

#### IV. THE PROPOSED HADOOP MAPREDUCE FRAMEWORK FOR CONTENT-BASED IMAGE RETRIEVAL SYSTEMS.

Based on the knowledge in previous section, Fig.7 and Fig. 8 show an illustrate of distributed CBIR system processes of the two main functions using MapReduce framework to increase the performance of calculation. The functions of CBIR such feature extraction and similarity measurement are applied by using MapReduce scheme. In insertion module (feature extraction), images are divided by NameNode, determines the mapping of blocks to DataNodes. The cluster also has a number of DataNodes, usually one per node in the cluster. DataNodes manage the storage that is attached to the nodes on which they run. Another module is query processing module (similarity measurement). It executes the vector feature of images from database images and query image. The block size determines base on a size of vector feature, depends on image descriptor.

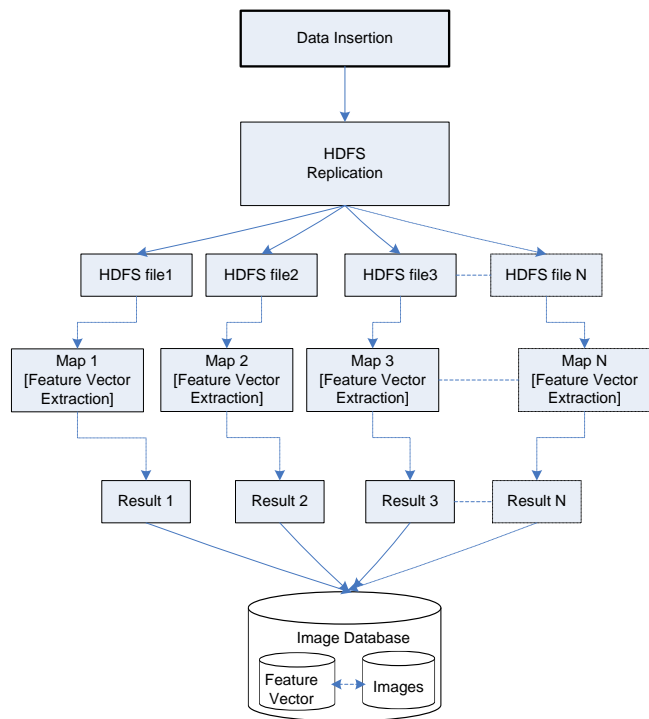


Figure 1. The proposed a distributed processing framework using MapReduce for data insertion module in CBIR system.

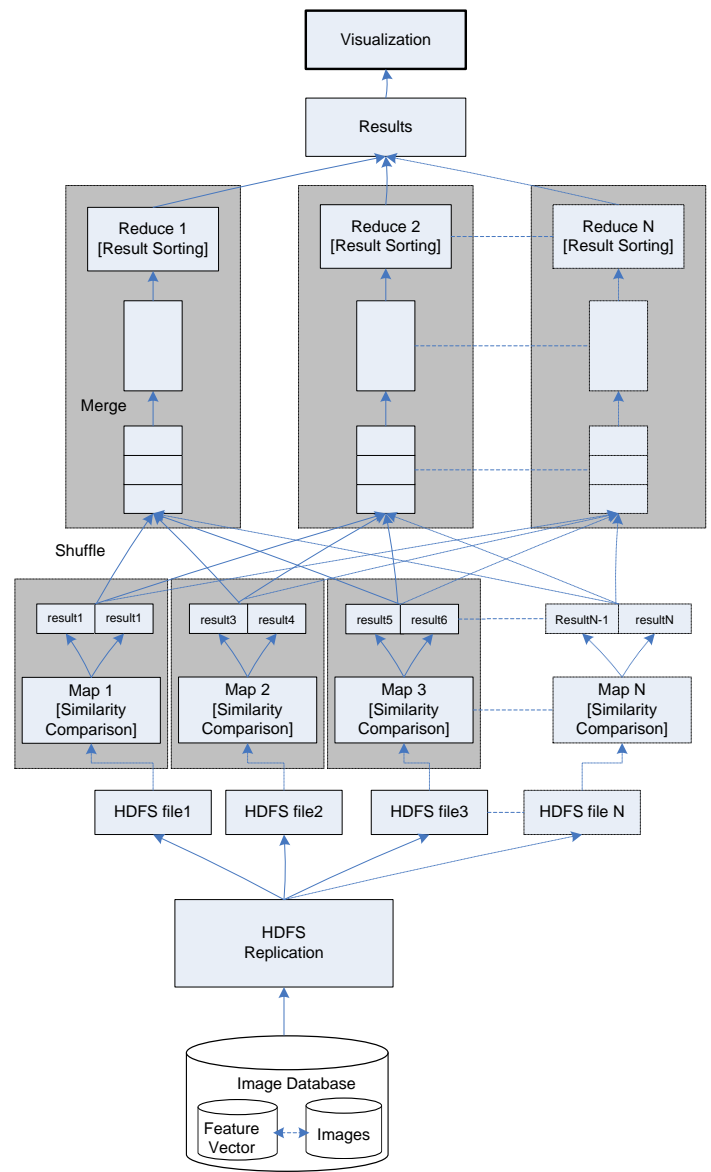


Figure 2. The proposed a distributed processing framework using MapReduce for query processing module in CBIR system.