1. Download and unzip Xray images.
2. Data visualization and interpretations using PCA.
3. Create a folder named “COVIDData” of the 200 images assigned to you.
4. Use and modify the code “COVID\_PCA\_project.m” to create the 3-dim PCA clusters and other supporting images and statistics to compare COVID and Normal cases.
5. Articulate your observations and characterize any differences that you note between COVID and Normal cases.
6. Data Extraction for Predictive Modeling

Use “CRTNNW.m” to extract new variables and data for predictive modeling done by machine learning models.

1. Decision Tree and Neural Network Modeling

Use the data obtained in Step 3 and the IBM SPSS 26 available through UMKC remotelabs to build the following two models:

1. A Decision Tree Model
2. A Neural Network Model