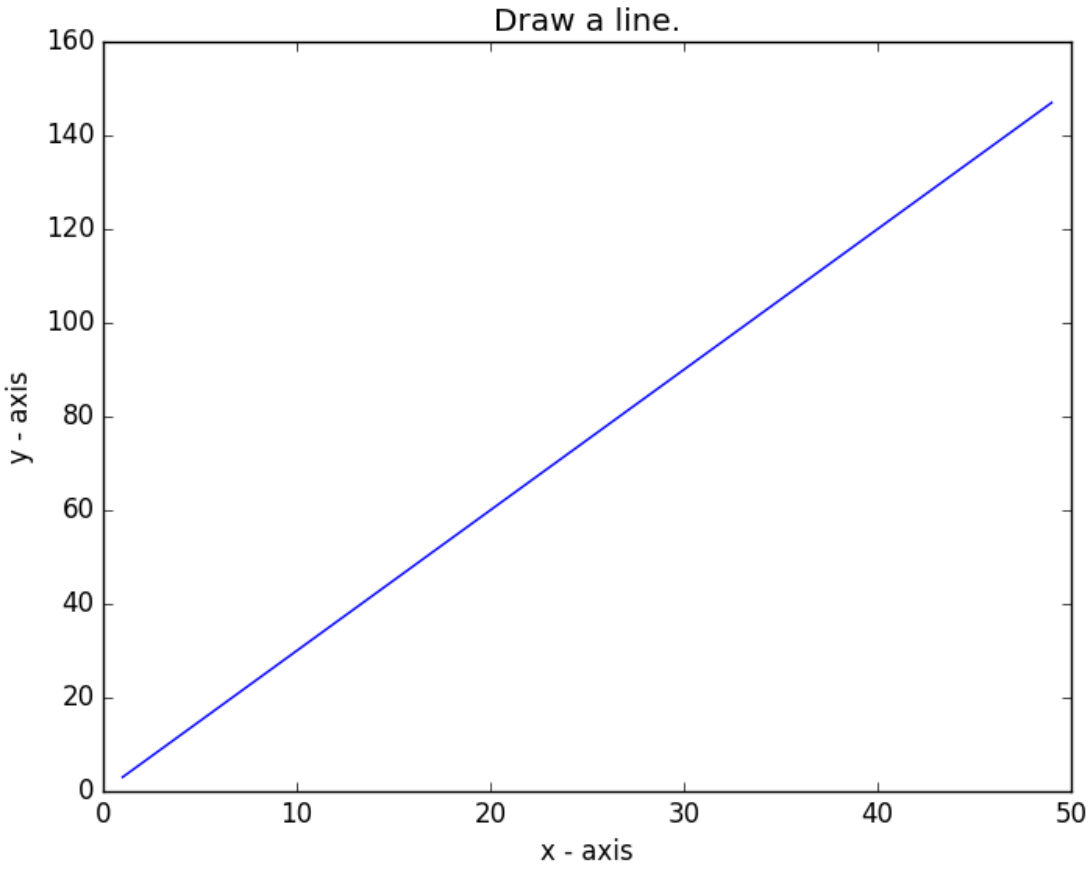
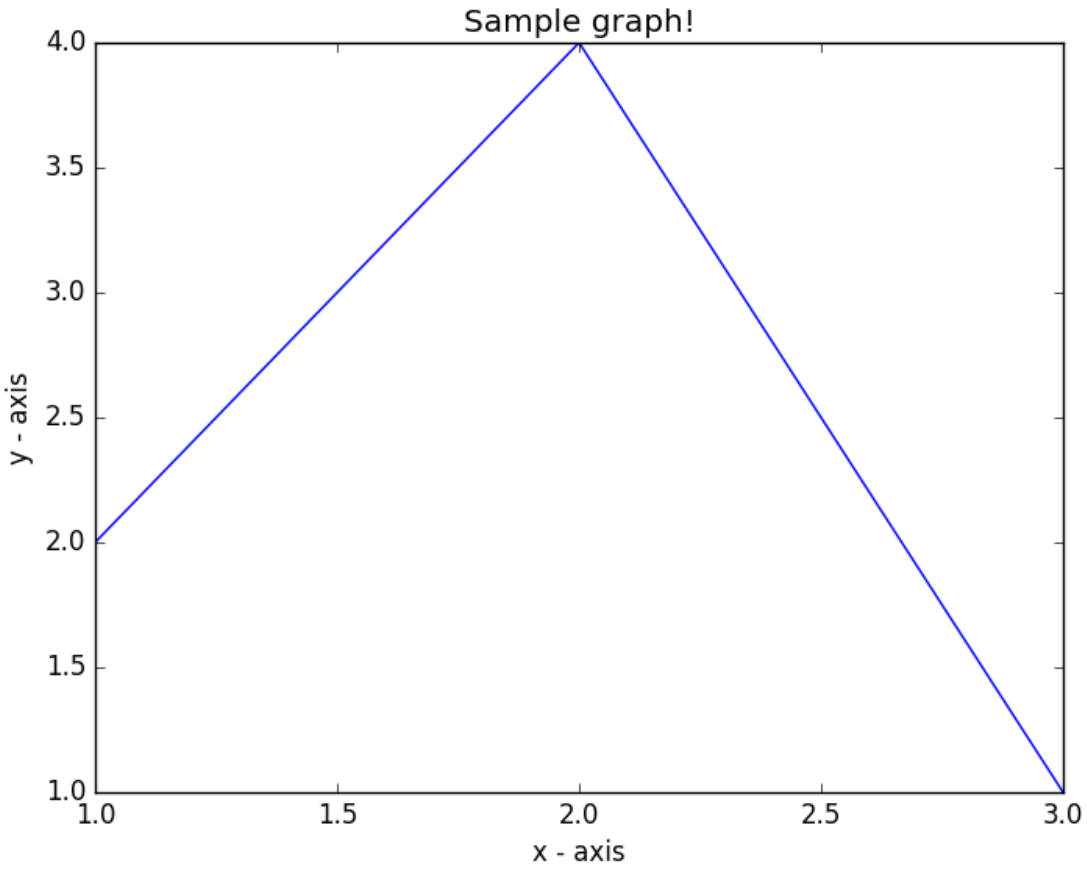
Matplotlib Exercises - 1

1. Write a Python program to draw a line with suitable label in the x axis, y axis and a title.
The code snippet gives the output shown in the following screenshot:

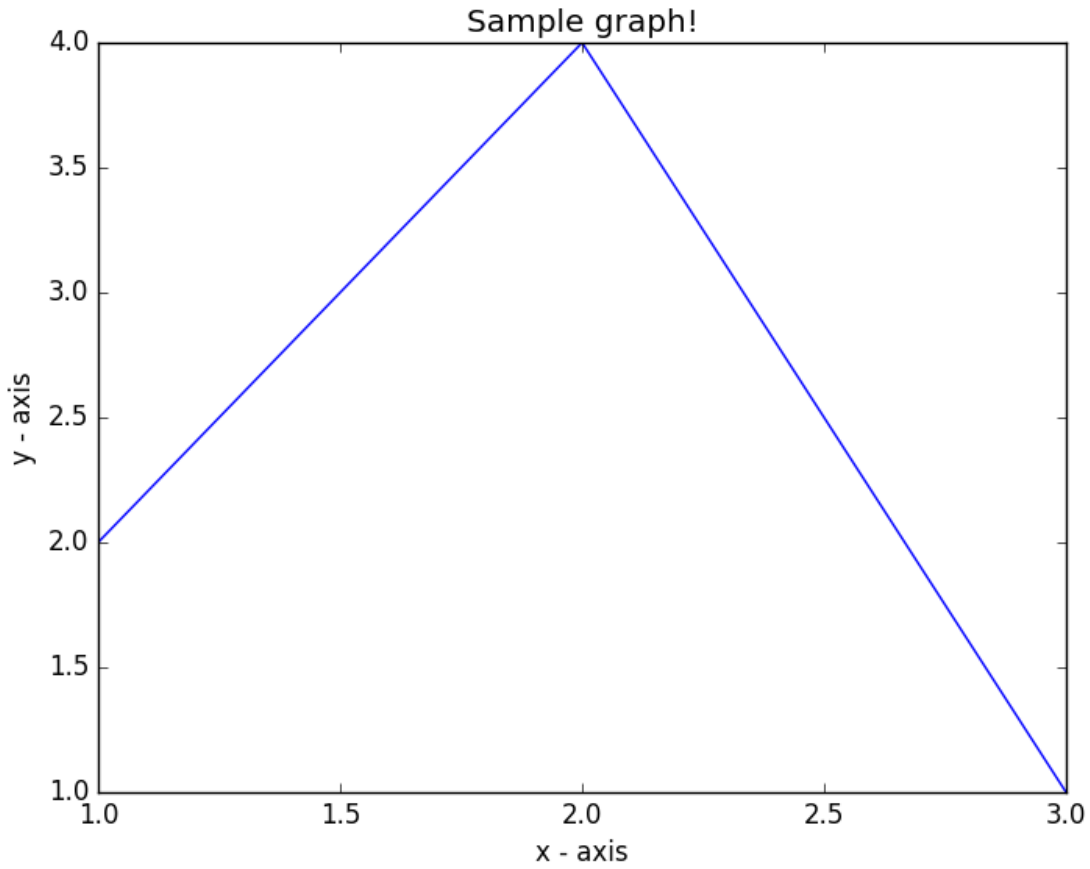


2. Write a Python program to draw a line using given axis values with suitable label in the x axis , y axis and a title.
The code snippet gives the output shown in the following screenshot:



3. Write a Python program to draw a line using given axis values taken from a text file, with suitable label in the x axis, y axis and a title.

