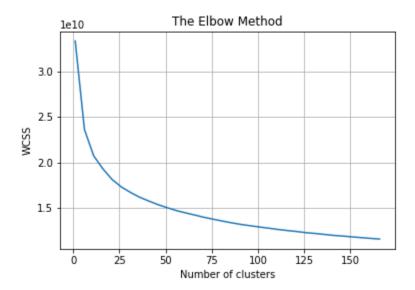
I tried to fit the KMeans model with different number of clusters and computed their WCSS (within cluster sum of squares) values. I experimented with the range of clusters from 1 to 150 and plotted the following graph.



Using the Elbow Method, I concluded that the optimum number of clusters must lie within the range 25 to 75. With some experimentation , I arrived at the value of 68 as the optimum number of clusters.