**Example**

The following is an example to understand the concept of K and working of KNN algorithm

Suppose we have a dataset that can be plotted as follows −

Chart, scatter chart

Description automatically generated

Now, we need to classify new data point with black dot (at point 60,60) into blue or red class. We are assuming K = 3 i.e., it would find three nearest data points. It is shown in the next diagram –

Chart

Description automatically generated

We can see in the above diagram the three nearest neighbors of the data point with black dot. Among those three, two of them lies in red class hence the black dot will also be assigned in red class.