

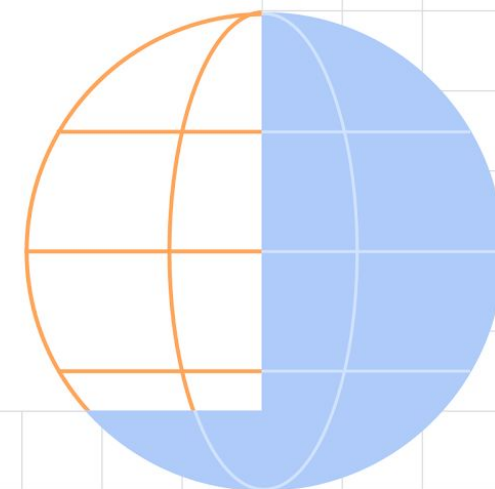


# Data science Track

## Data Visualization



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@ DSC Assiut



# DATA VISUALIZATION





# What is data visualization

## why is it needed



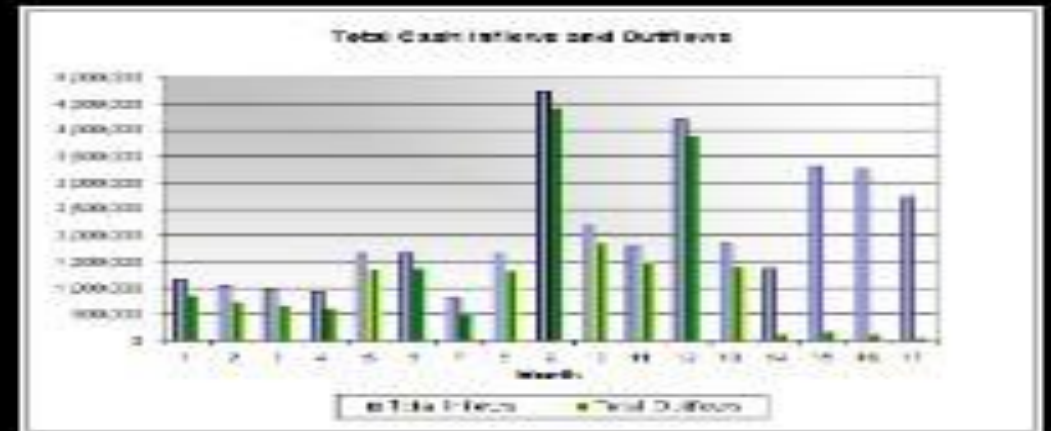


**WHEN DATA IS IN TABLE FORM**

ID	NAME	CLASS	MARK	SEX
1	John Doe	Four	75	female
2	Max Ruhn	Three	85	male
3	Arnold	Three	90	male
4	Krish Star	Four	80	female
5	John Mike	Four	60	female
6	Alex John	Four	55	male
7	Milly John Rob	Fifth	78	male
8	Arnold	Five	85	male
9	Tes Cry	Six	79	male
10	Big John	Four	55	female



