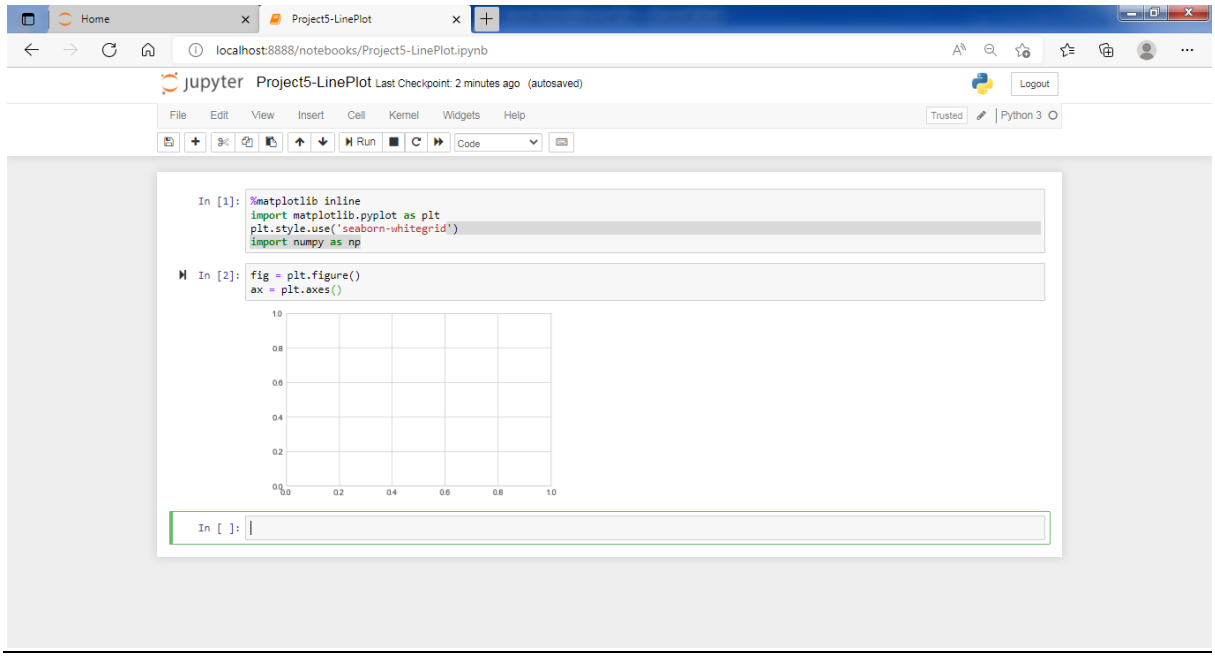
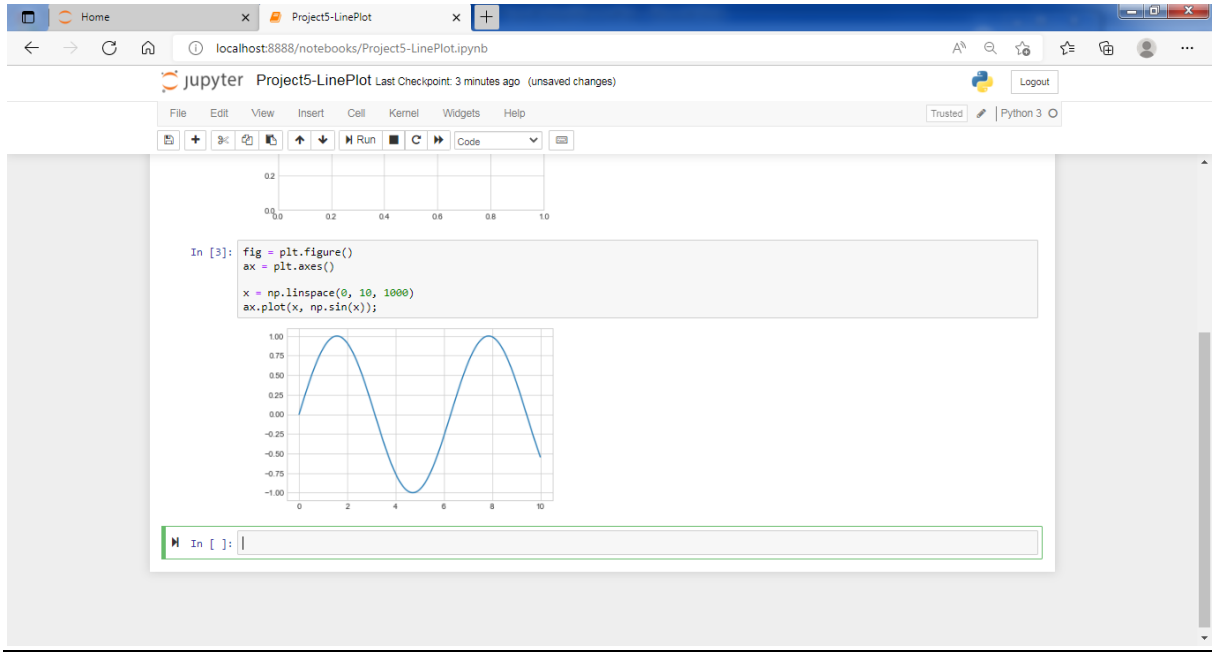
Line Plots

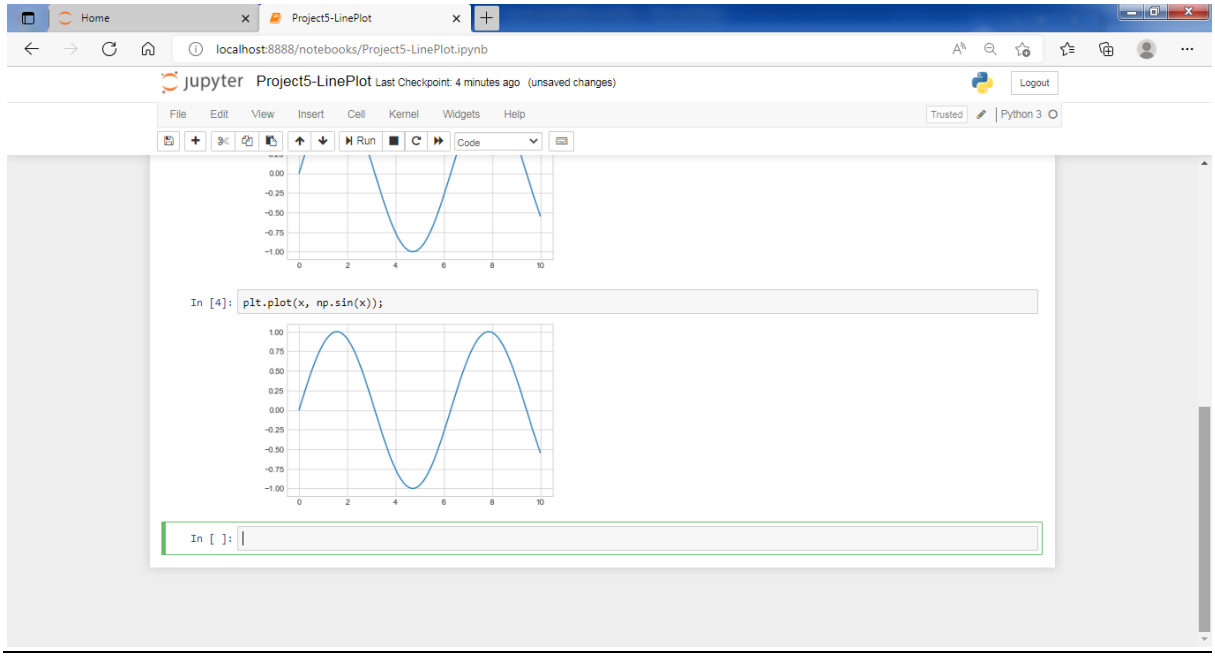
Simple plot , y= f(x)



