

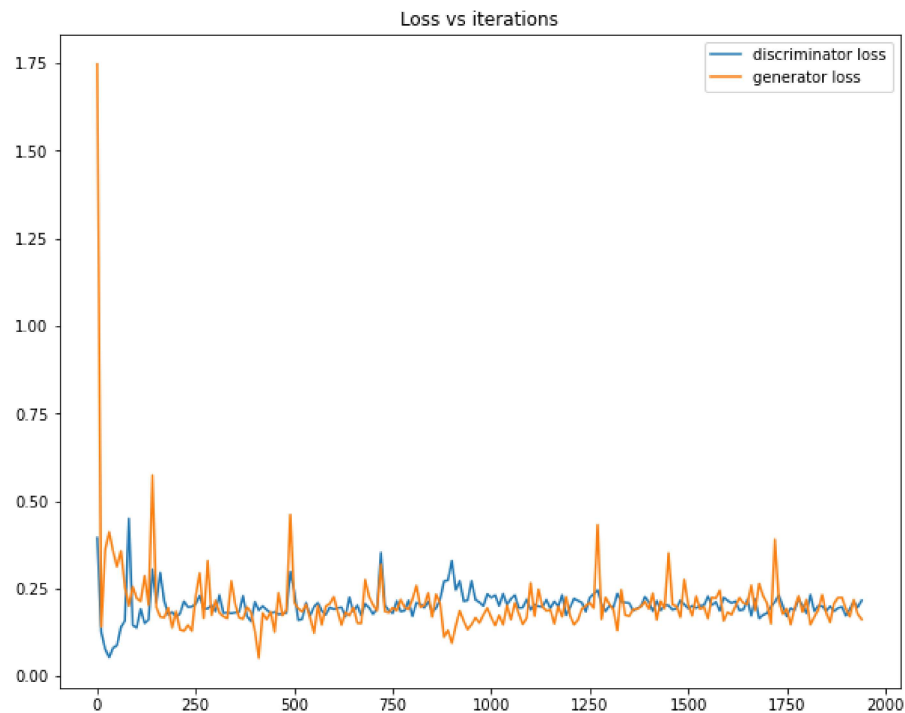
Questions to answer

- **A: Train DCGAN on MNIST dataset and plot out the generated images every 150 training iterations for 5 epochs**

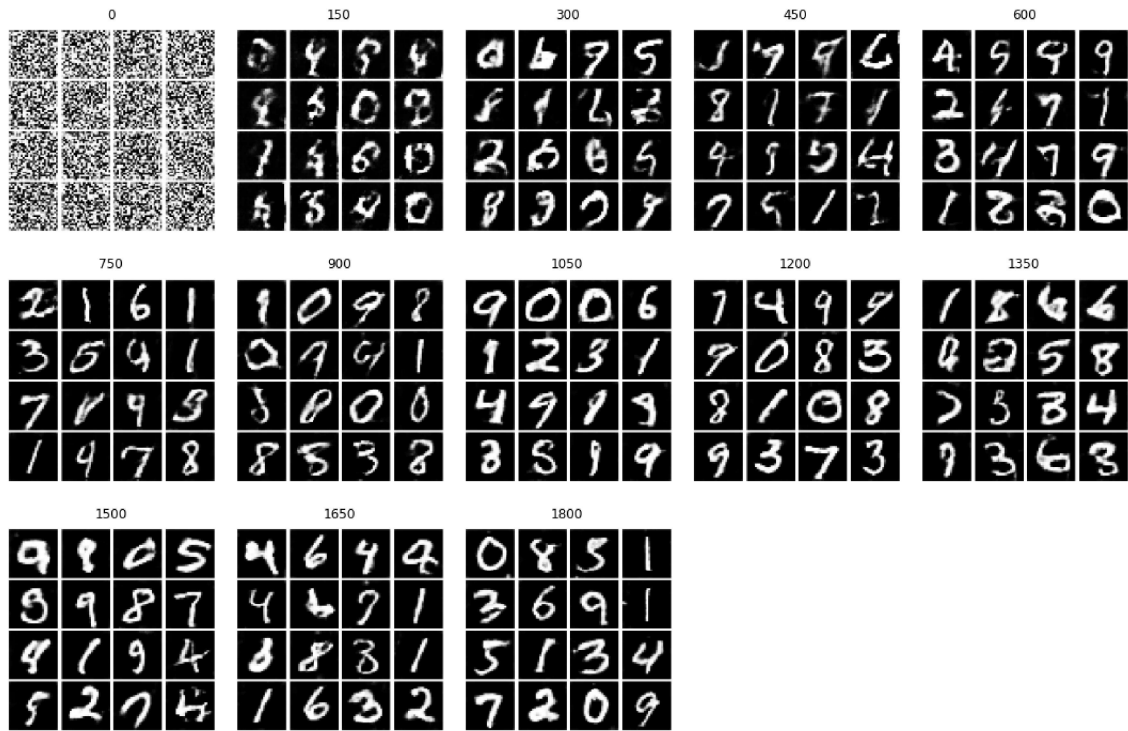
The DCGAN is trained as in the notebook

- **B: Describe and interpret the changes of the generator loss and the discriminator loss when you train the DCGAN. (e.g. Is the generator/discriminator loss decreasing, increasing, or be constant? How do they reflect the quality of the generated images?)**

The loss curve for discriminator and generator over iterations is shown below. As in the graph, it seems that both losses decrease a lot at the beginning, especially for the generator. Then the two losses start to oscillate and they are close to each other. Also, it seems that the generator loss is more dynamically changing, while discriminator loss is more stable. When the generator loss increases, the overall quality of hand-written image might decrease.



The results for `show_images()` function are shown below for every 150 iterations in 5 epochs.



I'm greatly thankful to the author of the helper/template notebook, which substantially helped me go through the GAN and DCGAN models. Best regards.