Both curves are degree five Bezier curves and they share the same control points. The red one consists of two integral curves and the blue one consists of two rational curves with different weights, which are shown at their control points. Integral Bezier curves can be thought as rational curves with all weights set to one.

As you can see, the curve is pulled towards the points, depending on their weights. Thus you will have much more control over the curve shape. Rational curves also allow to draw exact conics like ellipses, circles, parabolas and hyperbolas.