

# Programming Assignment 5

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# tSNE Plots of Learned Representations

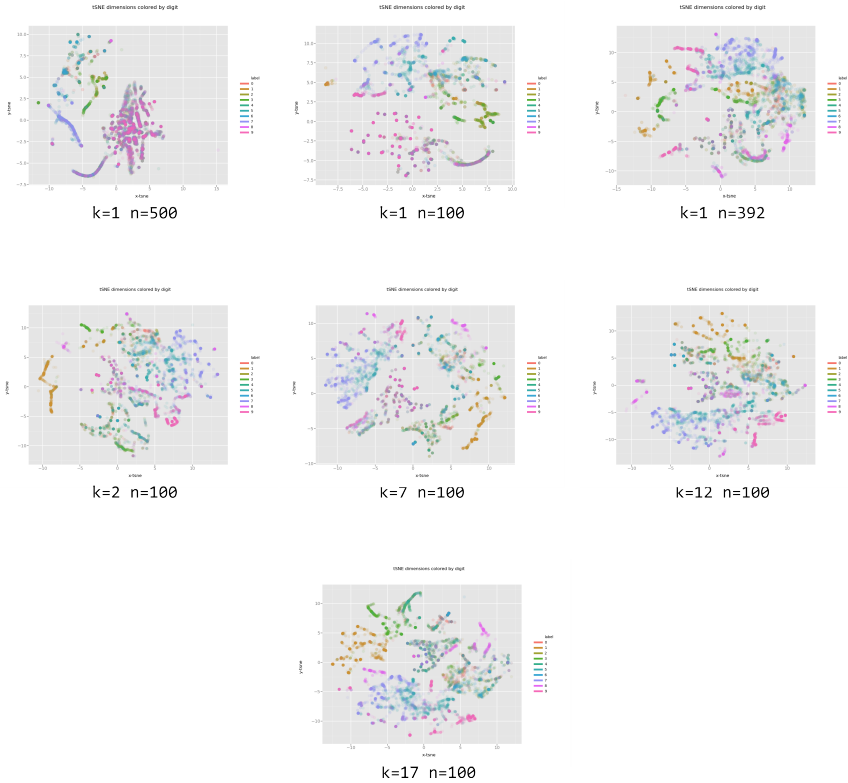


Figure 1: 2-Dimensional Representation using tSNE

# Effect of Using different values of $k$

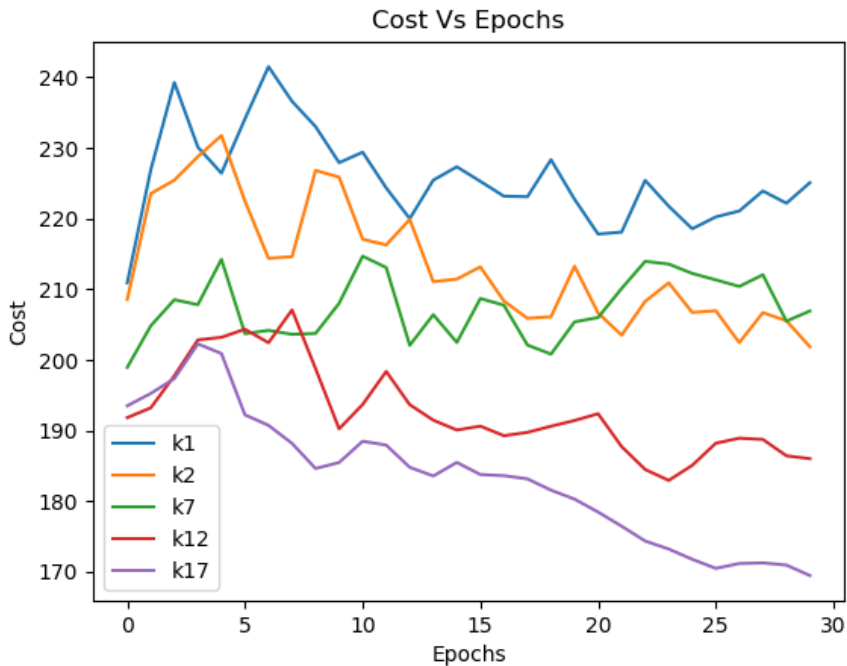


Figure 2: Running Gibbs Chain  $k$  times, In every step of Stochastic Gradient Descent

It is evident from the experiments that if we let the chain to run longer, i.e. for high values of  $k$  we get better results.

# Samples generated by Gibbs Chain

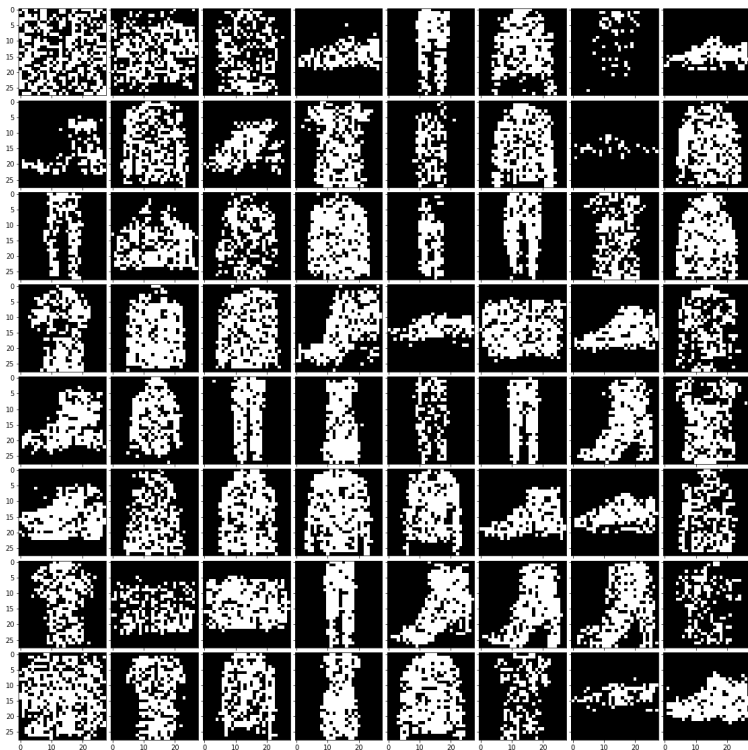


Figure 3: Samples generated by Gibbs Chain after every  $\frac{m}{64}$  steps of SGD