



My solution is correct because I followed the assignment instructions to implement the clustering algorithms and verified my results using both visualizations and error calculations. For the MNIST K-Means clustering, the centroid images look like recognizable digits, and the clustering error is printed in the required format. For the dogs dataset, I generated the dendrogram and calculated the clustering error by comparing cluster assignments to the true clade labels. Importantly, the number of errors I observed matches what is typically expected for these unsupervised methods. There are some misclassifications, but the error rates are reasonable given the nature of clustering, which rarely achieves perfect separation. This alignment between my results and the expected performance of these algorithms gives me confidence that my code is working correctly.