The task provided to me was to classify chemical compounds into either MUSK-type or NON\_MUSK-type compounds on the basis of the given data. Since it was a classification task, I thought it appropriate to use a Multilayer Perceptron Neural Network of sufficient parameters. The first thing to do was to normalize the data using Standard Scaler from sklearn’s preprocessing module as it would prove tremendously helpful to have all the data on the same scale as Machine Learning Algorithms are more effective and/or work better on data that is similarly scaled more so, when the scales of individual features are not known as was the case here( features were labelled f1,f2..etc.) next I split the dataset in 8:2 ratio for training and for actual testing separately, after that I built a sequential Model with Keras and added Several Dense Layers with a few Dropouts in between as a precaution for overfitting which resulted in 189,259 trainable parameters. I trained the model for 20 epochs with a validation split of 0.2 and was able to achieve

A validation loss of 0. 05986

An accuracy of 92.94%

An accuracy on the testing data I separated earlier = 92.121212%

The graphs for the same are as follows: 