Test Data: test.txt
1 2
2 4
3 1
The code snippet gives the output shown in the following screenshot:

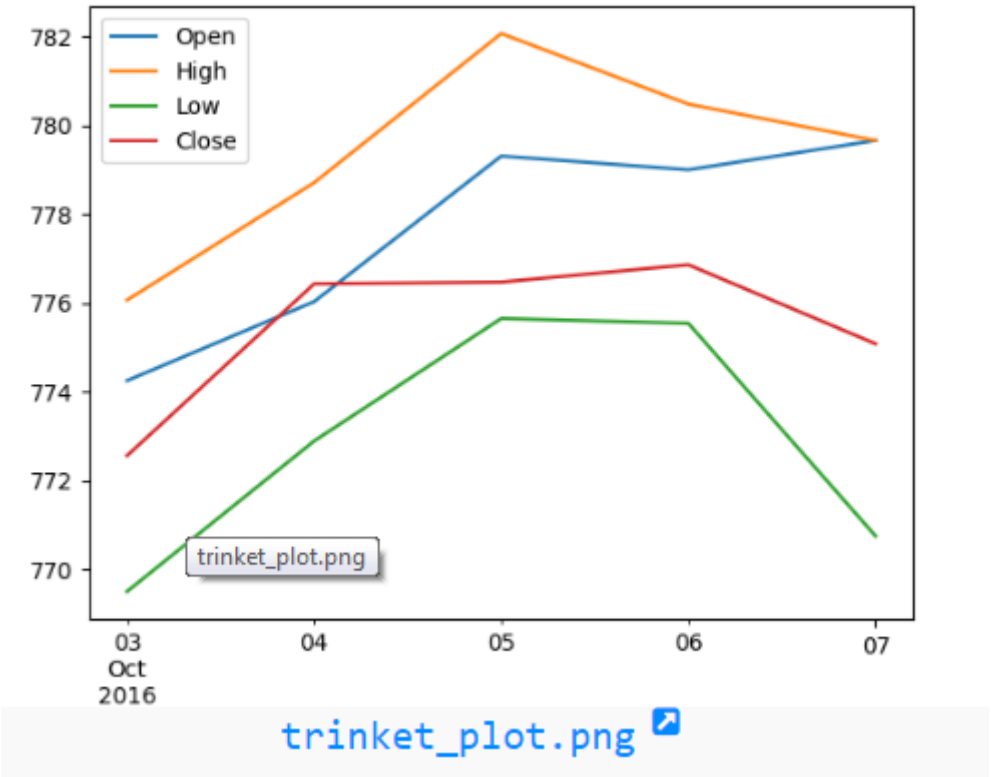


4. Write a Python program to draw line charts of the financial data of Alphabet Inc. between October 3, 2016 to October 7, 2016.

Sample Financial data (fdata.csv):

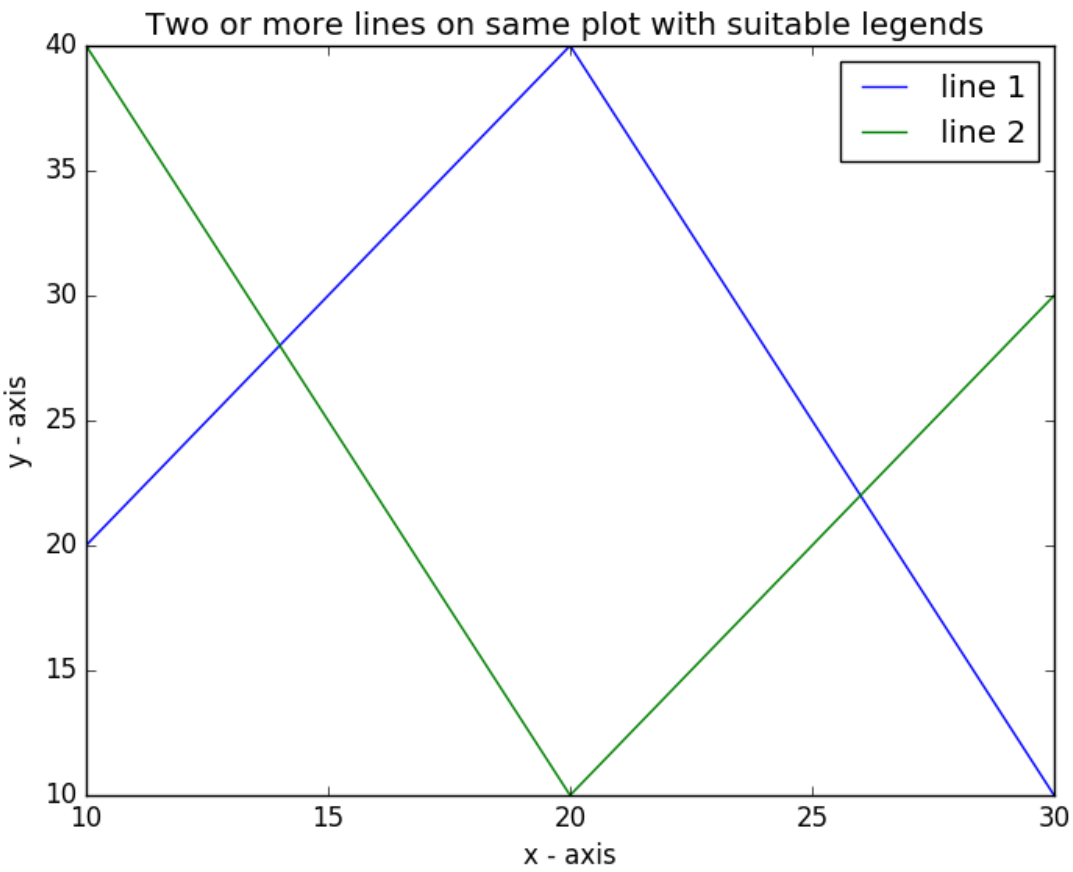
Date,Open,High,Low,Close
10-03-16,774.25,776.065002,769.5,772.559998
10-04-16,776.030029,778.710022,772.890015,776.429993
10-05-16,779.309998,782.070007,775.650024,776.469971
10-06-16,779,780.47998,775.539978,776.859985
10-07-16,779.659973,779.659973,770.75,775.080017

The code snippet gives the output shown in the following screenshot:

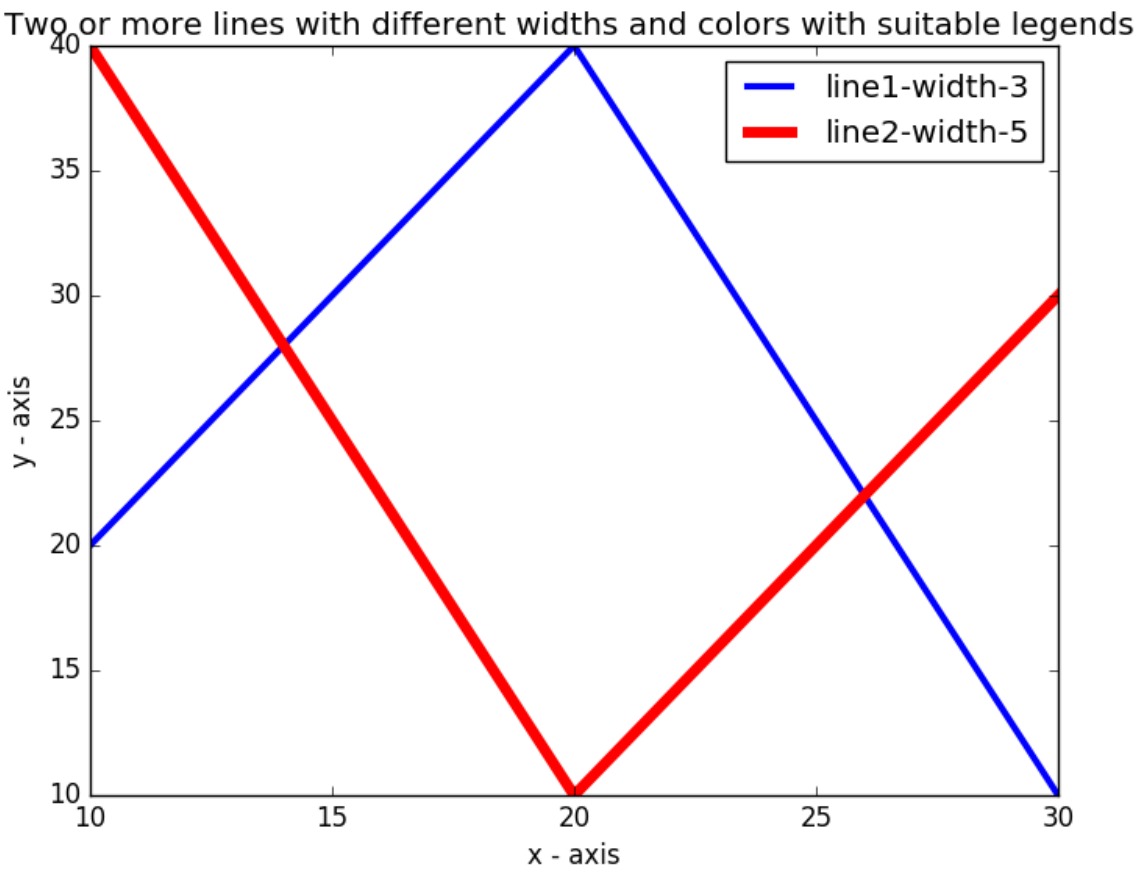


trinket_plot.png

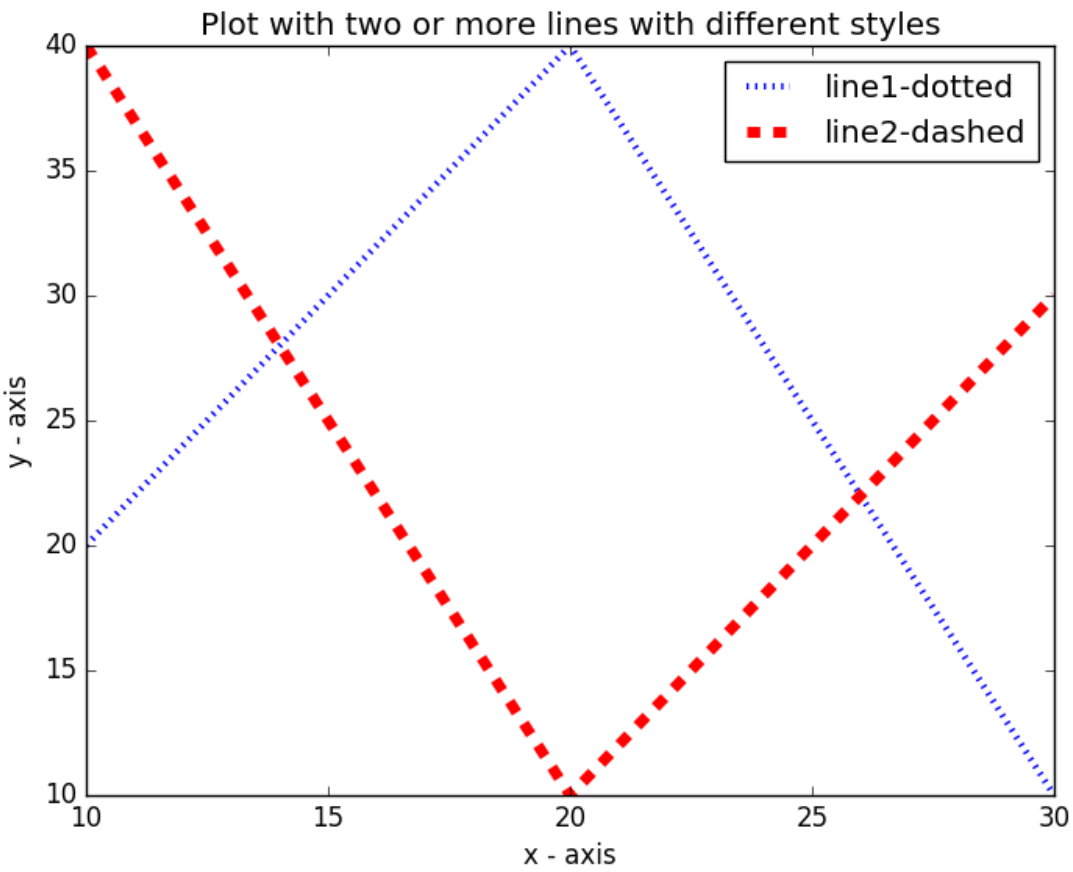
5. Write a Python program to plot two or more lines on same plot with suitable legends of each line.
The code snippet gives the output shown in the following screenshot:



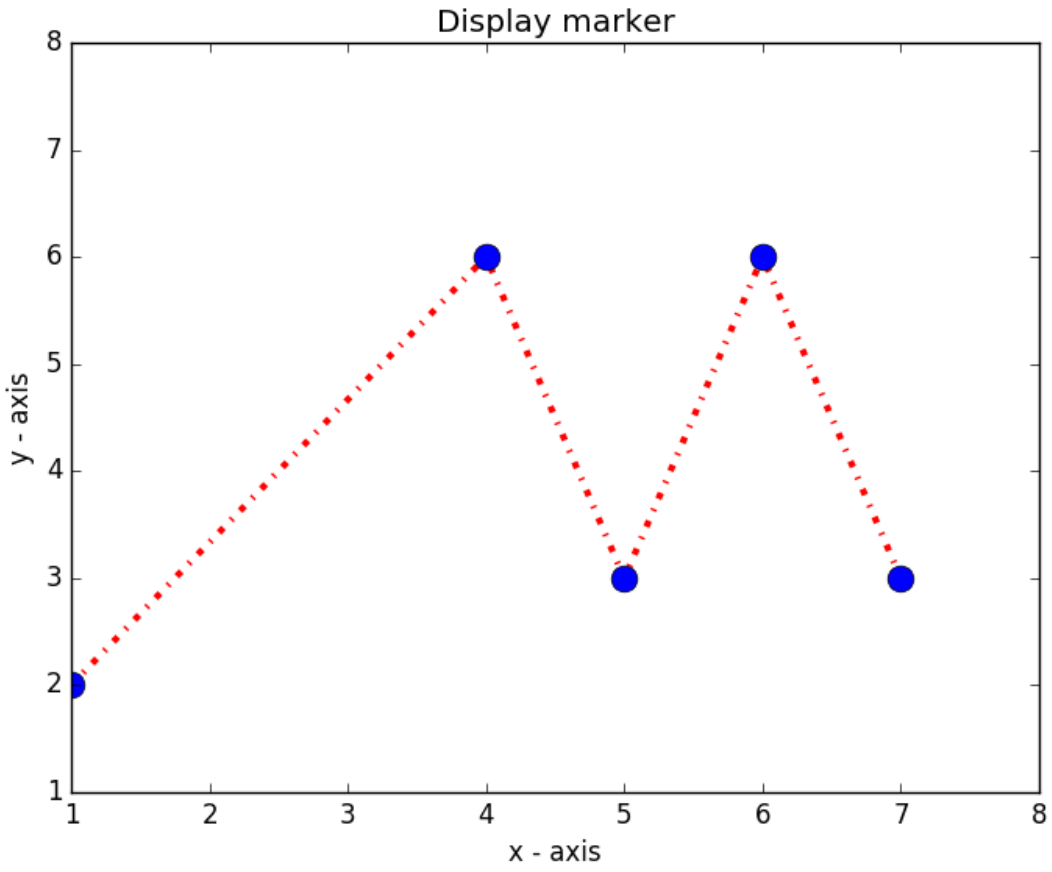
6. Write a Python program to plot two or more lines with legends, different widths and colors.
The code snippet gives the output shown in the following screenshot:



7. Write a Python program to plot two or more lines with different styles. The code snippet gives the output shown in the following screenshot:

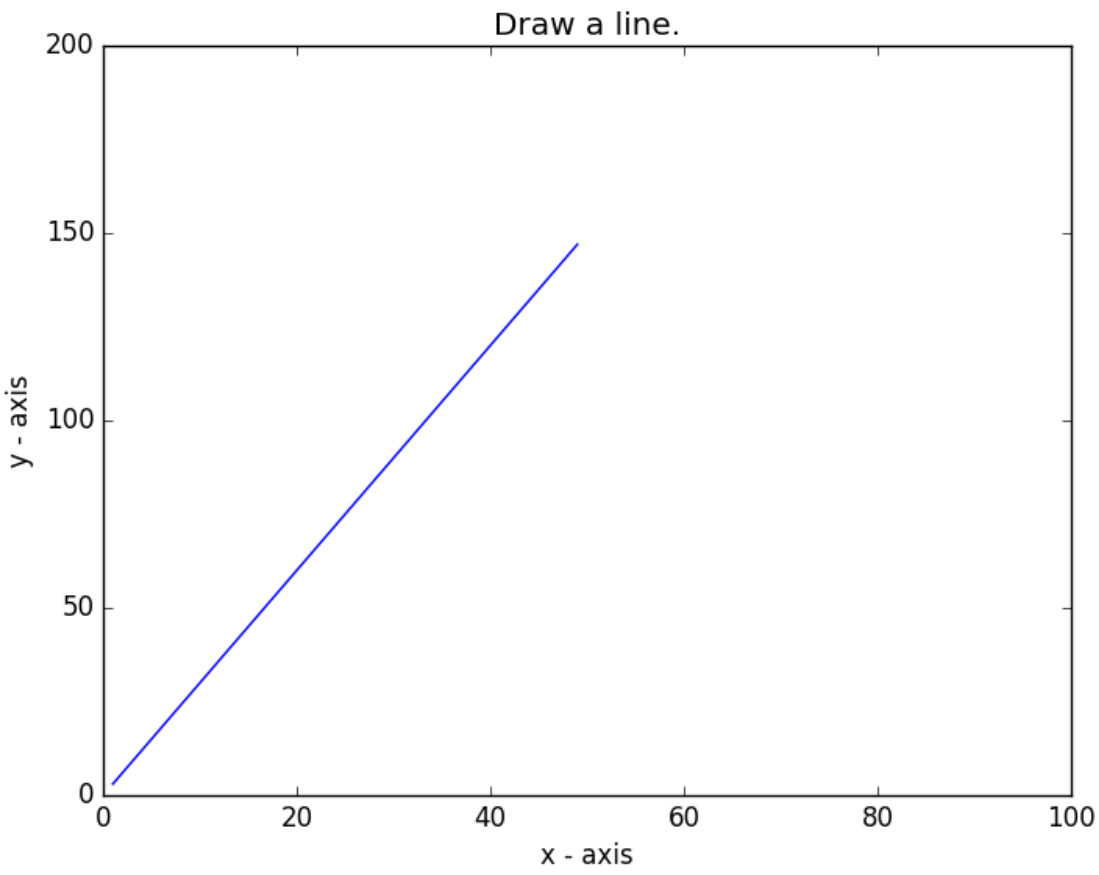


8. Write a Python program to plot two or more lines and set the line markers
The code snippet gives the output shown in the following screenshot:



9. Write a Python program to display the current axis limits values and set new axis values

The code snippet gives the output shown in the following screenshot:


Draw a line.
200
150
100
50
0
y - axis
0
20
40
60
80
100
x - axis

Matplotlib Exercises - 2

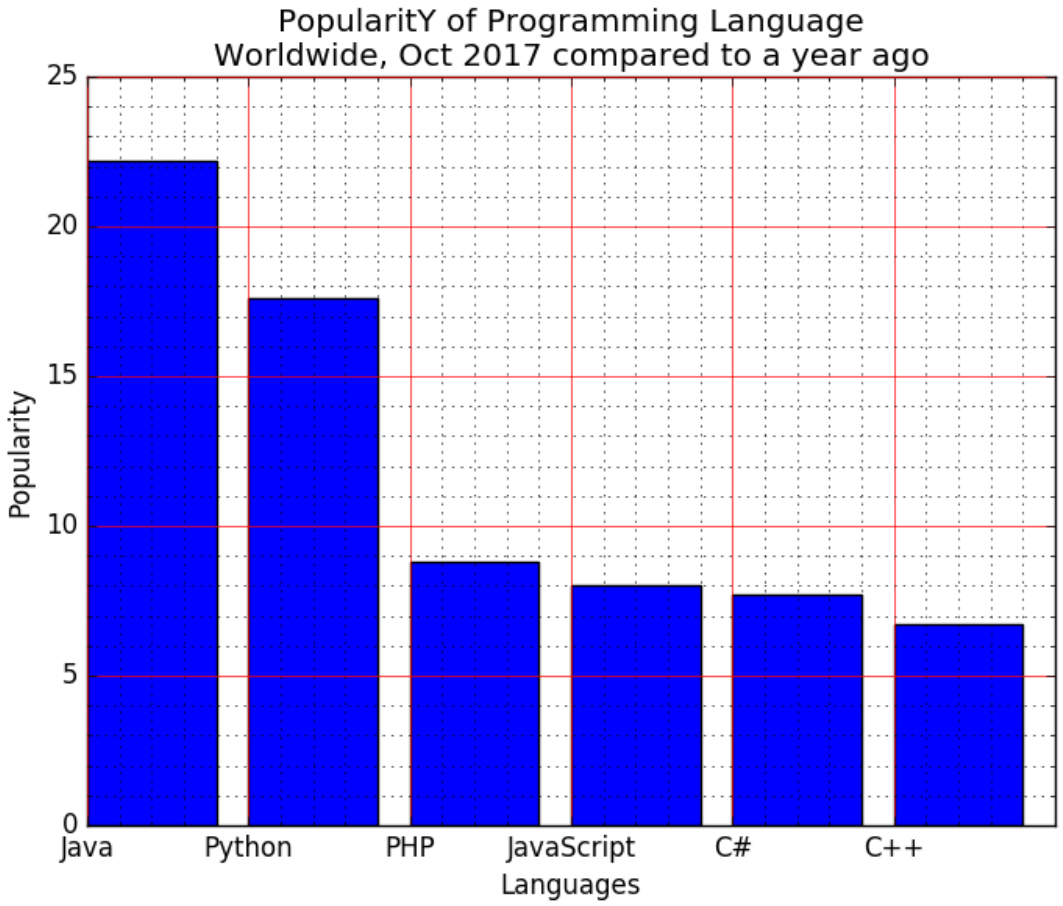
1. Write a Python programming to display a bar chart of the popularity of programming Languages.

Sample data:

Programming languages: Java, Python, PHP, JavaScript, C#, C++

Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

The code snippet gives the output shown in the following screenshot:



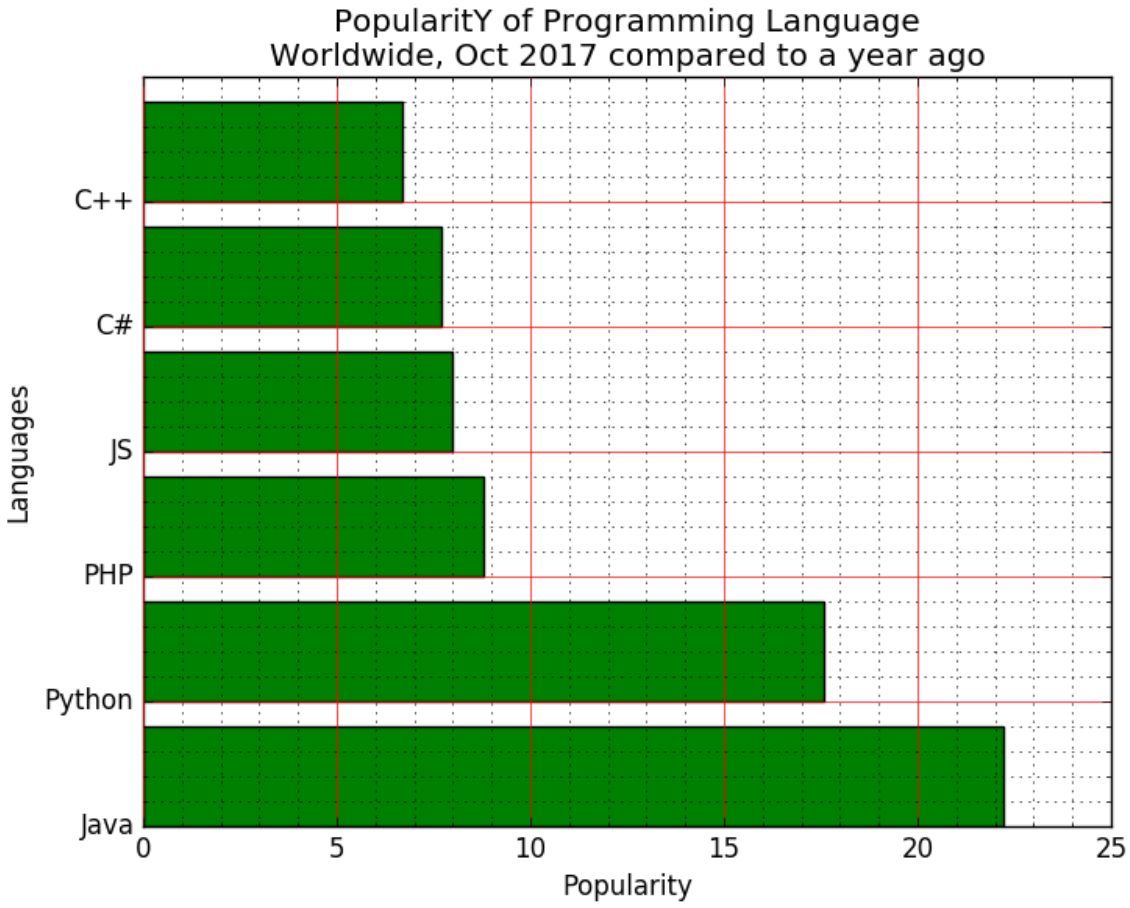
2. Write a Python programming to display a horizontal bar chart of the popularity of programming Languages.

Sample data:

Programming languages: Java, Python, PHP, JavaScript, C#, C++

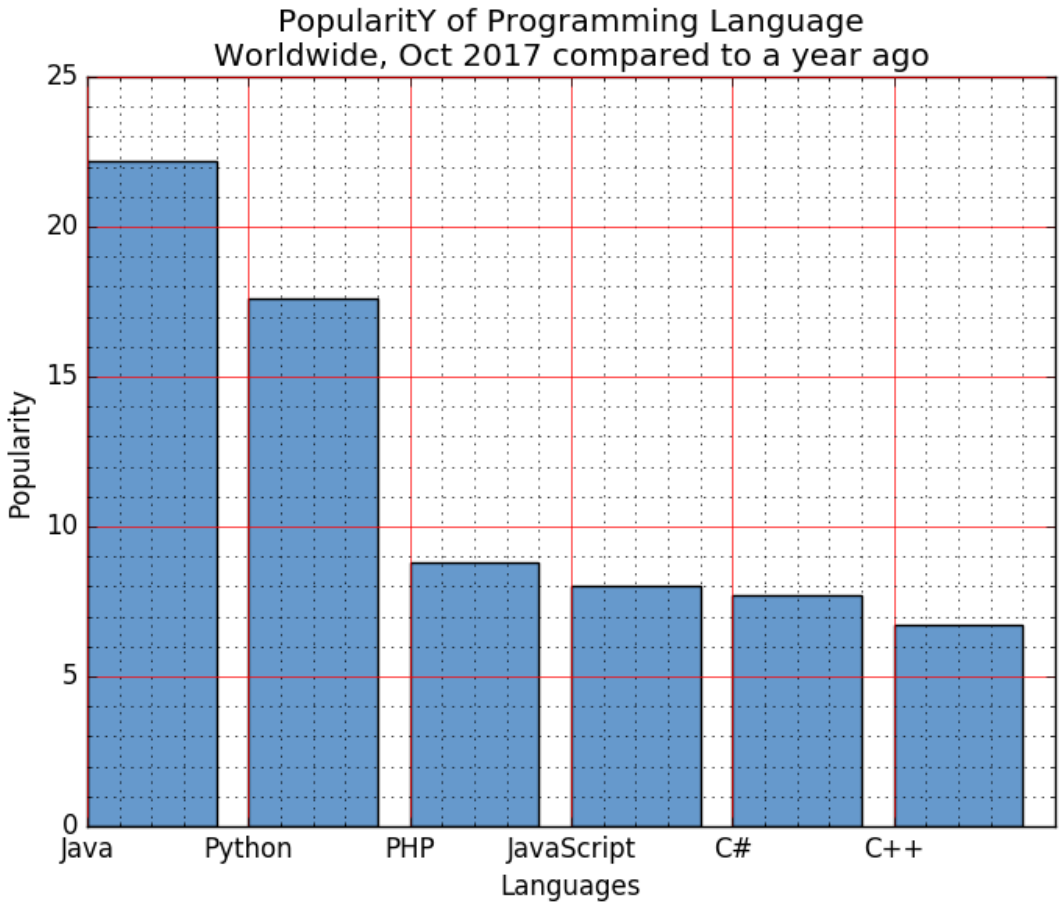
Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

