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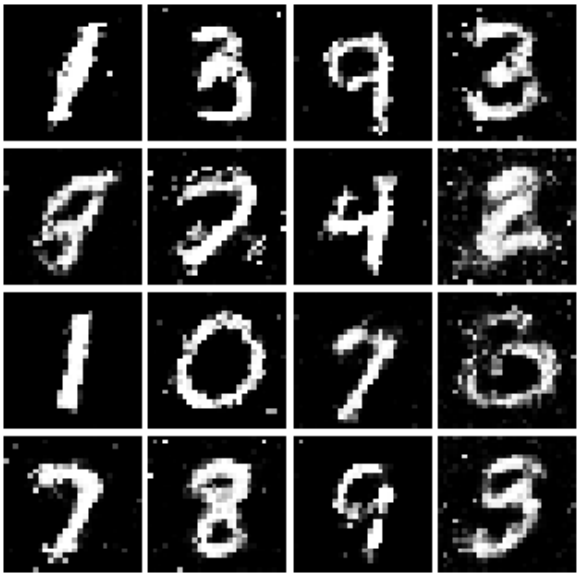
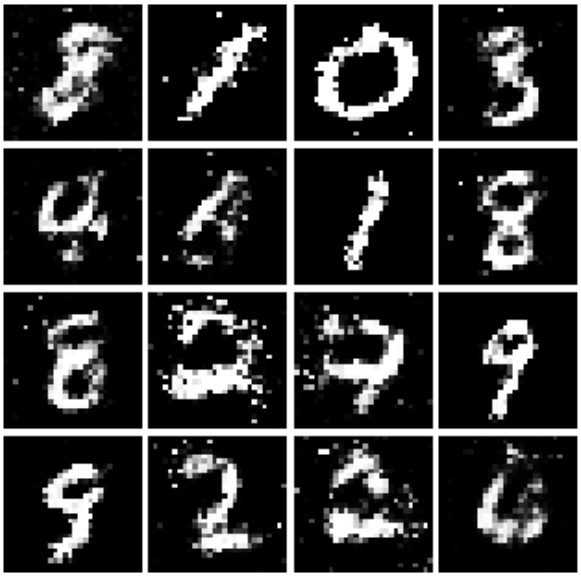
GAN and LSGAN MNIST

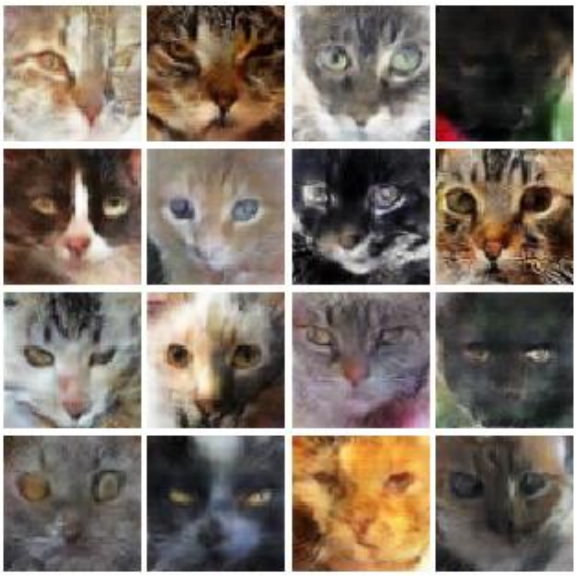
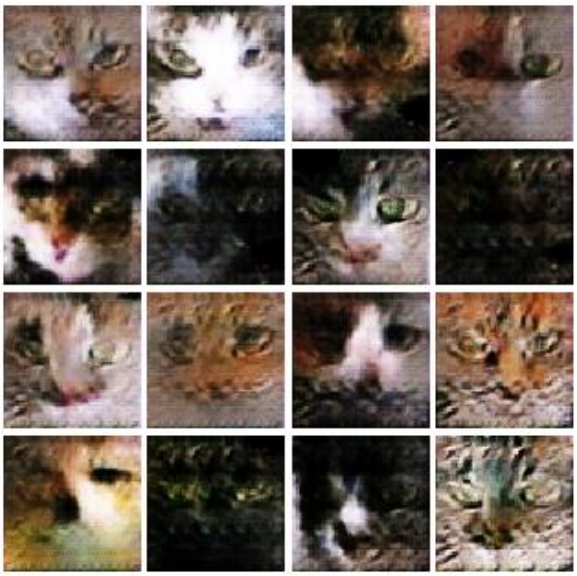
Show final results from training both your GAN and LSGAN (4x4 grid of images for both):

