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In [11]: K NeighborsClassifier
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In [29]: import numpy as np
from matplotlib import pyplot as plt
from sklearn.neighbors import KNeighborsClassifier
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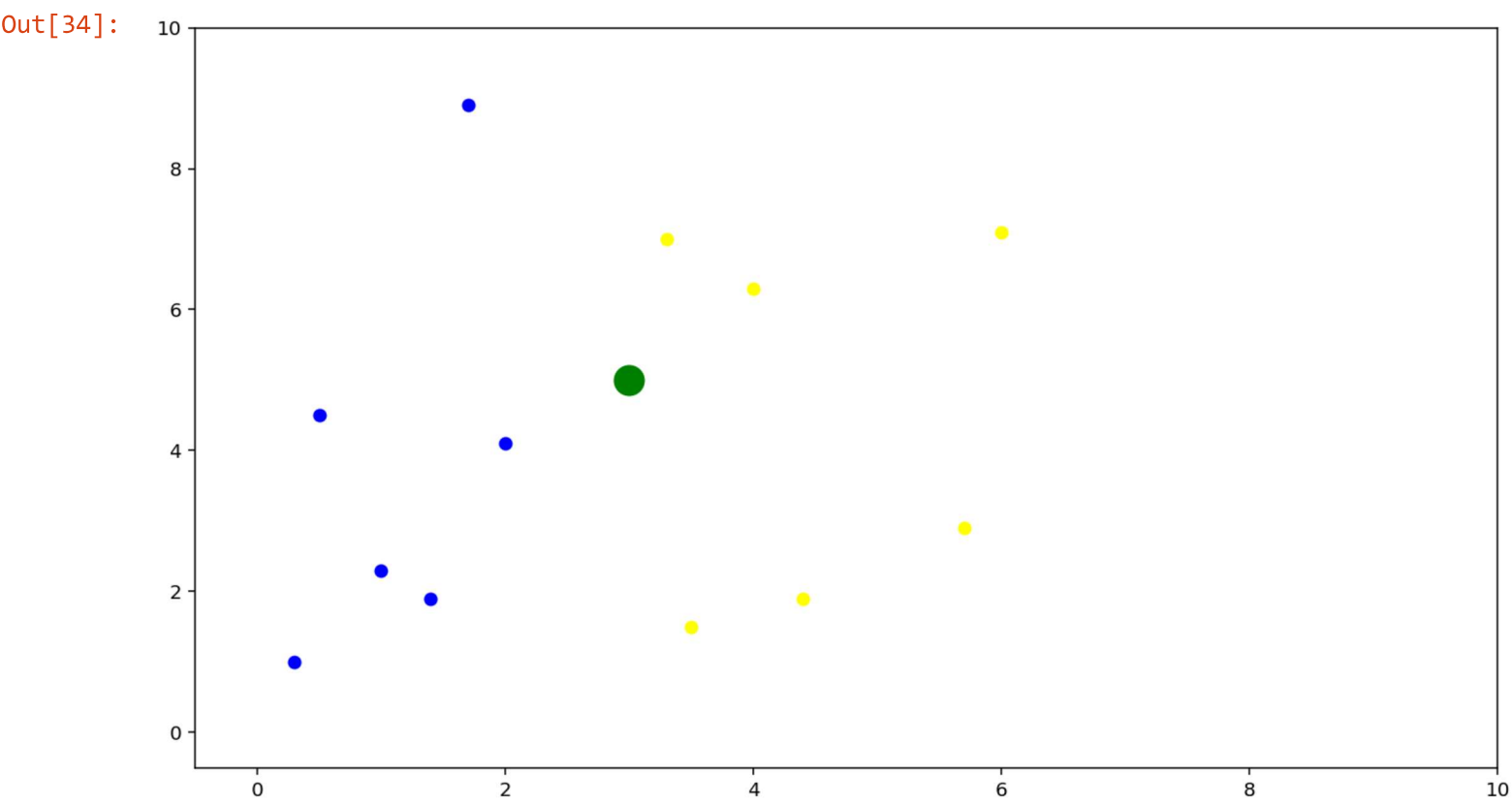
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In [30]: xBlue = np.array([0.3,0.5,1,1.4,1.7,2])
yBlue = np.array([1,4.5,2.3,1.9,8.9,4.1])
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In [31]: xyellow = np.array([3.3,3.5,4,4.4,5.7,6])
yyellow = np.array([7,1.5,6.3,1.9,2.9,7.1])
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In [32]: X = np.array([[0.3,1],[.5,4.5],[1,2.3],[1.4,1.9],[1.7,8.9],[2,4.1],[3.3,7],[3.5,1.5],[4,6.3],[4.4,1.9],[5.7,2.9],[6,7.1]])
y = np.array([0,0,0,0,0,0,1,1,1,1,1,1]) # 0: blue class, 1: yellow class
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In [34]: plt.plot(xBlue, yBlue, 'ro', color = 'Blue')
plt.plot(xyellow, yyellow, 'ro', color = 'yellow')
plt.plot(3,5,'ro',color='green', markersize=15)
plt.axis([-0.5,10,-0.5,10])
classifier = KNeighborsClassifier(n_neighbors=3) # this is the k value
classifier.fit(X,y)
pred = classifier.predict([[3,5]])
print(pred)
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[1]



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In [35]: plt.show()
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In [0]:
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In [0]:
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In [0]:
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