The code snippet gives the output shown in the following screenshot:



3. Write a Python programming to display a bar chart of the popularity of programming Languages. Use uniform color.

Sample data:
Programming languages: Java, Python, PHP, JavaScript, C#, C++
Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7
The code snippet gives the output shown in the following screenshot:

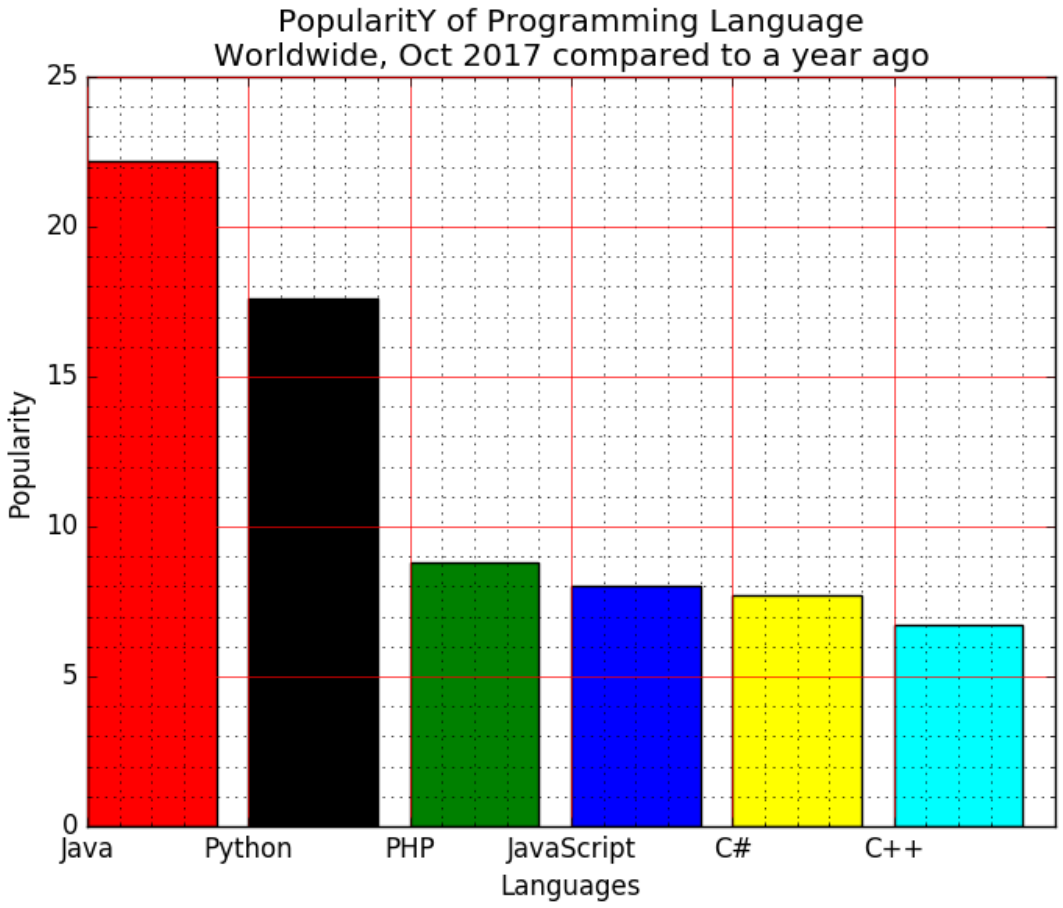


4. Write a Python programming to display a bar chart of the popularity of programming Languages. Use different color for each bar.

Sample data:

Programming languages: Java, Python, PHP, JavaScript, C#, C++

Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7



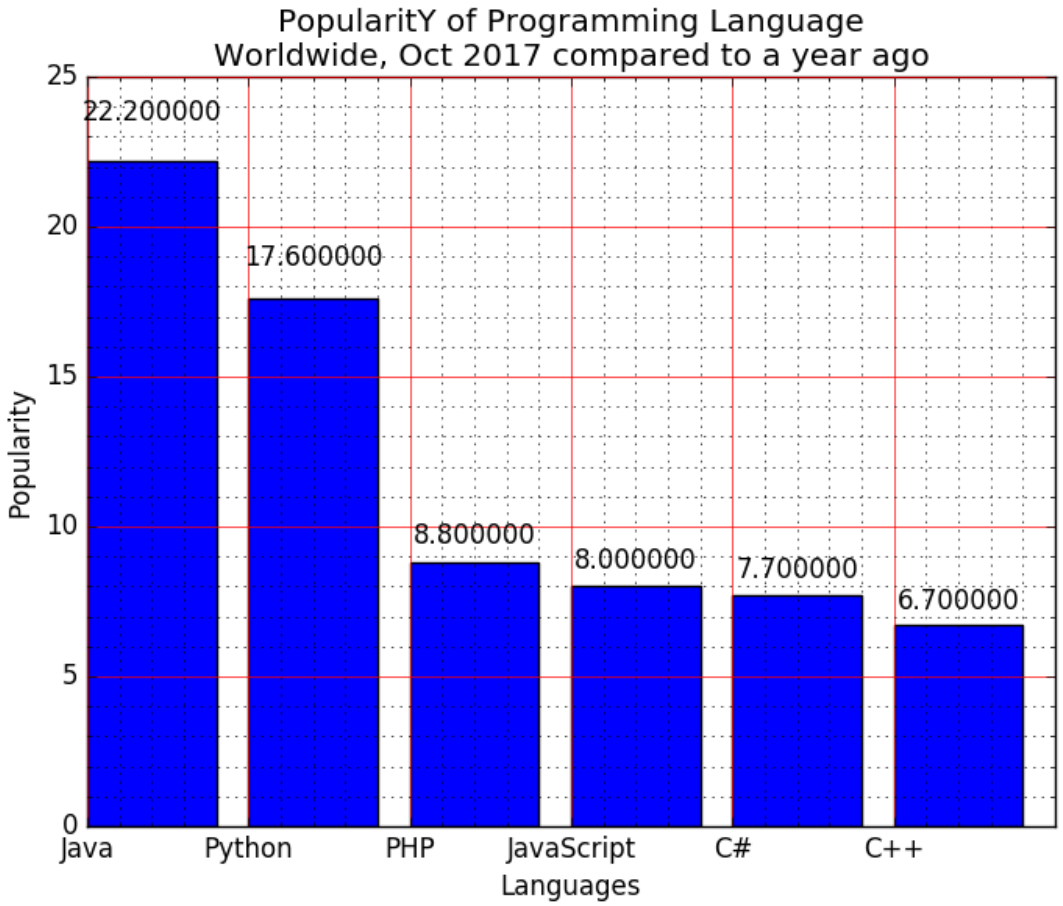
5. Write a Python programming to display a bar chart of the popularity of programming Languages. Attach a text label above each bar displaying its popularity (float value).

Sample data:

Programming languages: Java, Python, PHP, JavaScript, C#, C++

Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

The code snippet gives the output shown in the following screenshot:



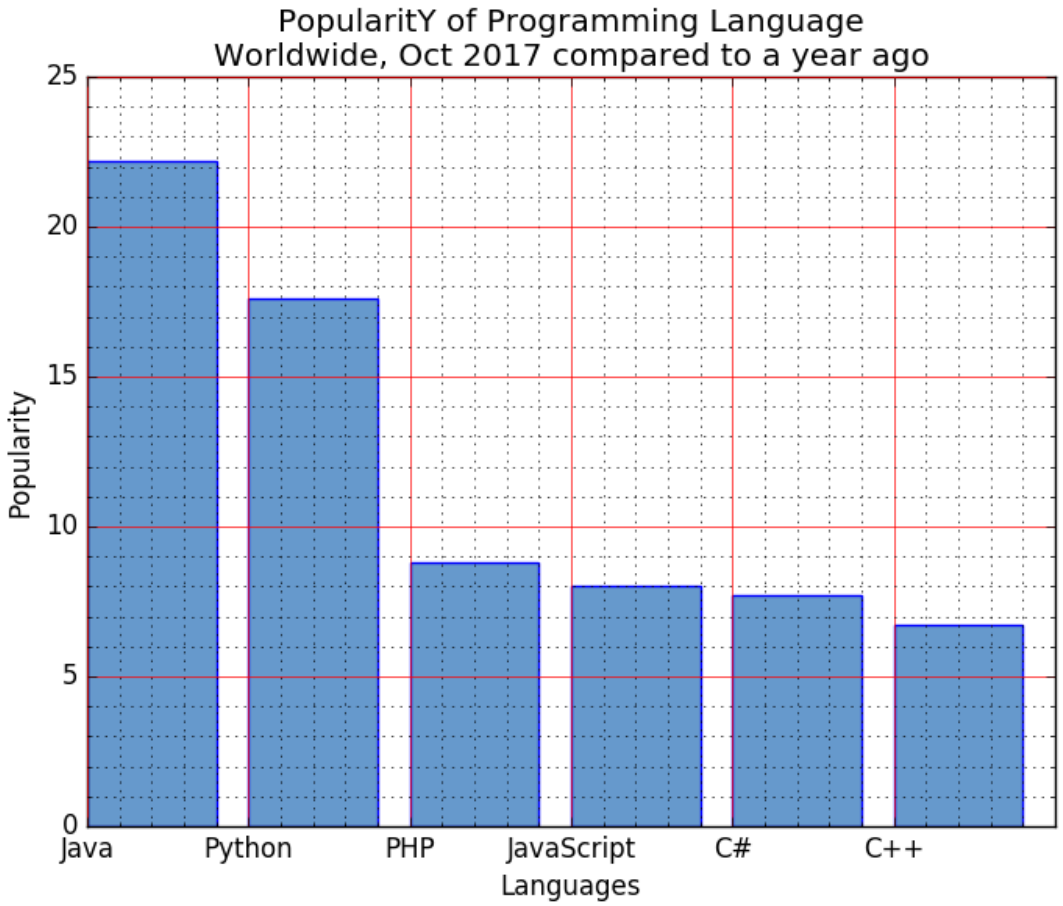
6. Write a Python programming to display a bar chart of the popularity of programming Languages. Make blue border to each bar.

Sample data:

Programming languages: Java, Python, PHP, JavaScript, C#, C++

Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

The code snippet gives the output shown in the following screenshot:



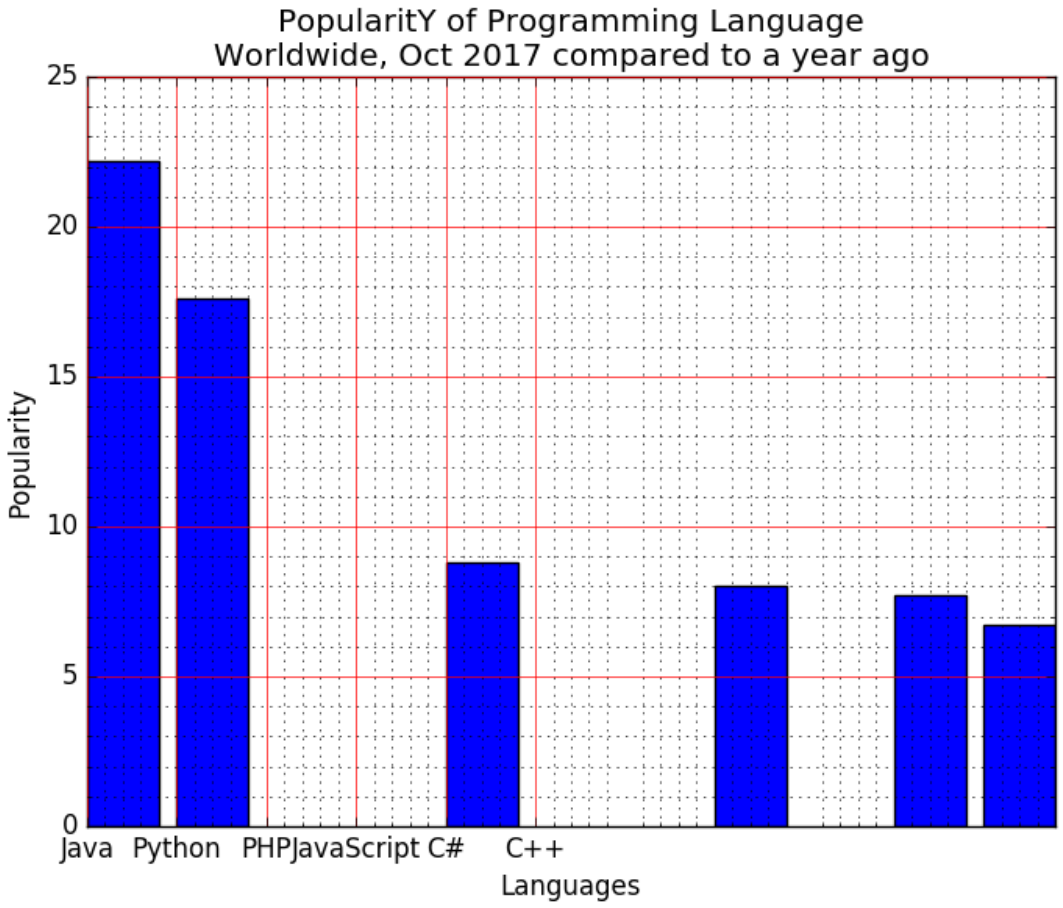
7. Write a Python programming to display a bar chart of the popularity of programming Languages. Specify the position of each bar plot.

Sample data:

Programming languages: Java, Python, PHP, JavaScript, C#, C++

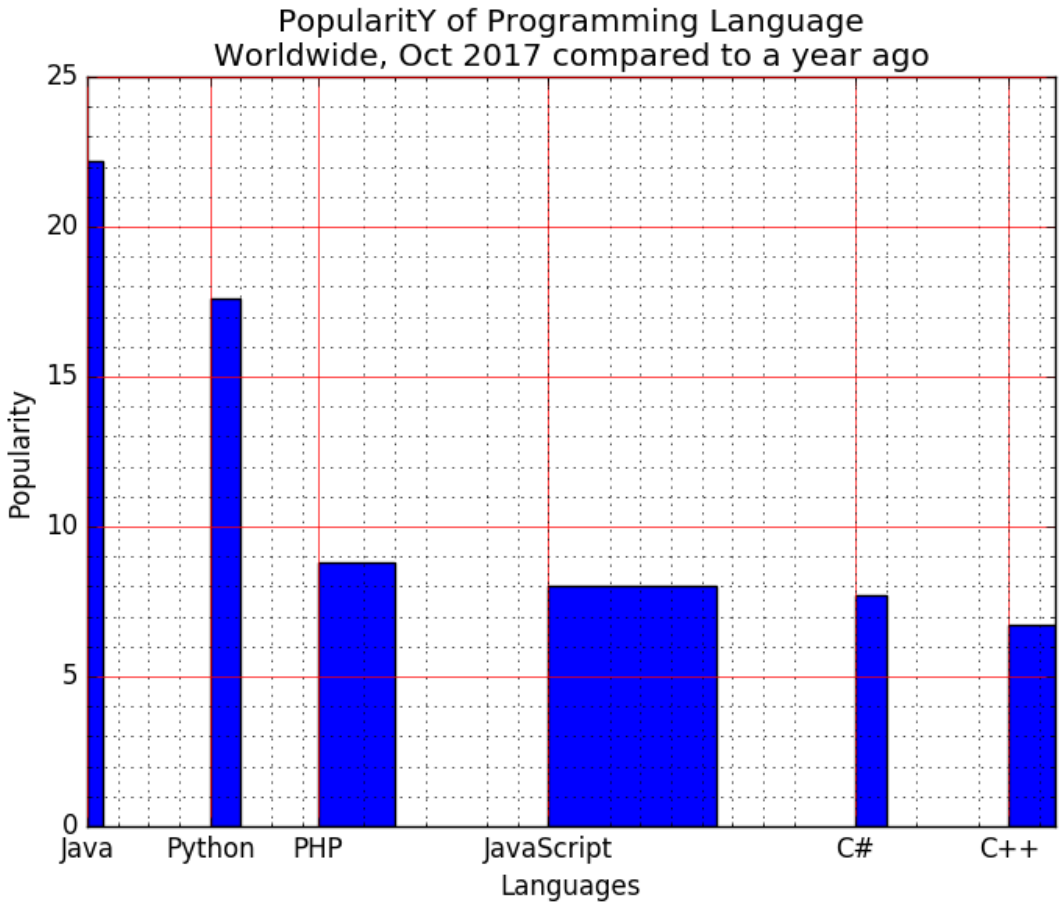
Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

The code snippet gives the output shown in the following screenshot:



8. Write a Python programming to display a bar chart of the popularity of programming Languages. Select the width of each bar and their positions.

