Practical to GANs

Aufgabe P 3. *GAN, due 25. January (in class)*

In this practical you will use the code of GANs from `https://github.com/tensorflow/tensorflow/blob/r1.11/tensorflow/contrib/eager/python/examples/generative_examples/dcgan.ipynb` Each group will generate different images from the dataset cifar10. You need to replace the data load call of MNIST with $tf.keras.datasets.cifar10.load\_data()$. Another modification that you need to perform is to use 3 kernels. Make sure that the generated image has following shape: 32, and hence perform some other small modifications on the numbers in the code.
Below is the mapping for each group to the image class id that you should generate:

- Simon, Joshua: 0,
- Jonas, Johnny: 1
- Ben, Nico: 2
- Brian, William: 3
- Andreas, Deniz: 4
- Dennis, Tomislav: 5
- Johannes, Fabian: 6

Generate and save some examples with this modifications. Now, add a layer to the generator. Do you get better images?