Before



After



In this two images plots the generated data. It then applies K-means clustering to classify these points into two groups. The resulting classification is plotted, showing how the algorithm has grouped the points compared to the original data generation

Before the clustering, the separation is based on the way the data was originally generated. The points are colored red or blue according to the group they were generated from. You should see that these two groups of points are somewhat separated because they were generated from different multivariate normal distributions.

After the clustering, the points are colored based on the cluster that the K-means algorithm has assigned them to. The goal of K-means is to identify the original groups in the data, so if it performs well, you should see a similar separation between the red and blue points as in the first plot.