Sample data:
Programming languages: Java, Python, PHP, JavaScript, C#, C++
Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7
The code snippet gives the output shown in the following screenshot:



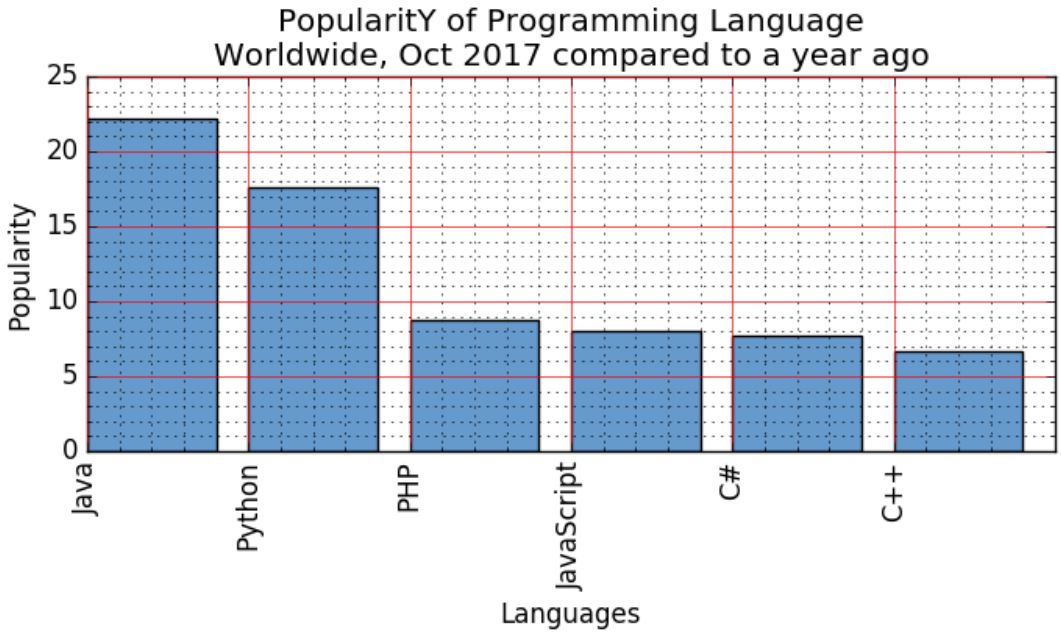
9. Write a Python programming to display a bar chart of the popularity of programming Languages. Increase bottom margin.

Sample data:

Programming languages: Java, Python, PHP, JavaScript, C#, C++

Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

The code snippet gives the output shown in the following screenshot:



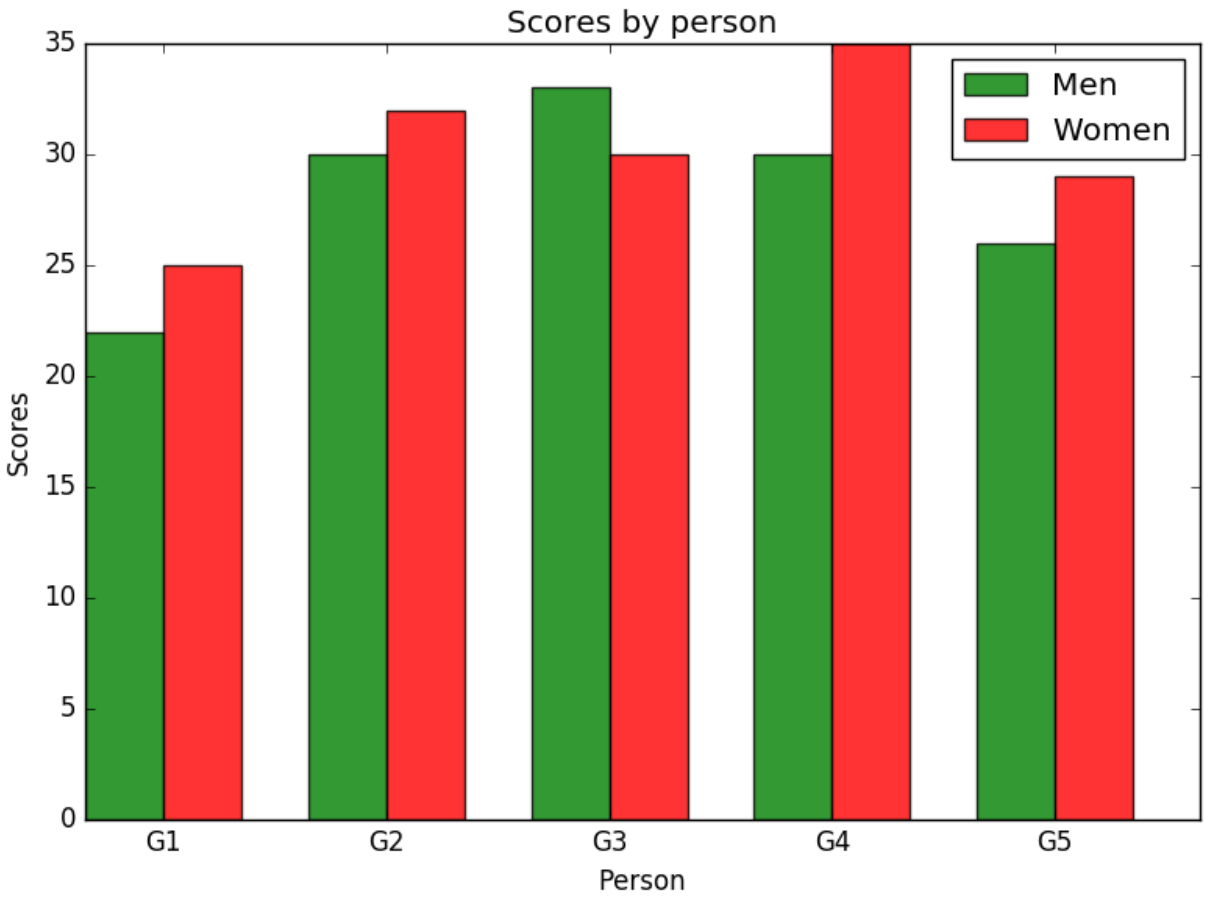
10. Write a Python program to create bar plot of scores by group and gender. Use multiple X values on the same chart for men and women.

Sample Data:

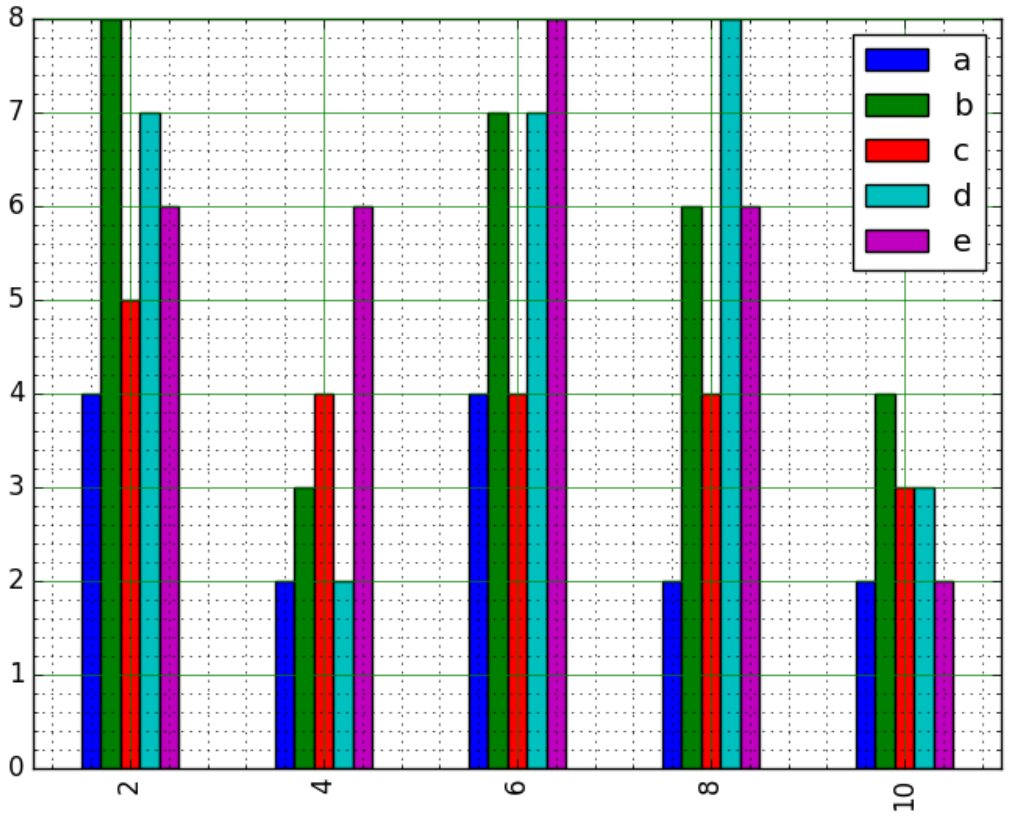
Means (men) = (22, 30, 35, 35, 26)

Means (women) = (25, 32, 30, 35, 29)

The code snippet gives the output shown in the following screenshot:



11. Write a Python program to create bar plot from a DataFrame.
Sample Data Frame:
a b c d e
2 4,8,5,7,6
4 2,3,4,2,6
6 4,7,4,7,8
8 2,6,4,8,6
10 2,4,3,3,2
The code snippet gives the output shown in the following screenshot:



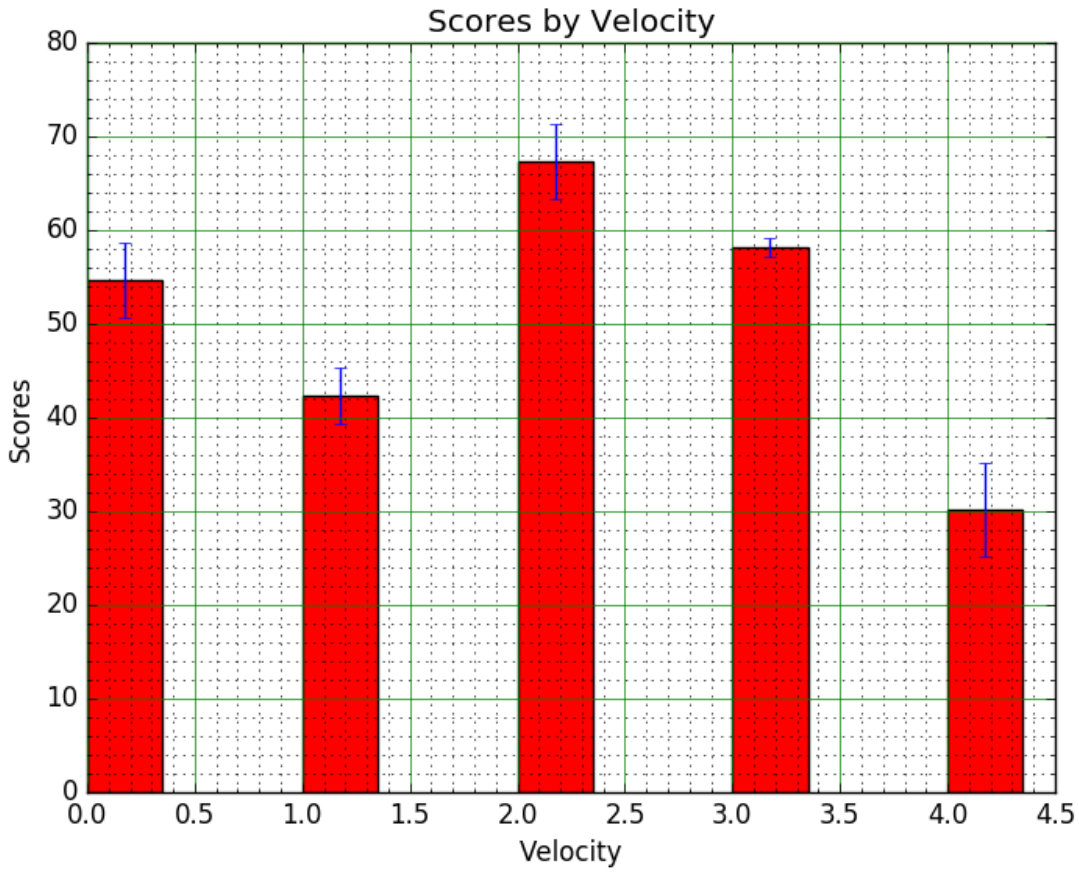
12. Write a Python program to create bar plots with error bars on the same figure.

Sample Date

Mean velocity: 0.2474, 0.1235, 0.1737, 0.1824

Standard deviation of velocity: 0.3314, 0.2278, 0.2836, 0.2645

The code snippet gives the output shown in the following screenshot:



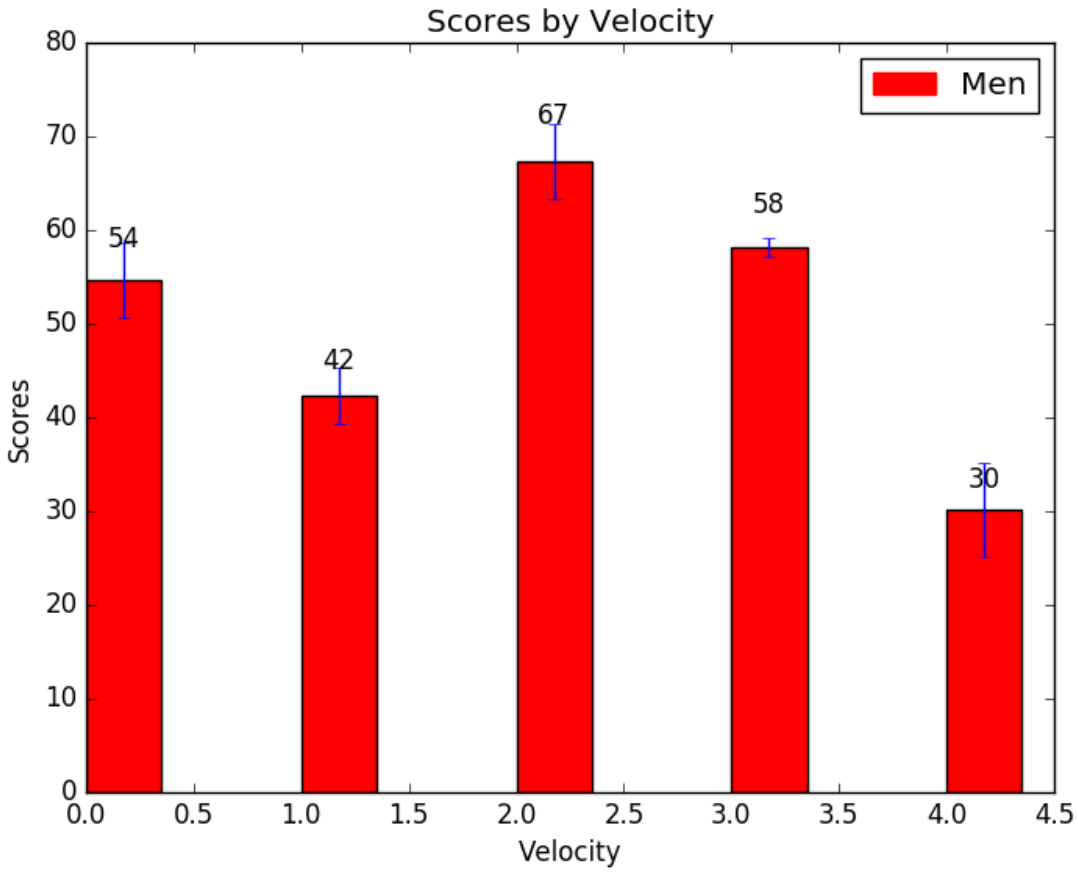
13. Write a Python program to create bar plots with errorbars on the same figure. Attach a text label above each bar displaying men means (integer value).

Sample Data

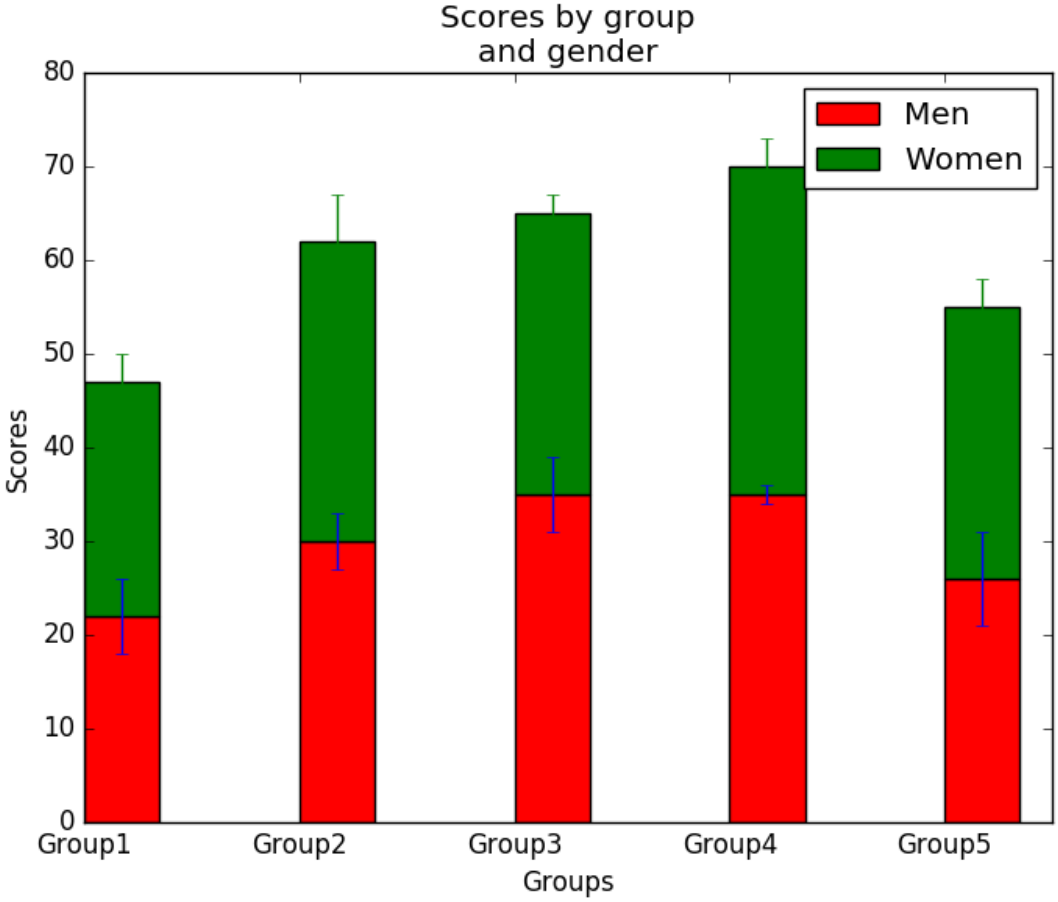
Mean velocity: 0.2474, 0.1235, 0.1737, 0.1824

Standard deviation of velocity: 0.3314, 0.2278, 0.2836, 0.2645

The code snippet gives the output shown in the following screenshot:



14. Write a Python program to create a stacked bar plot with error bars.
Note: Use bottom to stack the women?s bars on top of the men?s bars.
Sample Data:
Means (men) = (22, 30, 35, 35, 26)
Means (women) = (25, 32, 30, 35, 29)
Men Standard deviation = (4, 3, 4, 1, 5)
Women Standard deviation = (3, 5, 2, 3, 3)
The code snippet gives the output shown in the following screenshot:


Scores by group
and gender
Men
Women
Scores
0
10
20
30
40
50
60
70
80
Group1
Group2
Group3
Group4
Group5
Groups