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Final Project Summary

The idea for this final project was first presented by Professor Fitzgerald by looking at the relationship between political views and COVID-19. The question aimed to be answered in this project, "Are counties that are more democratic or more republican more likely to wear a mask and receive the vaccine?" From observation of the candidates from the 2020 president election and their followers, opinions of usage of masks and acceptance of the vaccine varied. To answer this question, this project combined the already existing covid data in AWS Athena created by Facebook with votes by county in the 2020 president election. AWS Glue with its crawler features was used for faster queries and AWS Athena to combine these separate datasets. Then Julia was used to apply dimension reduction (PCA) and clustering (KMeans). The new data set was clustered into two clusters. With one cluster containing 96% of the counties. The centroid and a couple counties from each cluster was observed to see a relationship to back up the observation. It was difficult to determine whether KMeans clustering supported the hypothesis. In general, most counties that voted for the democratic candidate had high acceptance of the vaccine and were more willing to wear masks. There were also some inconsistencies in both clusters. More can be improved to better answer the question.