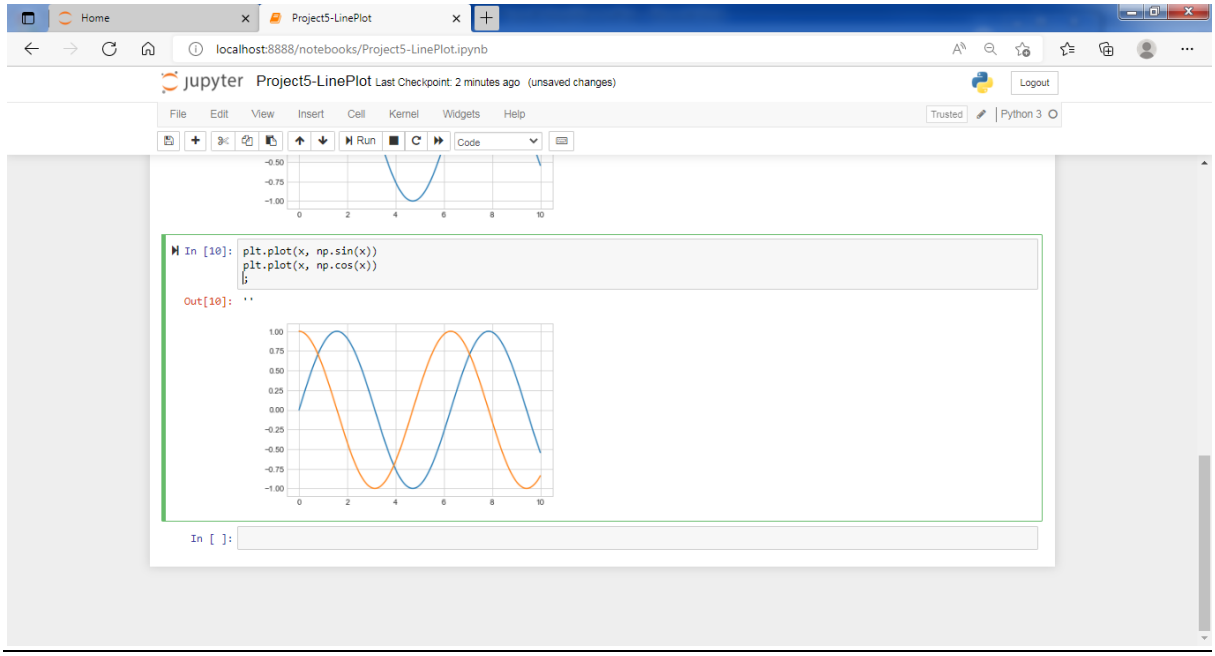
A simple sign-curve plot



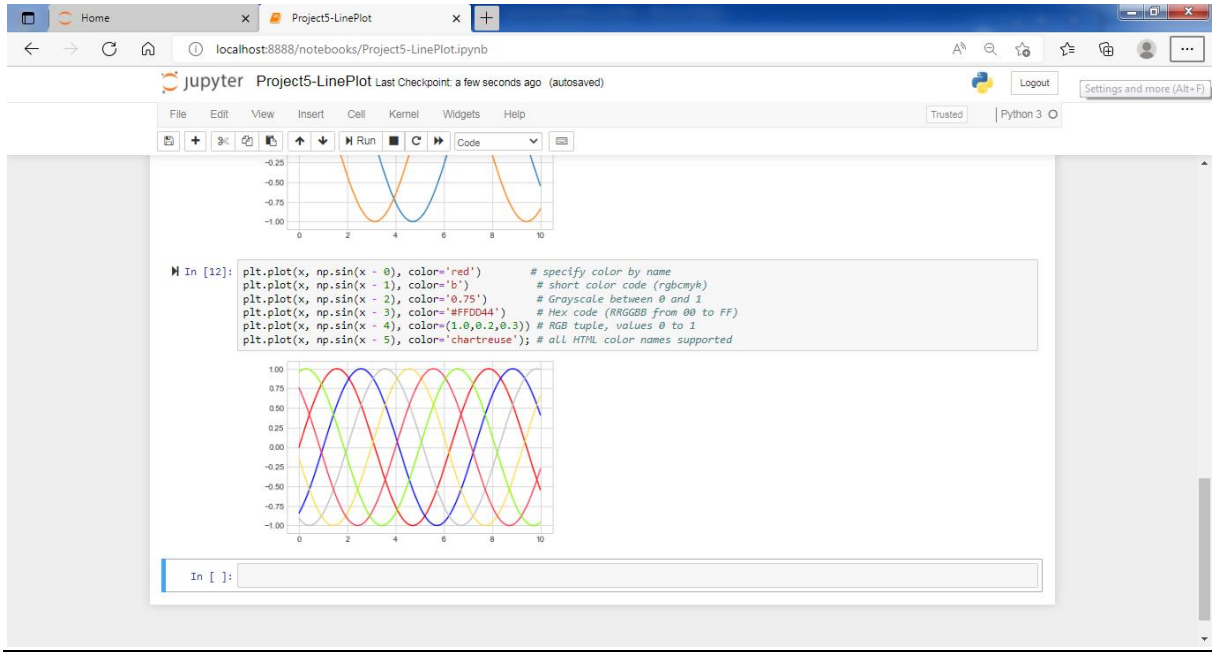
Alternatively

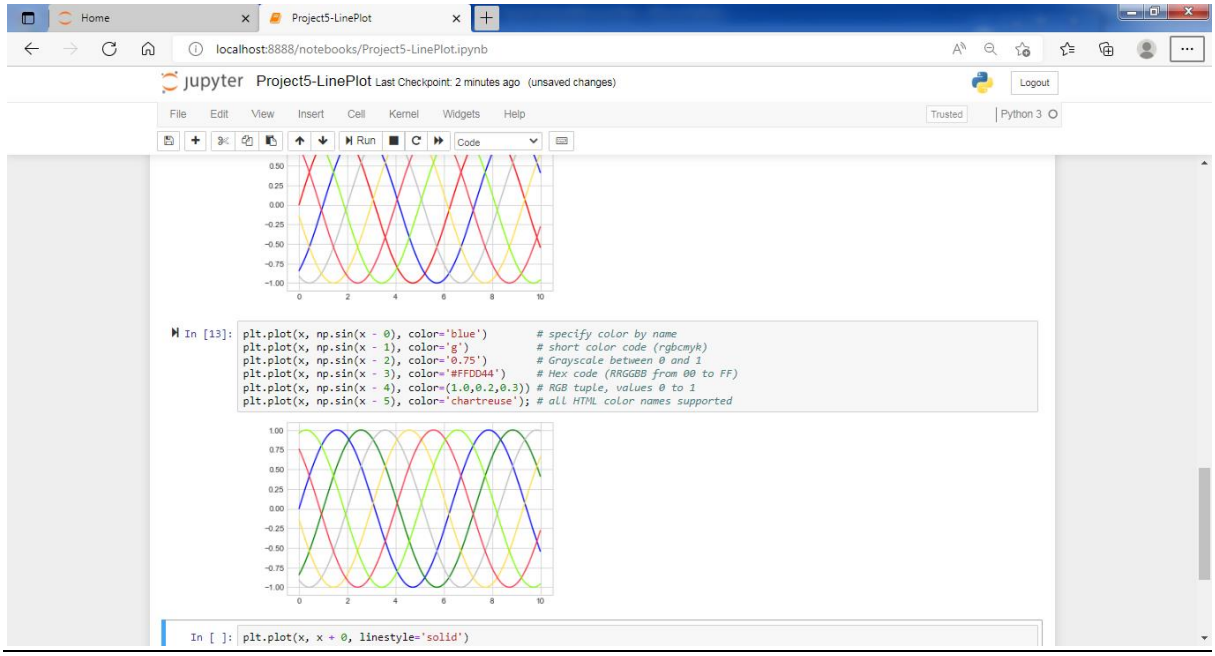


Multiple Lines



Using color, styles

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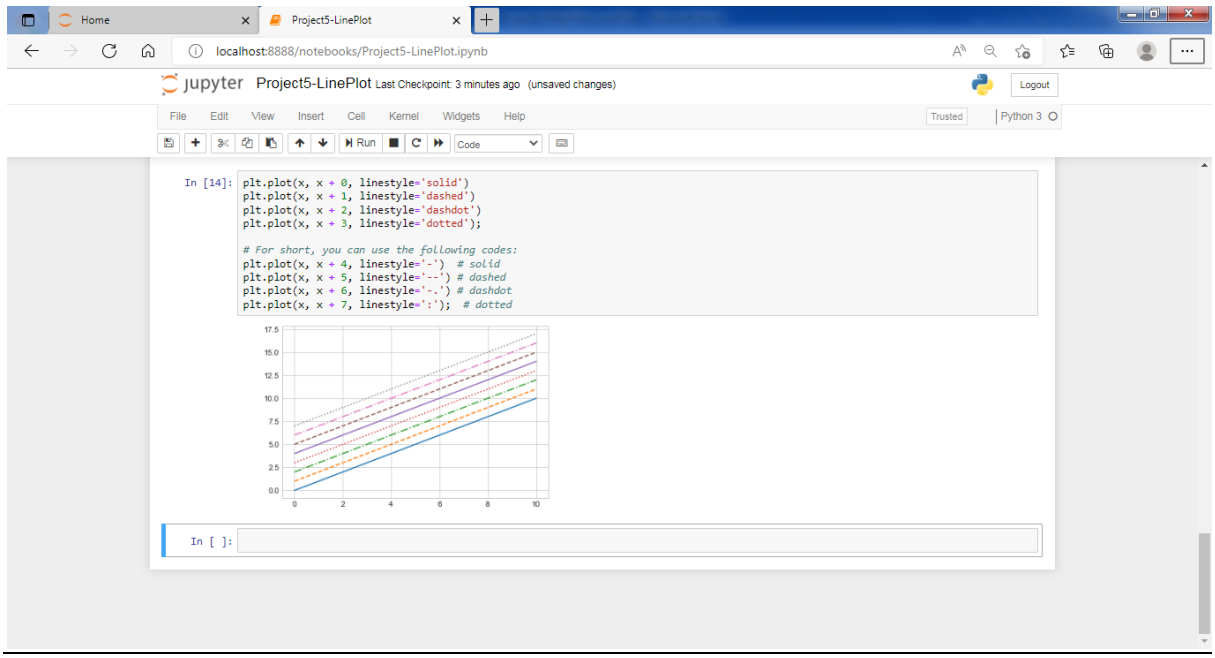
Code
In [13]:
plt.plot(x, np.sin(x - 0), color='blue') # specify color by name
plt.plot(x, np.sin(x - 1), color='g') # short color code (rgbcmyk)
plt.plot(x, np.sin(x - 2), color='0.75') # Grayscale between 0 and 1
plt.plot(x, np.sin(x - 3), color='#FFDD44') # Hex code (RRGGBB from 00 to FF)
plt.plot(x, np.sin(x - 4), color=(1.0,0.2,0.3)) # RGB tuple, values 0 to 1
plt.plot(x, np.sin(x - 5), color='chartreuse'); # all HTML color names supported
In [ ]:
plt.plot(x, x + 0, linestyle='solid')