**WHEN DATA IS IN PLOT**



imgflip.com



# Python



**Plotting data with Python :-**

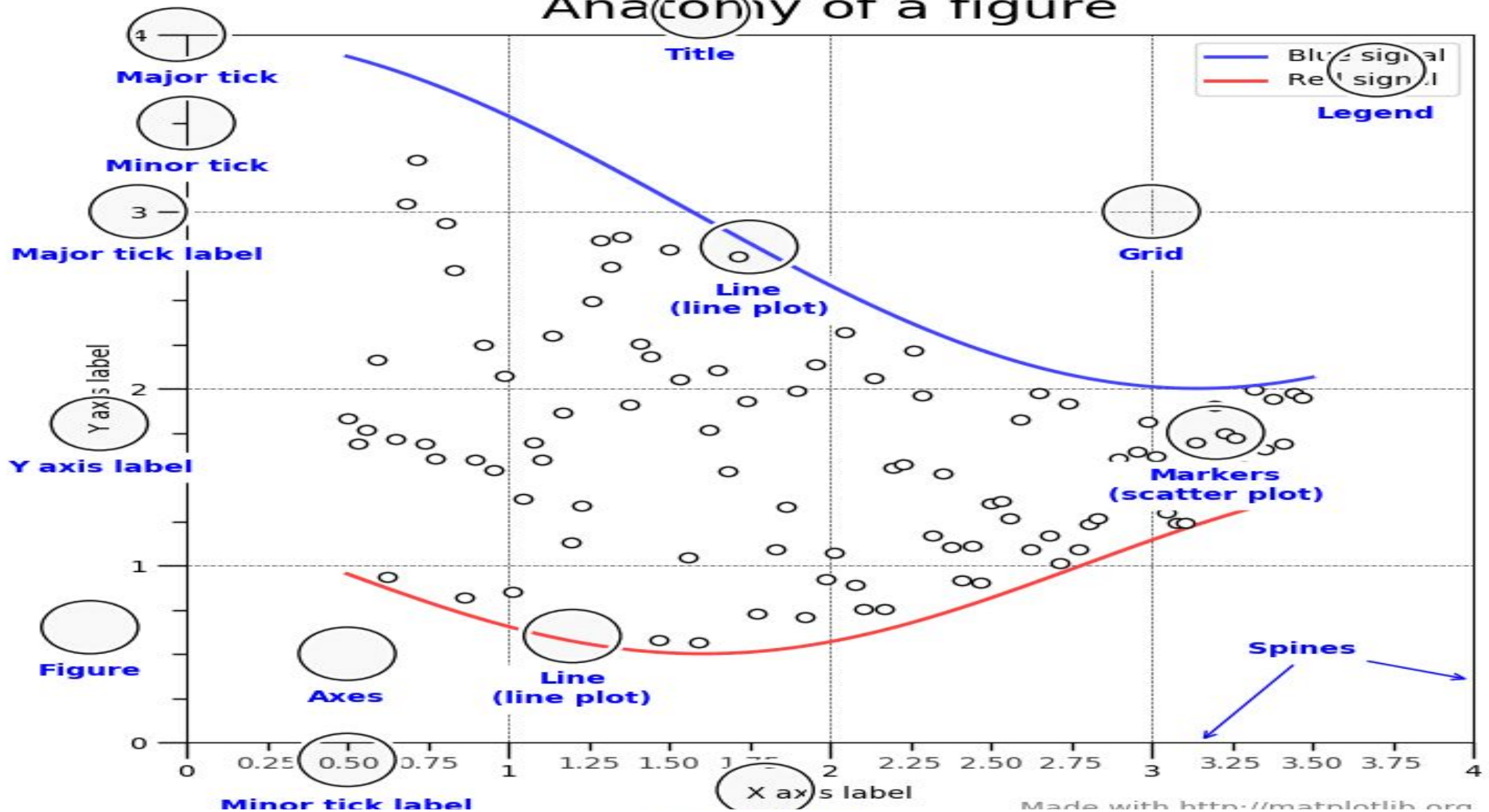
- Matplotlib
- Seaborn

# Matplotlib Architecture

There are overall 3 different layers in the architecture of matplotlib as follows.

