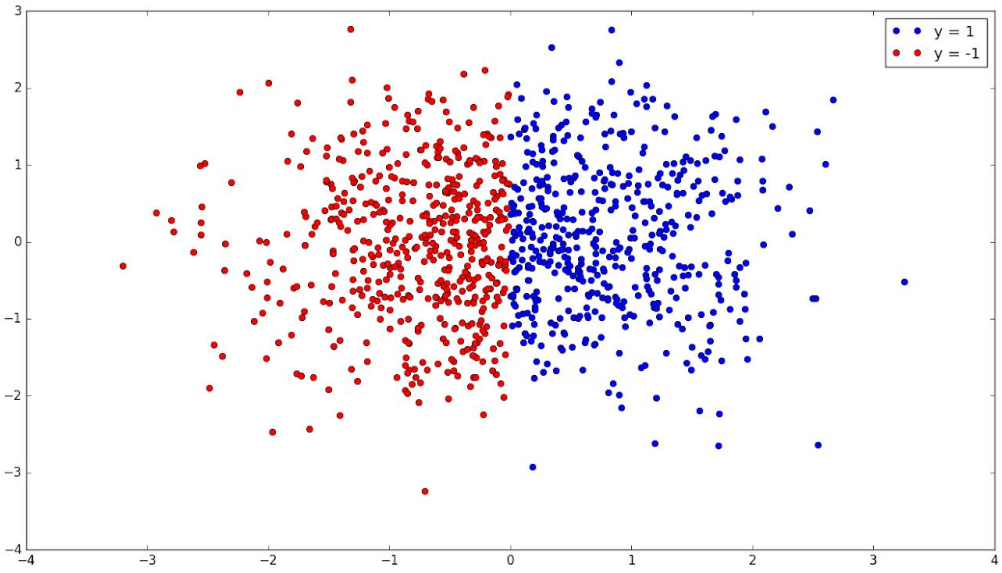
Observations:

Since the data has a property of, class 1 being right side of the y-axis and class-1 on the left side of the y-axis as evident from the plot below



If the data point is considerably away from the y-axis then smaller k can also be considered for making a concrete decision.

If test-sample is extremely close to Y-axis or near origin, the number of neighbors should be high enough to make a perfect decision.(not very high even in which there is no point)

Example:

If the x_test data is [1e-4,0.01];(the point very close to y-axis)

In this case k=10 gave an measure of .6 (>0) predicting class 1
In this case k=15 gave good measure of .73 (>0) predicting class 1
In this case k=20 gave an measure of .6 (>0) predicting class 1

Where,
measure=sum of first K labels in sorted array of distances/k