Line Styles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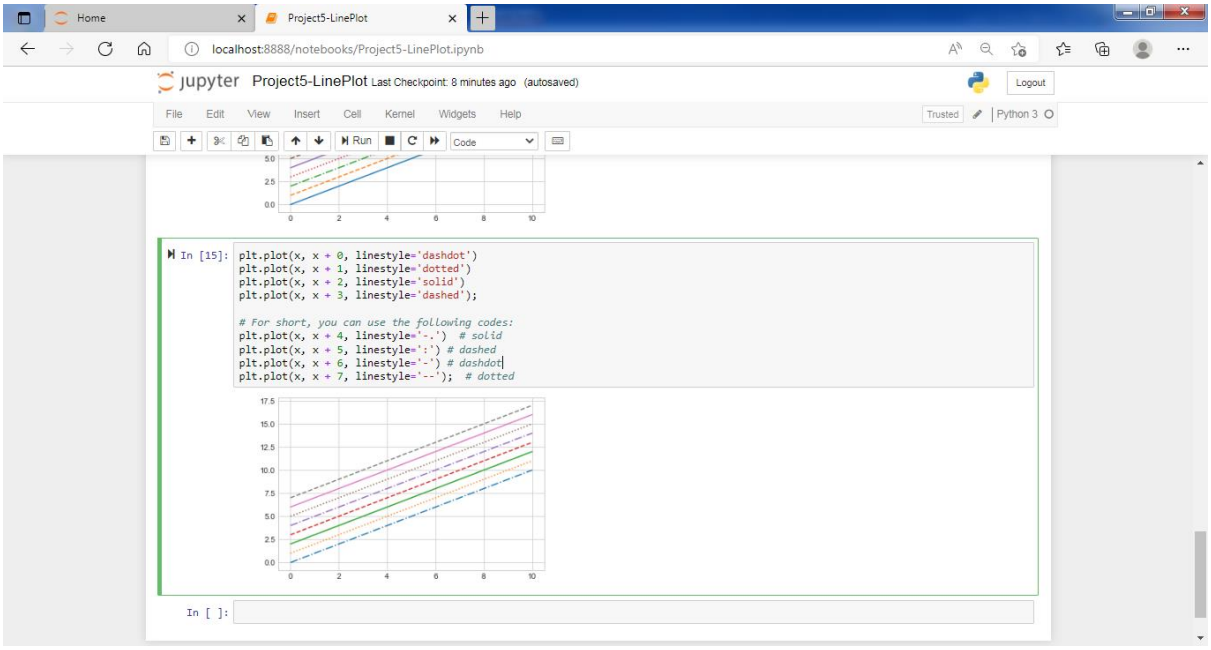
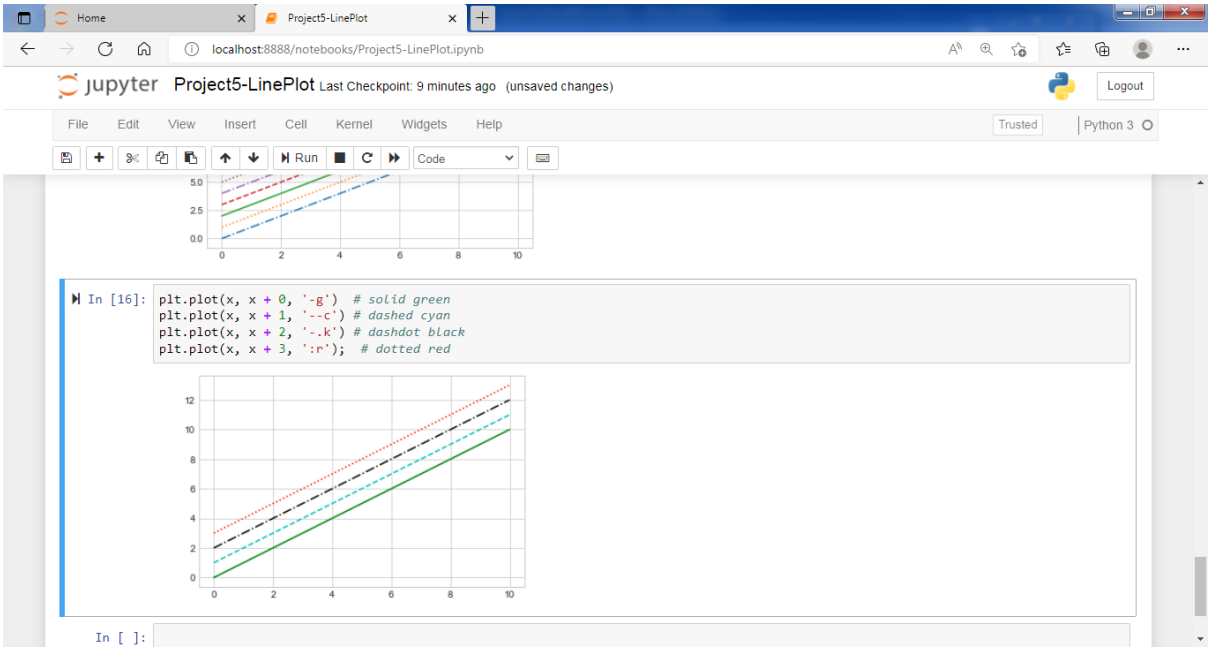
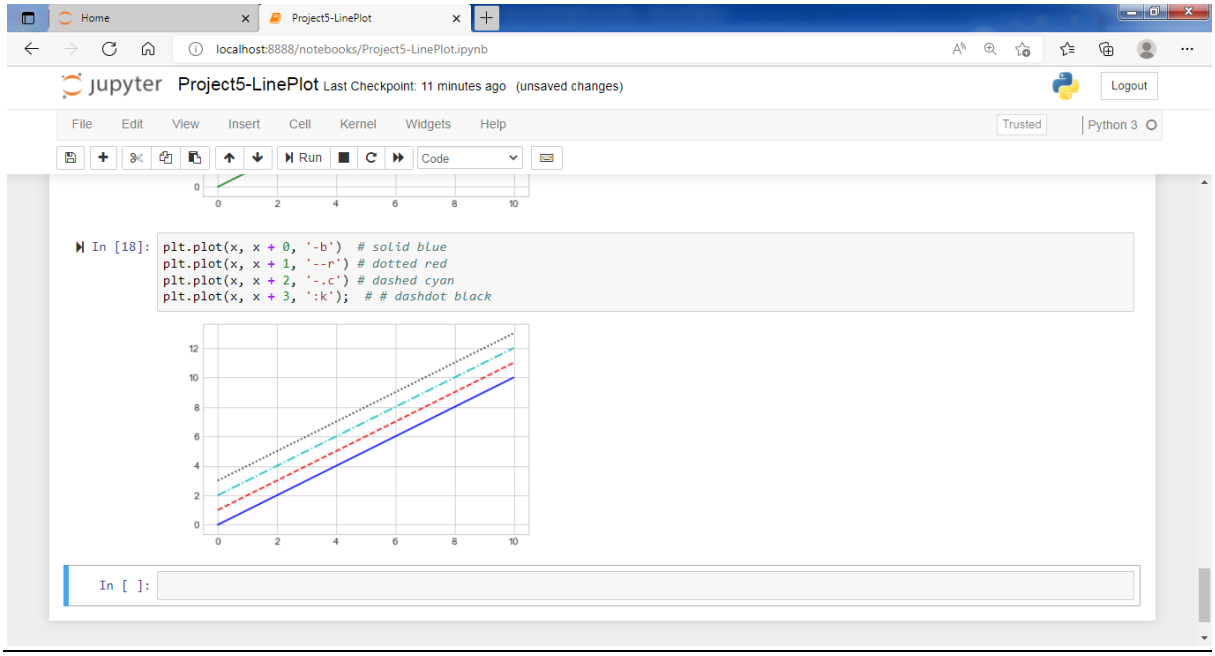
Python 3
Run
Code
In [14]:
plt.plot(x, x + 0, linestyle='solid')
plt.plot(x, x + 1, linestyle='dashed')
plt.plot(x, x + 2, linestyle='dashdot')
plt.plot(x, x + 3, linestyle='dotted');
# For short, you can use the following codes:
plt.plot(x, x + 4, linestyle='-') # solid
plt.plot(x, x + 5, linestyle='--') # dashed
plt.plot(x, x + 6, linestyle='-.') # dashdot
plt.plot(x, x + 7, linestyle=':'); # dotted
In [ ]:

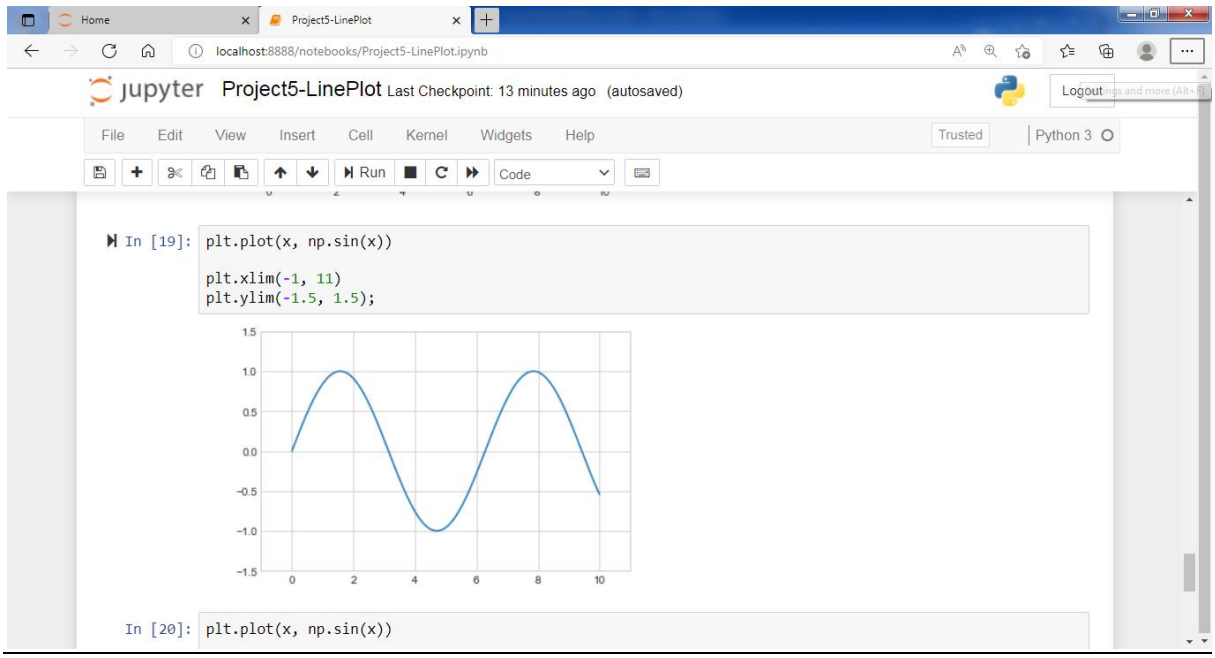


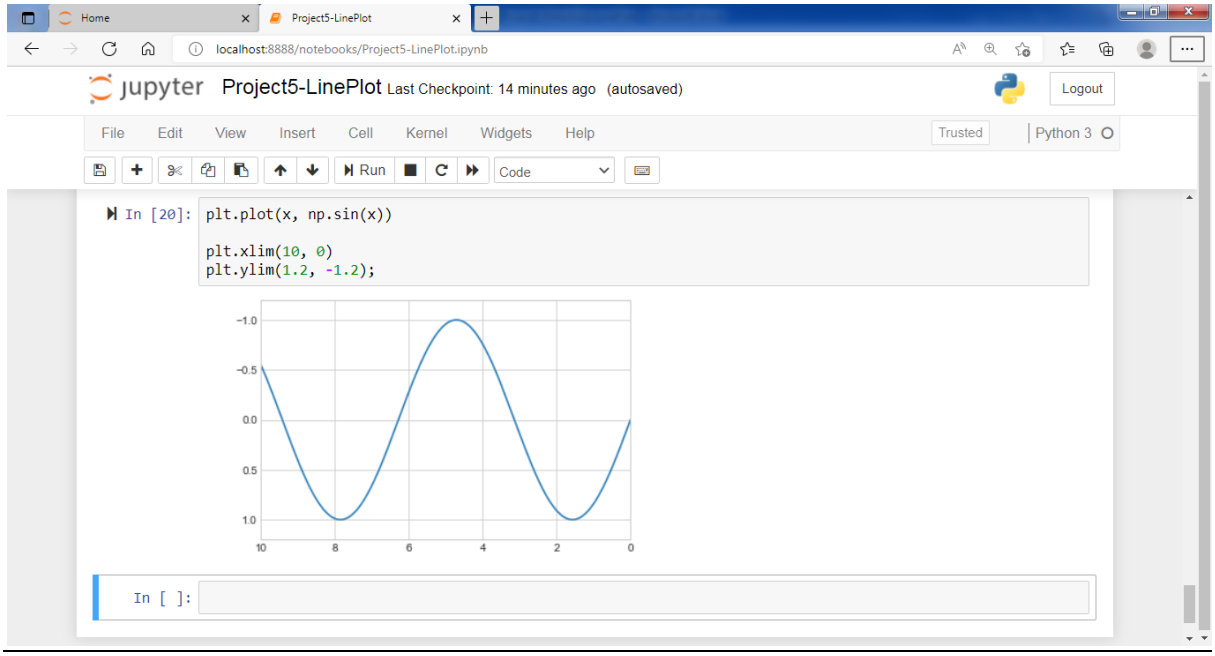
linestyle and color codes can be combined into a single non-keyword argument to the plt.plot() function



