

Machine Learning Assignment 5

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Codes for all questions has been coded in single jupyter notebook and headings given accordingly

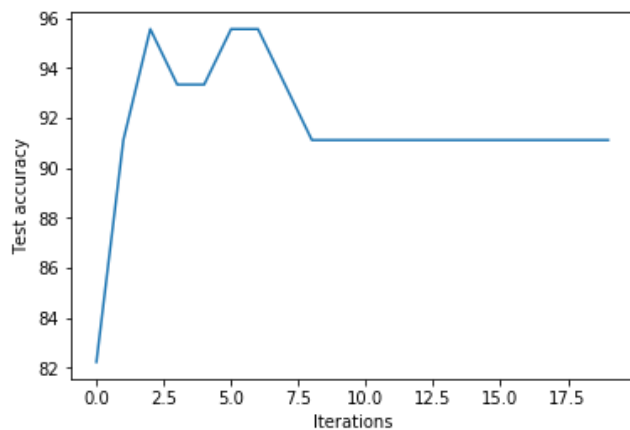
<https://gist.github.com/girish1511/eb12dd314cbb31fbfea24ace100c1e4f#file-assignment6-ipynb>

Q1.

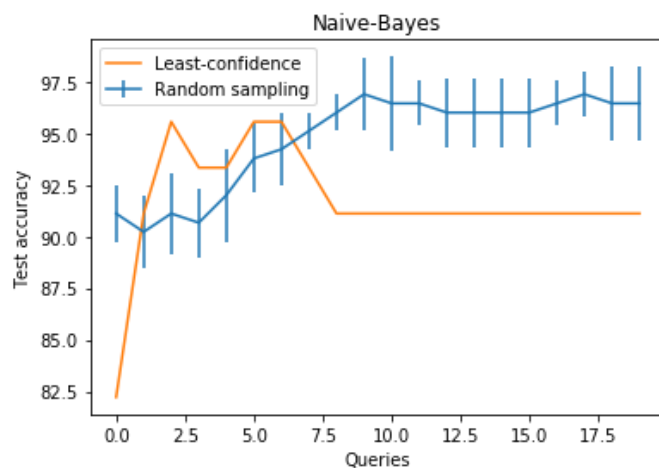
Test Accuracy: 97.77777777777777

Q2.

i)



iii)



We can infer from this that the random sampling performs as well as the least confidence estimation. It also depends on the initial shuffle that is performed from train, pool, test split. It can also be observed that the sometimes test accuracy can decrease a lot in least confidence as

number of queries is increased but in random sampling the decrease in test accuracy is less compared to least confidence. Sometimes random estimation performs better than least confidence.

References:

<https://stackoverflow.com/questions/41244322/how-to-color-voronoi-according-to-a-color-scale-and-the-area-of-each-cell>