GAN	LSGAN
	

GAN and LSGAN Cats

Show final results from training both your GAN and LSGAN (4x4 grid of images for both):

GAN	LSGAN

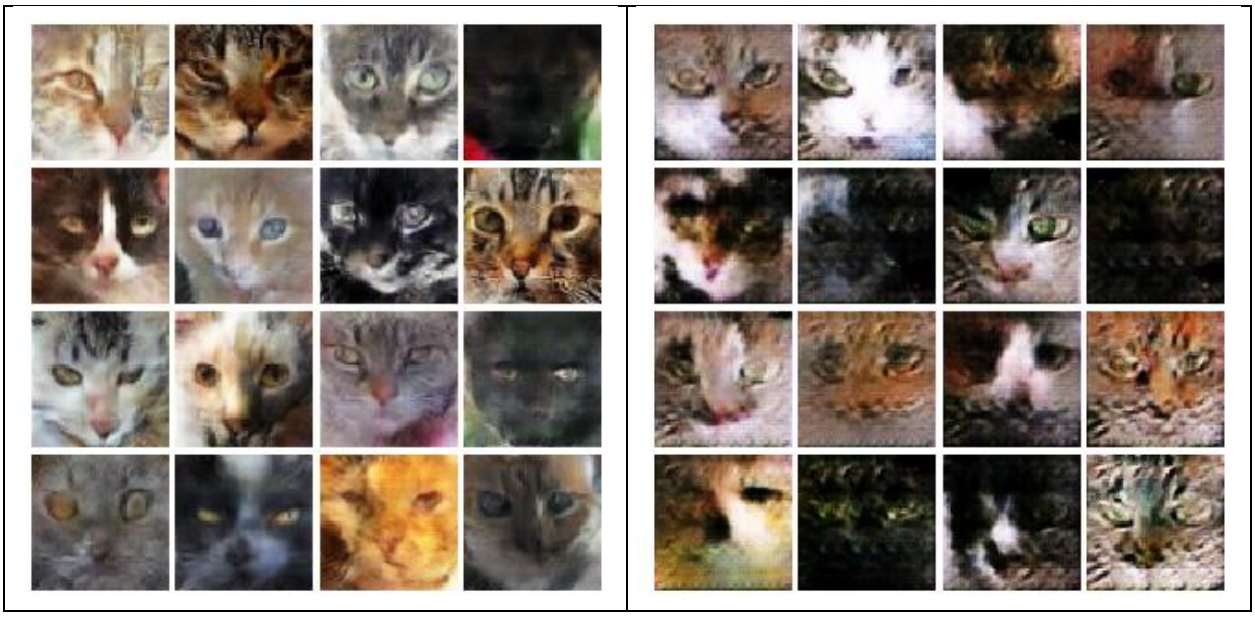
Discuss any differences you observed in quality of output or behavior during training of the two GAN models.

Based on the output images, we found that the cat images produced by the GAN model were closer to reality than those produced by the LSGAN model. The images generated by the LSGAN model are prone to have periodic noise.

Do you notice any instances of mode collapse in your GAN training? Show some instances of mode collapse from your training output.

In the below picture on the left side, the image in the upper right corner is an example of mode collapse. The outline of the cat cannot be seen at all in this picture. Almost all the images in the below right picture are close to mode collapse, because only two eyes can be seen slightly.

GAN	LSGAN



Extra Credit - Alternative GAN Formulation

Explain what you did (describing all model changes and hyperparameter settings) and provide output images.