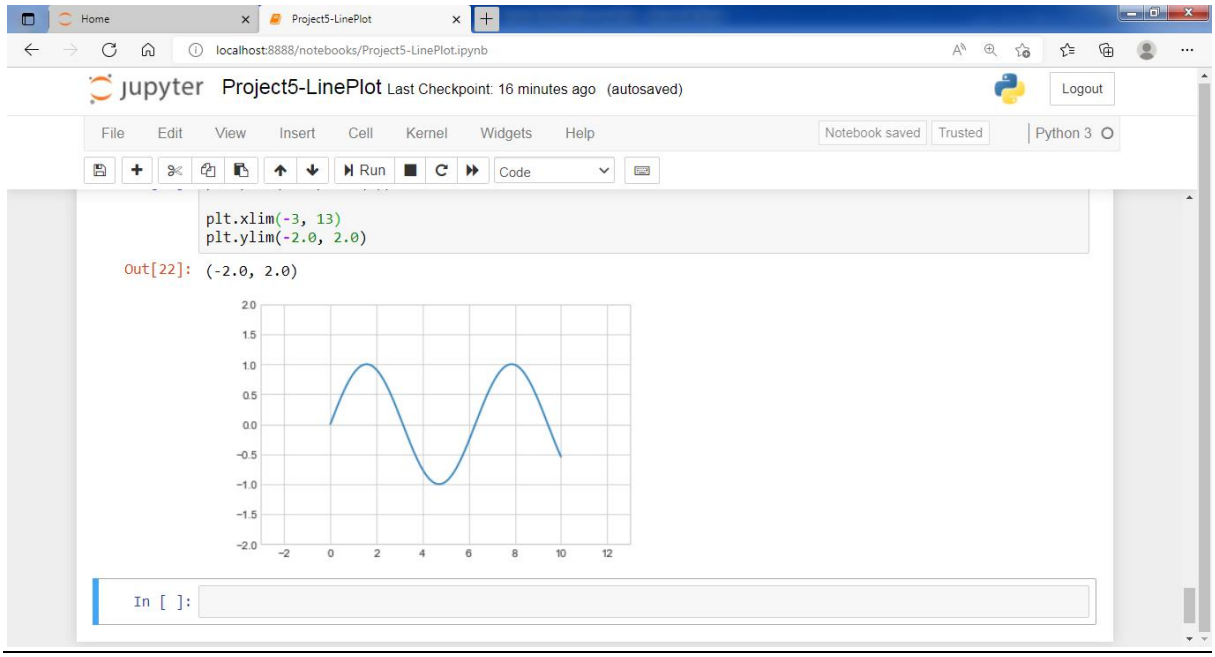


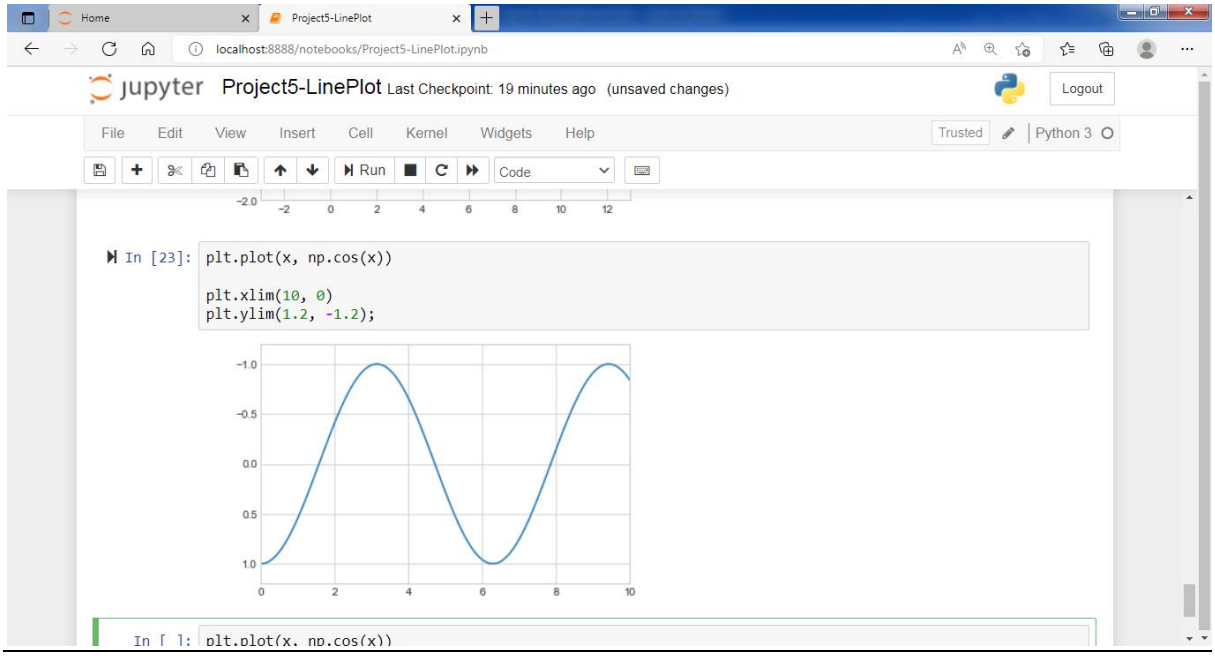
Adjusting Axes limits with xlim and ylim

