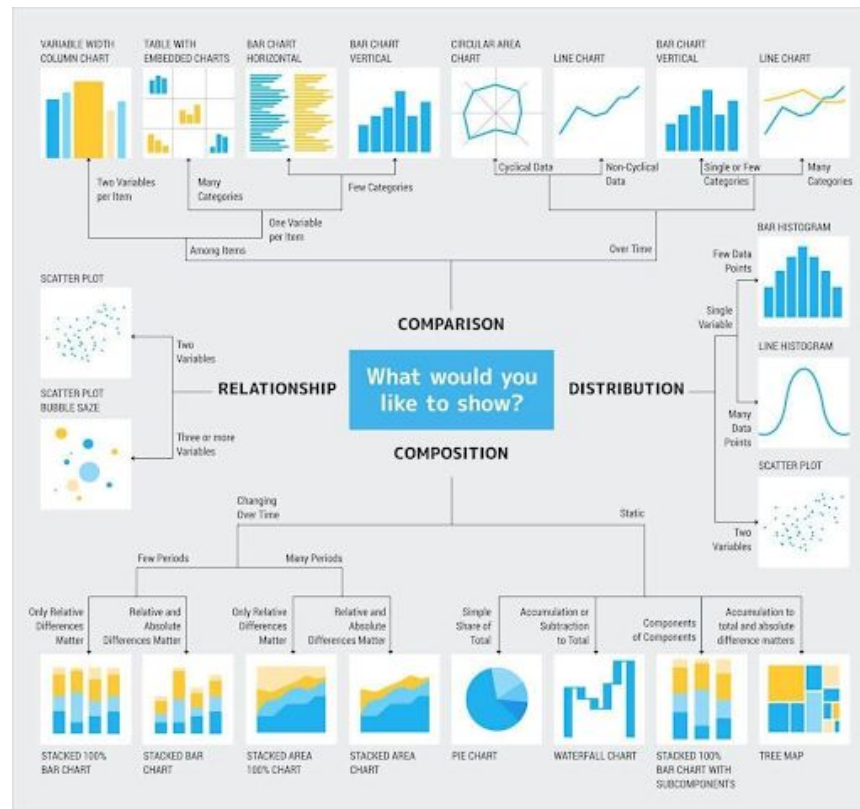


Chart Suggestions

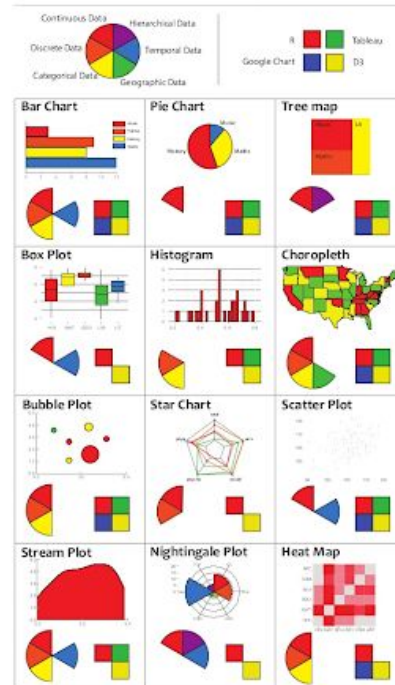


Chart



A Family Tree of Graph Types

This visualization shows to types of graphs that are commonly used in information visualization. You can see an example of each type, what types of data it can hold, and using what tools you can use to create them.

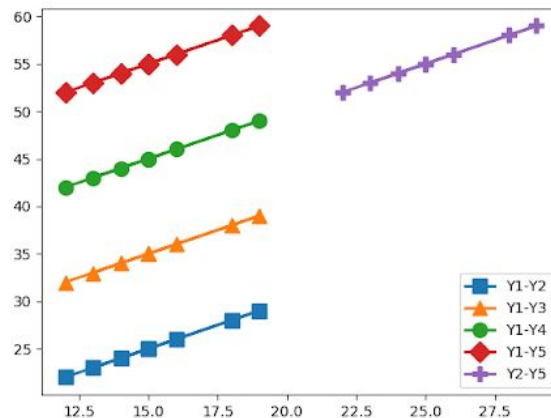


Created by: Kai Li | <https://kai.li.us>

Format Strings

A format string consists of a part for color, marker and line:

```
fmt = '[marker][line][color]'
```