- **Backend layer.**
- **Artist layer.**
- **Scripting layer.**

# Anatomy of a figure



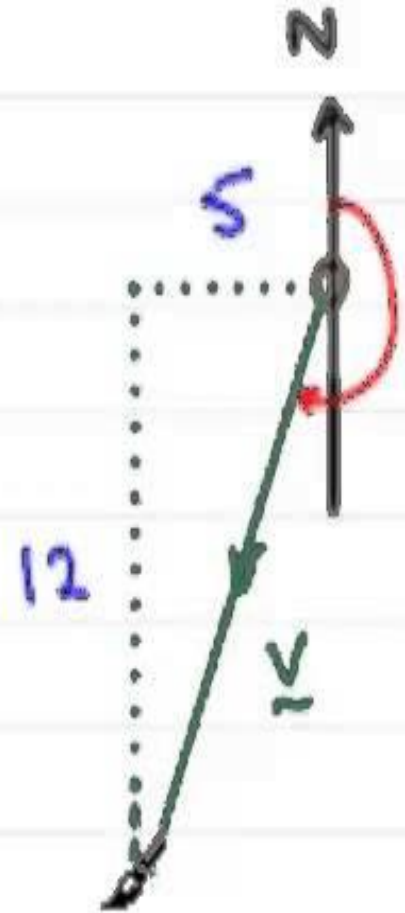
$$\text{let } \underline{v} = -5\underline{i} - 12\underline{j}$$

$$\text{speed} = |\underline{v}|$$

$$= \sqrt{5^2 + 12^2}$$

$$= \sqrt{169}$$

$$= 13 \text{ ms}^{-1}$$



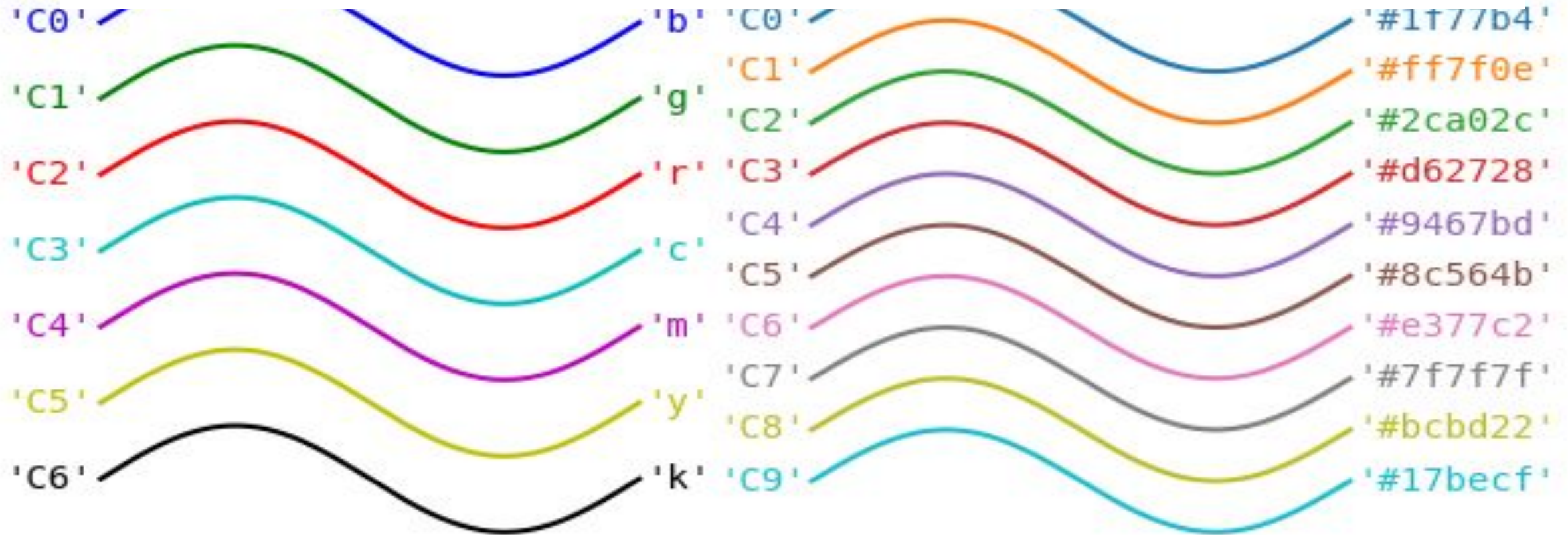
Bearing:



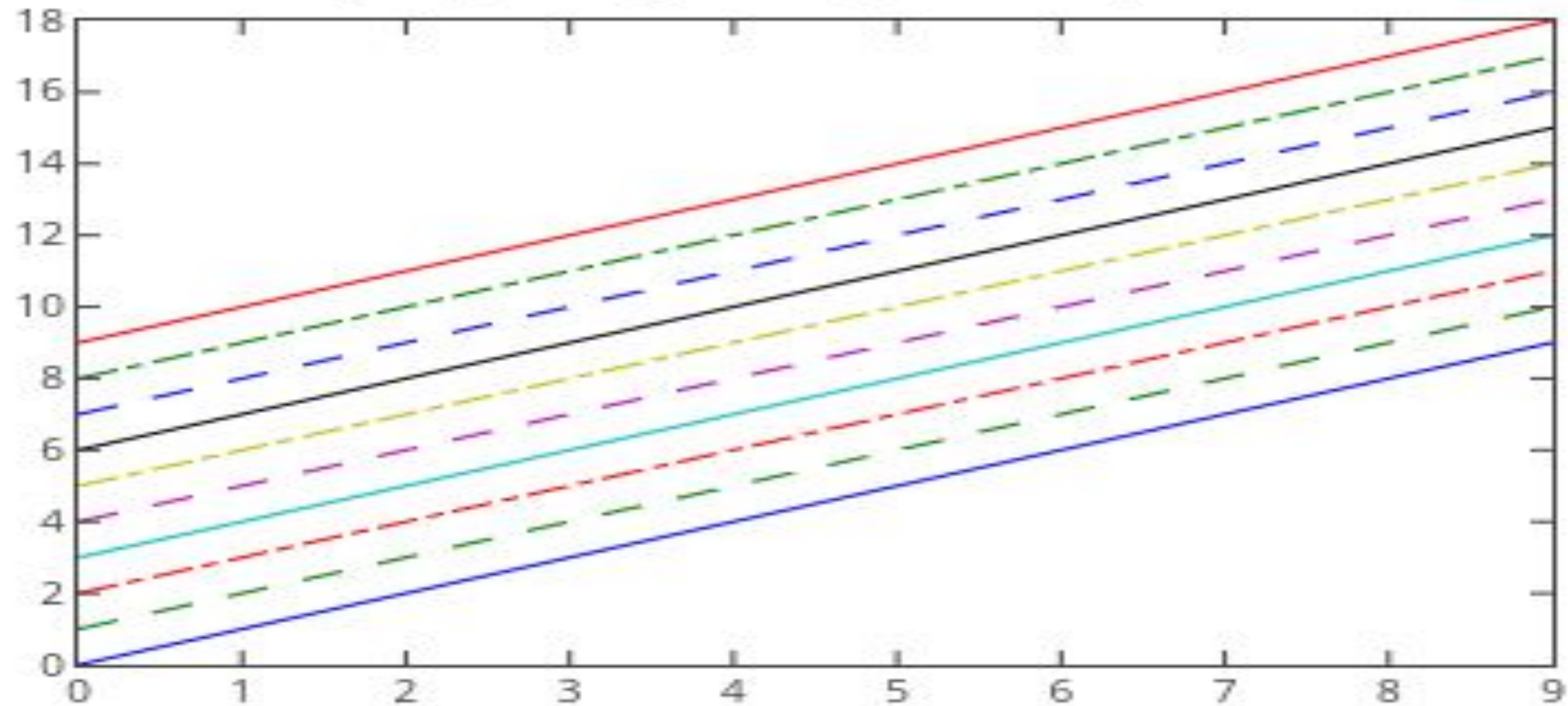
# Colors

classic

v2.0



## Cycling through line styles in matplotlib



# Any Questions



**Remember That**  
**#U\_are\_Our\_mission**



# Thank You!