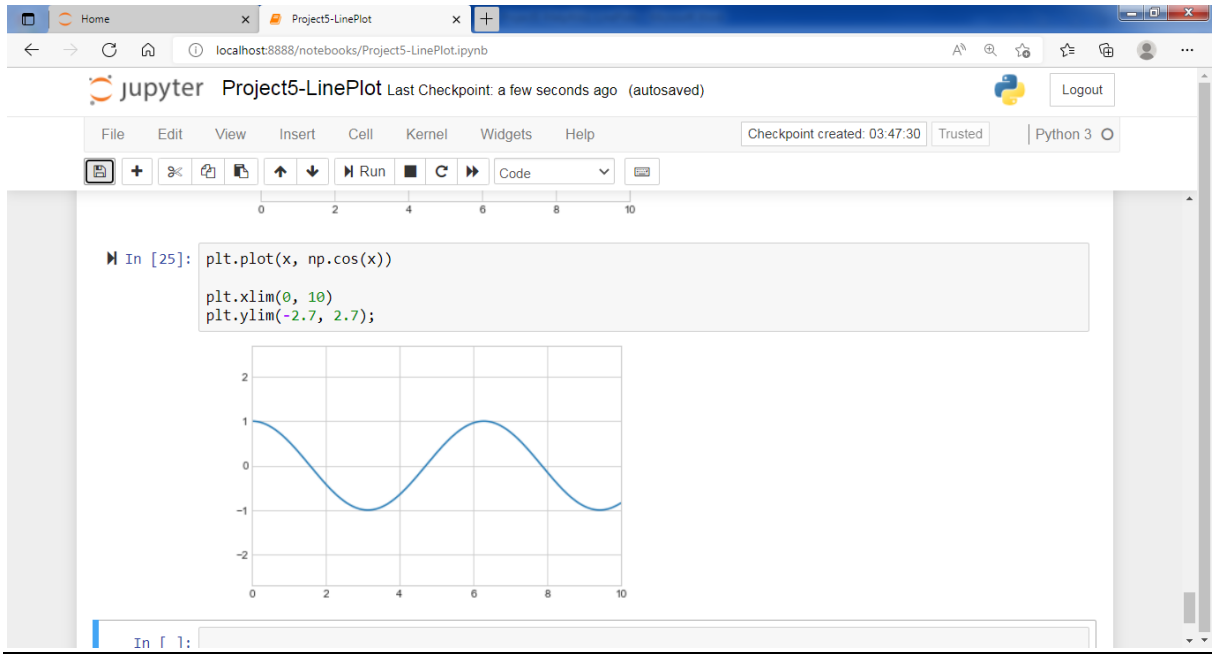




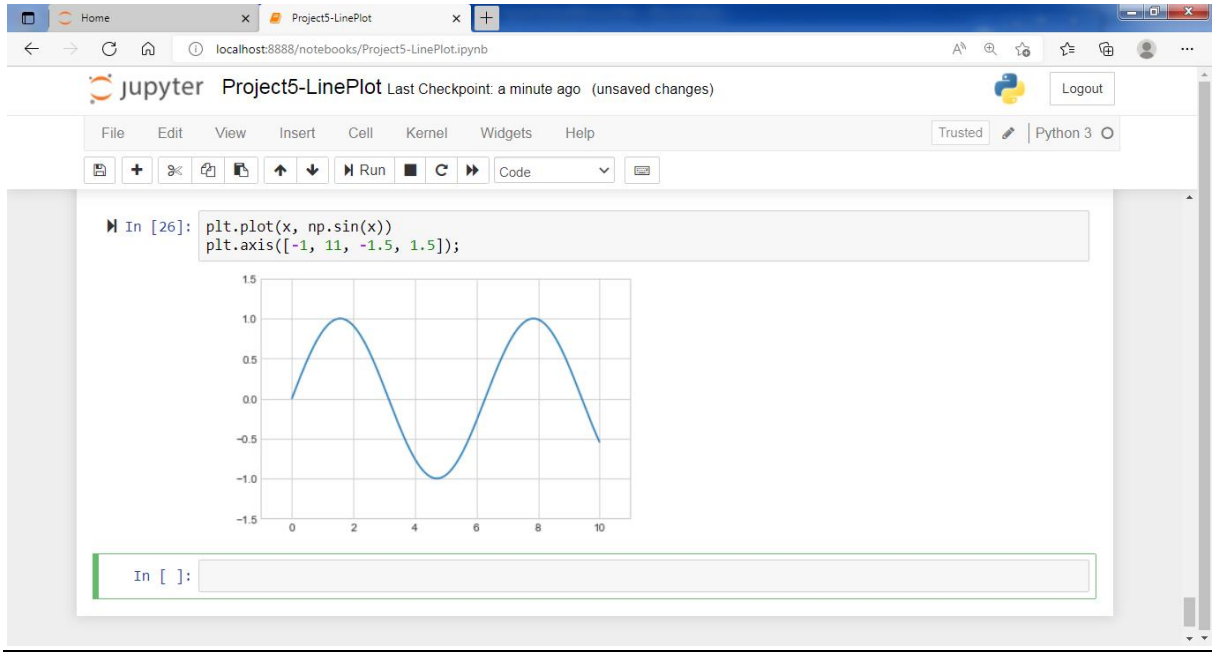
Example Set 2

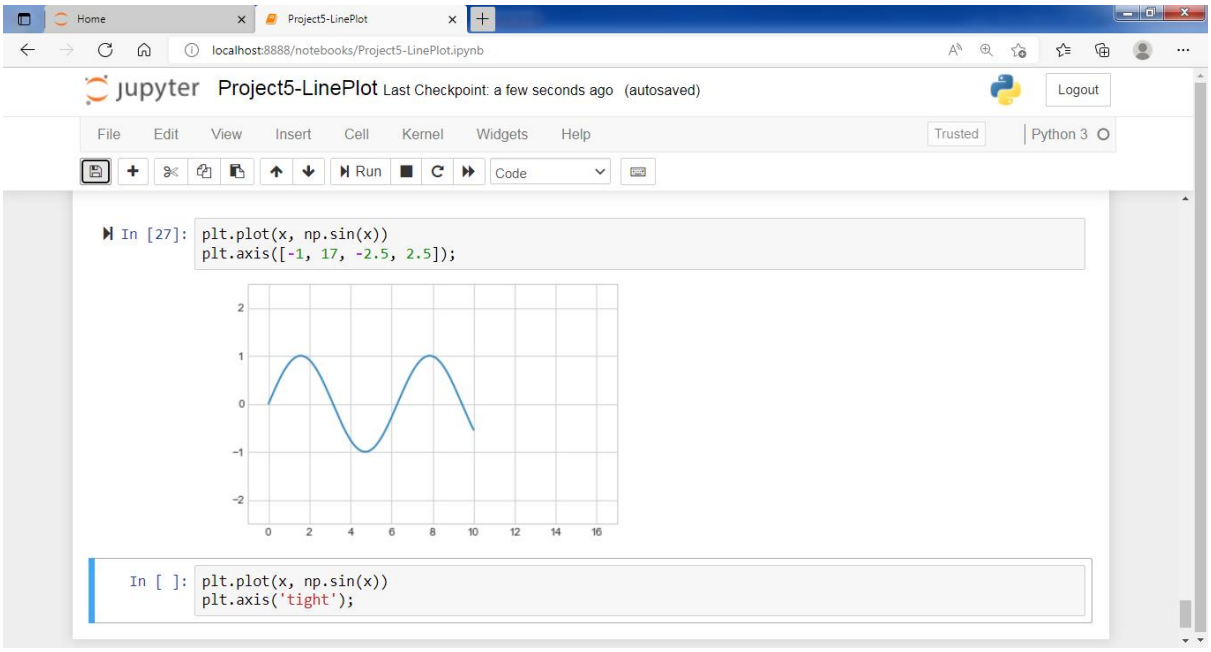




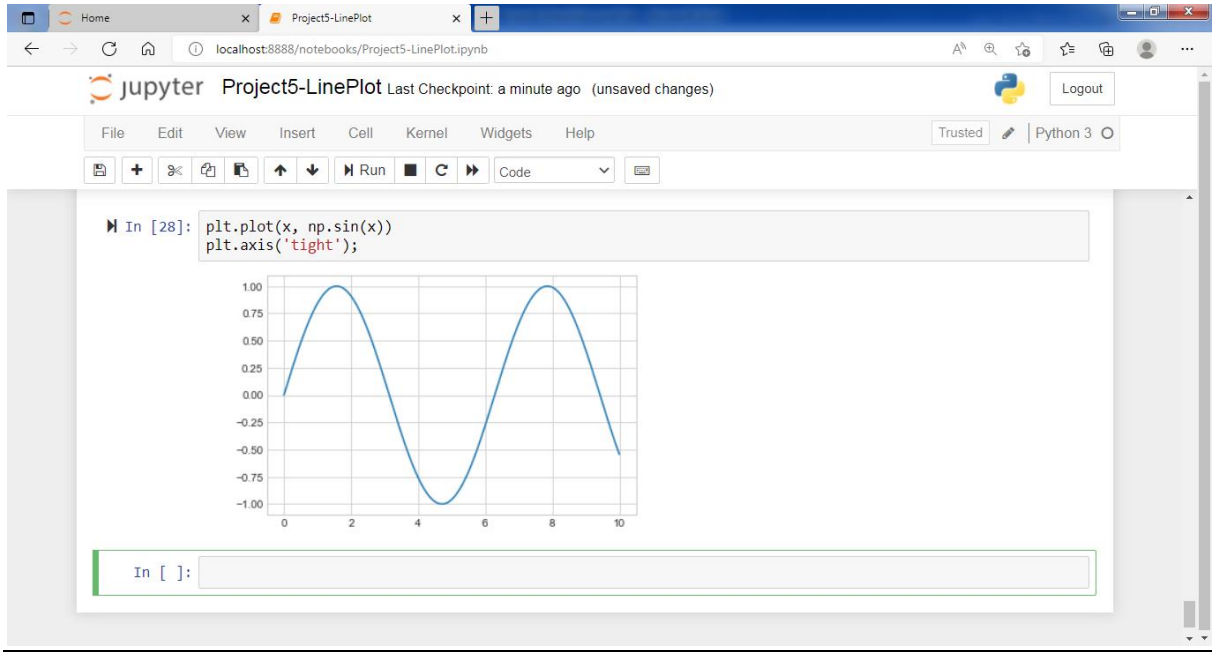


Plt.axis method

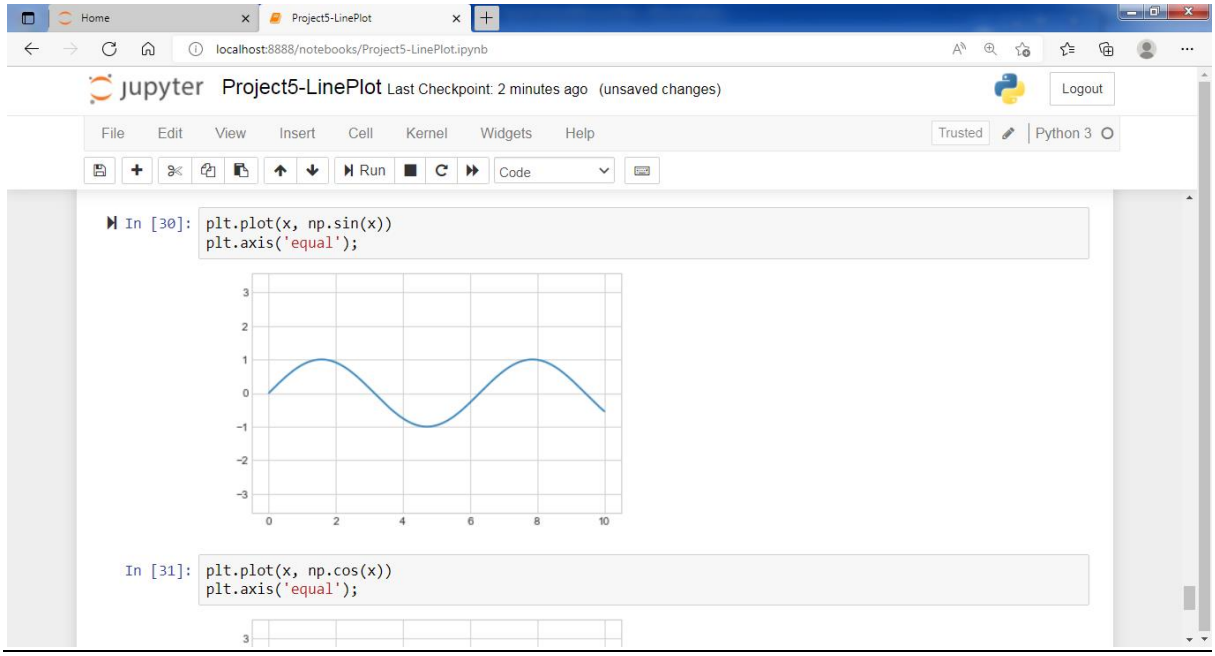


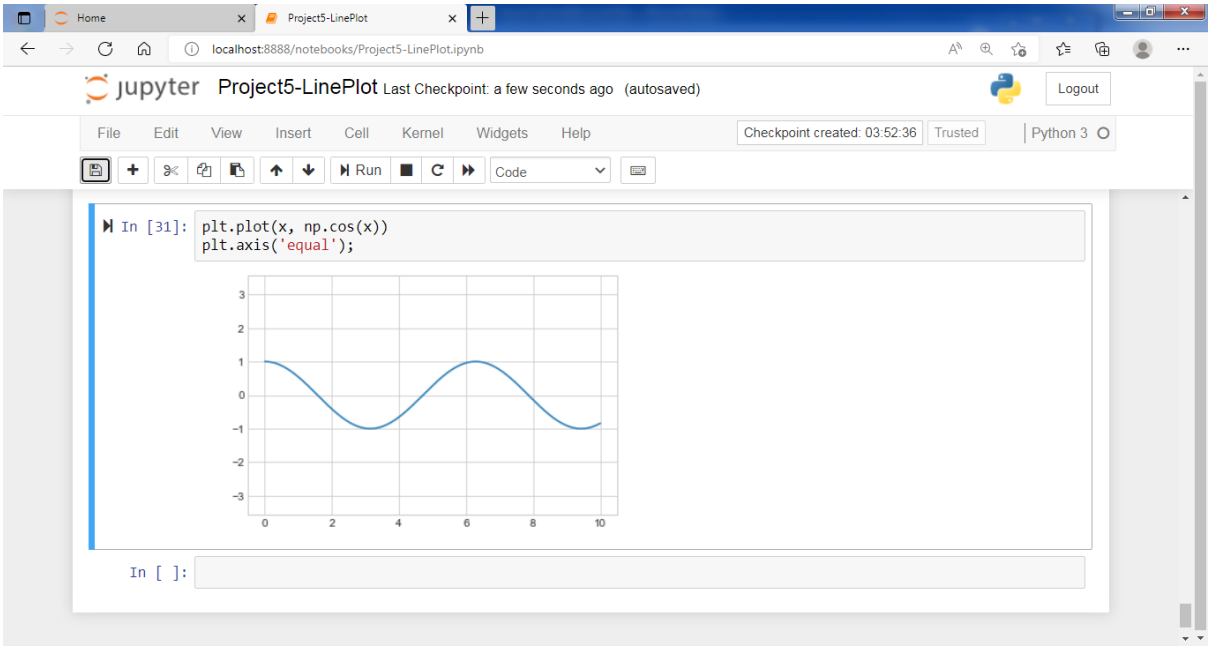


Automatically tightens the borders