Format Strings

Markers

character	description
'.'	point marker
','	pixel marker
'o'	circle marker
'v'	triangle_down marker
'^'	triangle_up marker
'<'	triangle_left marker
'>'	triangle_right marker
'1'	tri_down marker
'2'	tri_up marker
'3'	tri_left marker
'4'	tri_right marker
's'	square marker
'p'	pentagon marker
'*'	star marker
'h'	hexagon1 marker
'H'	hexagon2 marker
'+'	plus marker
'x'	x marker
'D'	diamond marker
'd'	thin_diamond marker
' '	vline marker
'_'	hline marker

Line Styles

character	description
'-'	solid line style
'--'	dashed line style
'-.'	dash-dot line style
':'	dotted line style

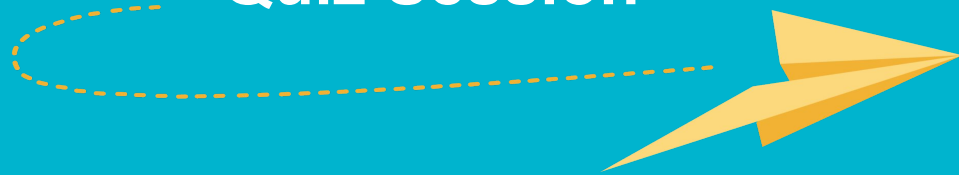
Colors

The supported color abbreviations are the single letter codes

character	color
'b'	blue
'g'	green
'r'	red
'c'	cyan
'm'	magenta
'y'	yellow
'k'	black
'w'	white

If the color is the only part of the format string, you can additionally use any `matplotlib.colors` spec, e.g. full names ('green') or hex strings ('#008000').

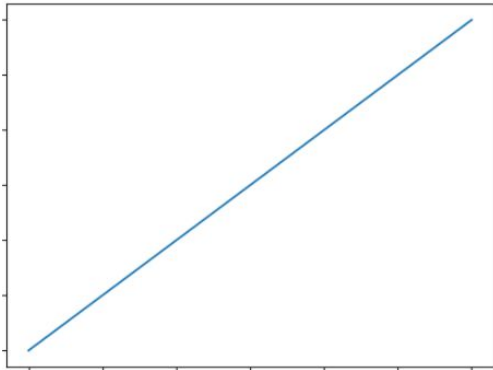
Quiz Session



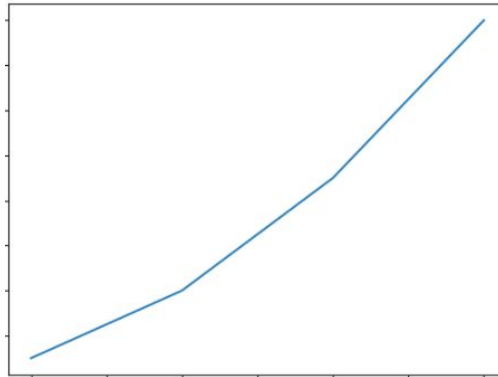
Quiz

What is output graft from this code ?

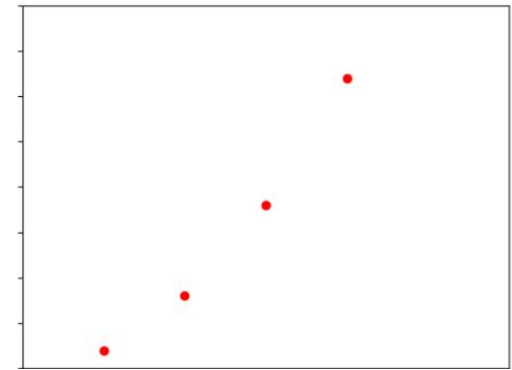
```
import matplotlib.pyplot as plt  
plt.plot([1, 2, 3, 4])  
plt.ylabel('some numbers')  
plt.show()
```



A



B



C



Indonesia AI
AI for Everyone, AI for Indonesia

Terima Kasih!

[Indonesia AI | AI for Everyone, AI for Indonesia](https://IndonesiaAI.org)

contact@aiforindonesia.org