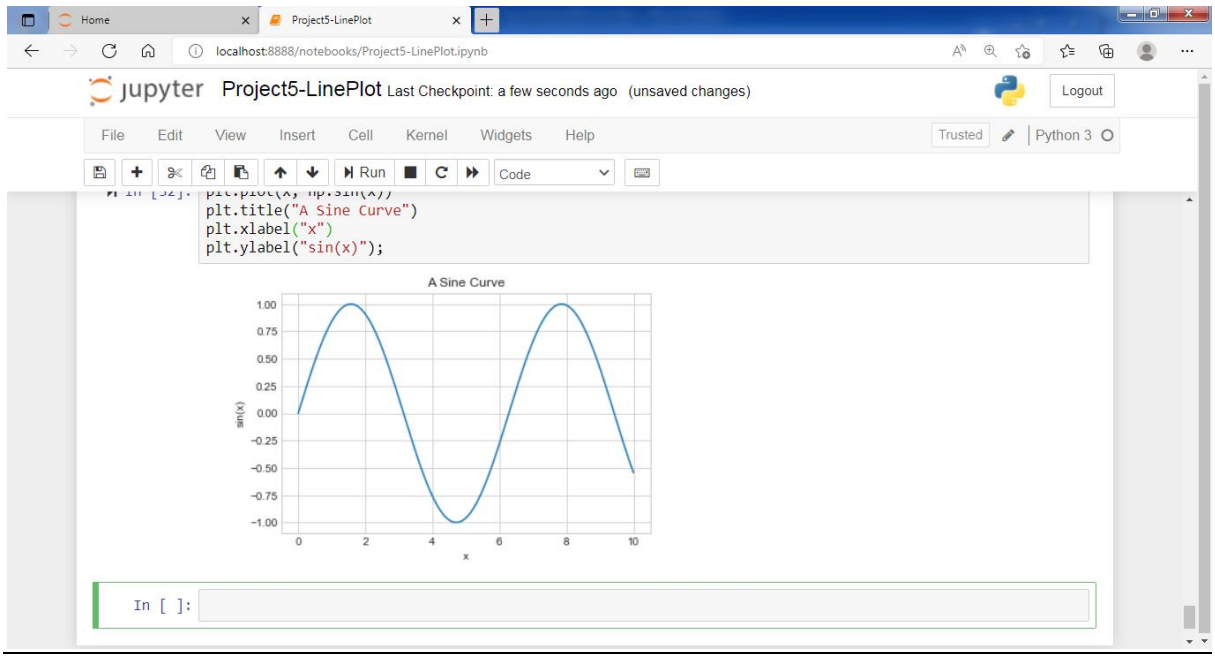


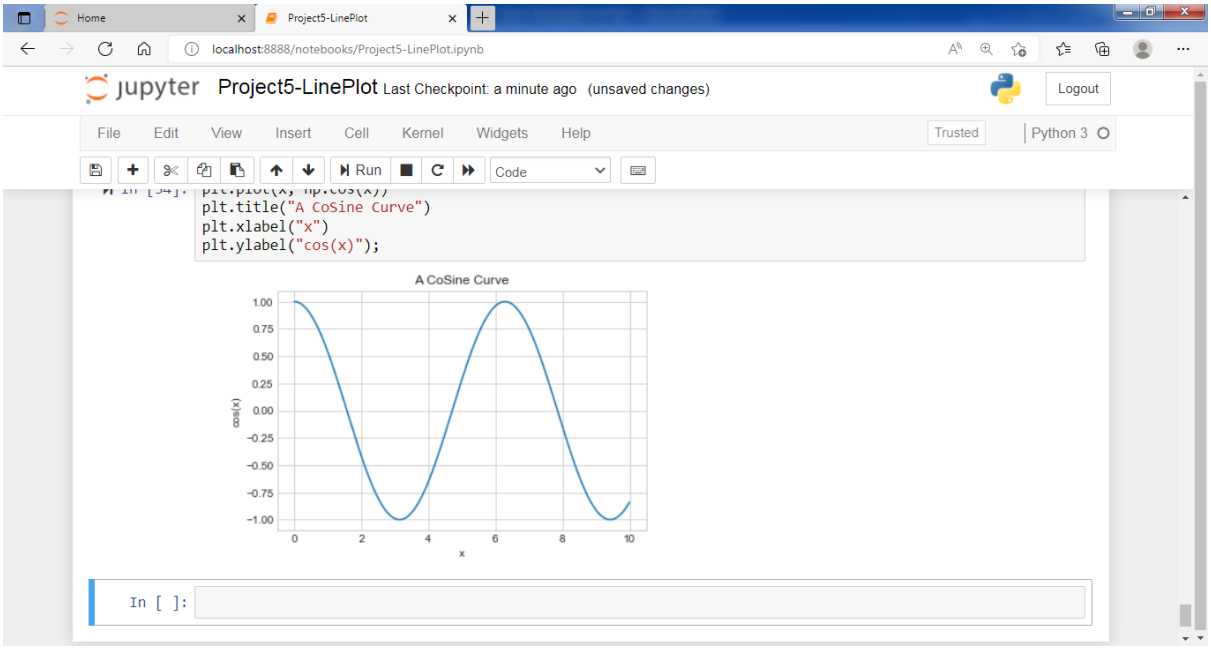
Equal aspect ratio





Labelling the curve

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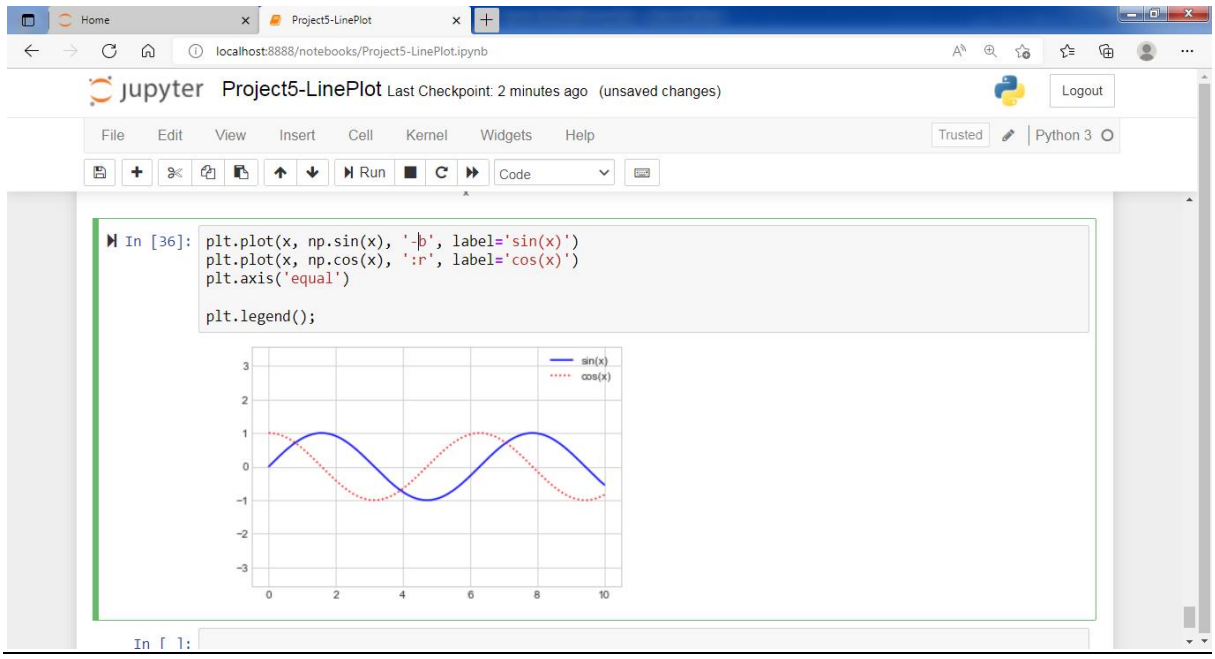
Code
plt.title("A CoSine Curve")
plt.xlabel("x")
plt.ylabel("cos(x)");
A CoSine Curve
cos(x)
x
In [ ]:

Legends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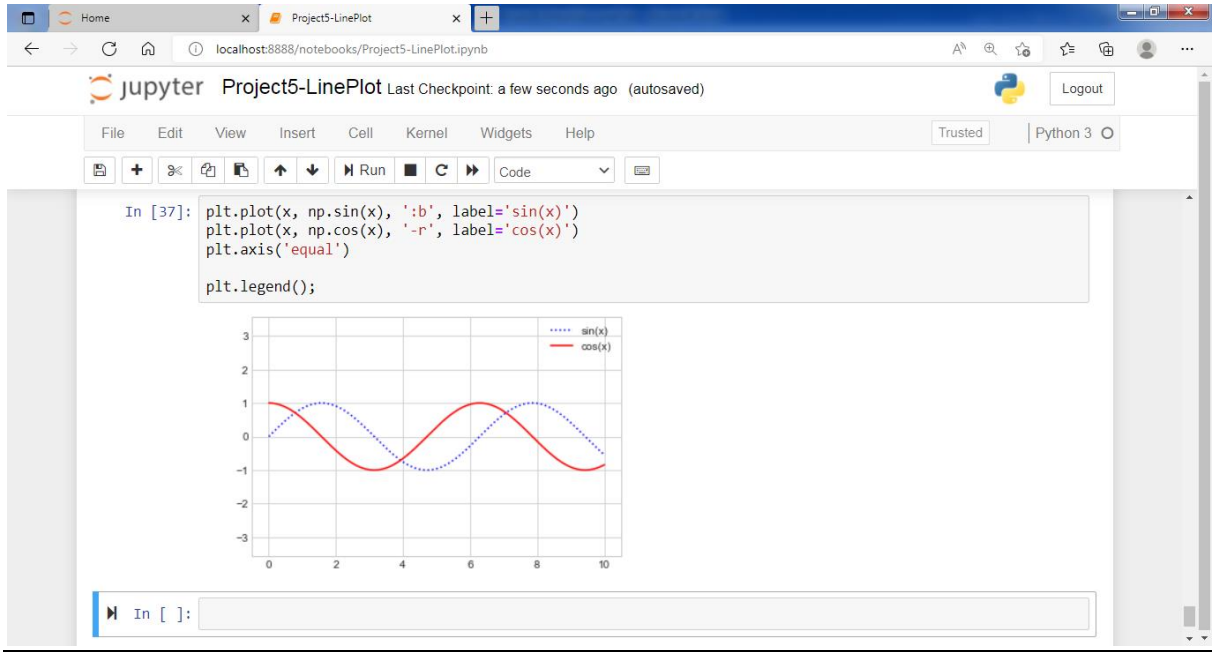
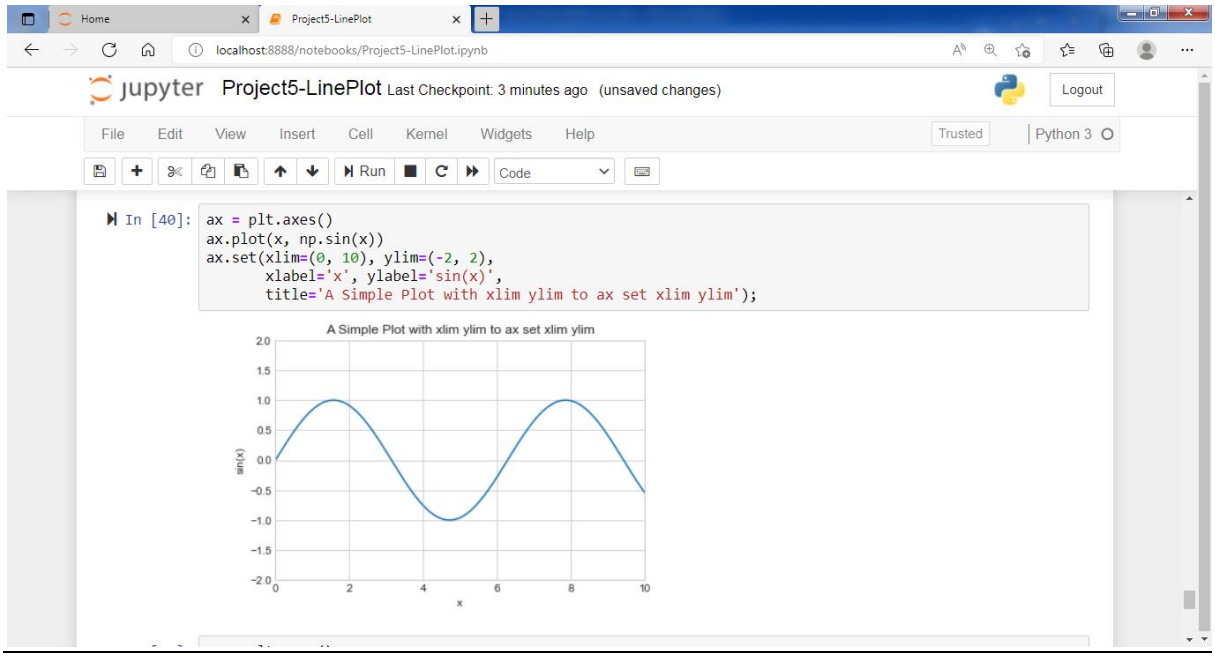
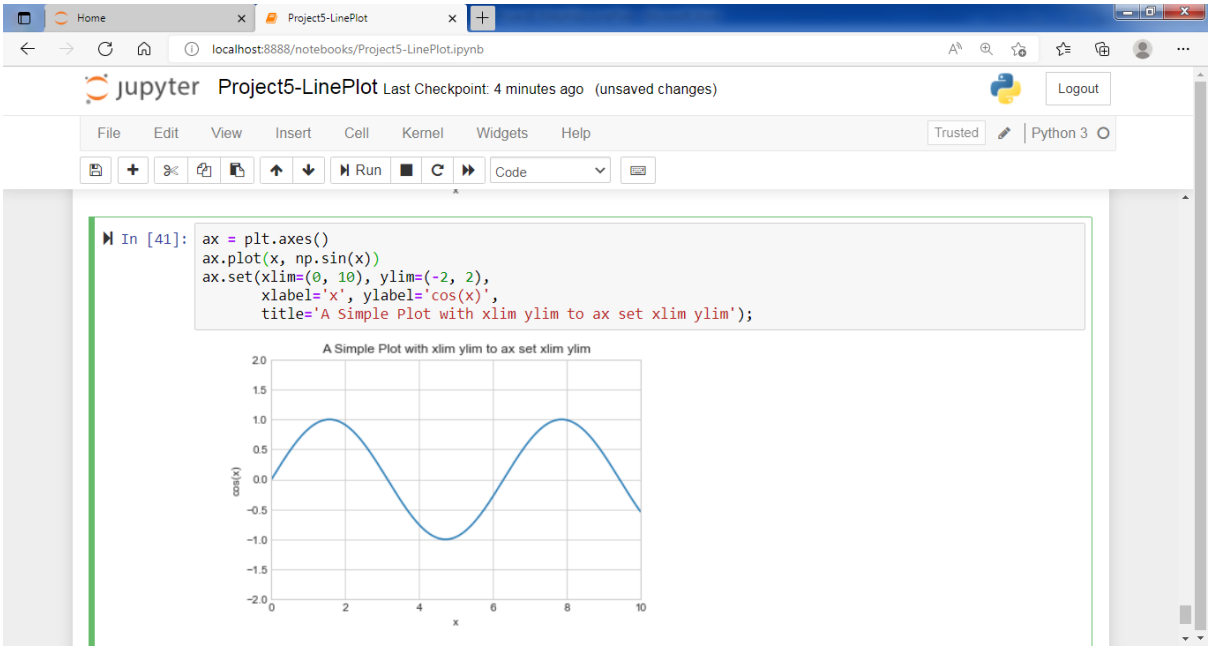
Run
Code
In [36]:
plt.plot(x, np.sin(x), '-b', label='sin(x)')
plt.plot(x, np.cos(x), ':r', label='cos(x)')
plt.axis('equal')
plt.legend();
sin(x)
cos(x)



Transmission between xlim ylim to ax -> set xlim,ylim

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Python 3
Run
Code
In [41]:
ax = plt.axes()
ax.plot(x, np.sin(x))
ax.set(xlim=(0, 10), ylim=(-2, 2),
xlabel='x', ylabel='cos(x)',
title='A Simple Plot with xlim ylim to ax set xlim ylim');
A Simple Plot with xlim ylim to ax set xlim ylim
cos(x)
x