

- Environment: Colab
- Steps to do
 - 1. Download cifar10 dataset
 - https://www.tensorflow.org/api_docs/python/tf/keras/datasets/cifar10/load_data
 - 2. Choose a CIFAR10 image A
 - A is a color image, and the range of the intensity should be [0, 255]
 - 3. Generate a 2-dim $m \times m$ gaussian filter ($\text{sigma} = \sigma$)
 - 4. Convolve A with the gaussian filter (you can carry out convolution for each channel separately), and generate filtered result B
 - Use `tf.nn.conv2d` (tensorflow api)
 - 5. Repeat steps 3-4 by changing parameters and capture the results

Report

- You need to submit a short report; (Due: 9/28, 2pm)
 - Format: studentid_name.pdf + ipynb code (should work on the colab platform)
 - In the report:
 - Only need to put the captured 9 figs and add your short analysis in the report
 - Text length of your analysis is limited to 10 lines

	$\sigma = 1$	$\sigma = 3$	$\sigma = 5$
m=3	Fig 1	Fig. 2	Fig. 3
m=7	Fig 4	Fig. 5	Fig. 6
m=15	Fig 7	Fig. 8	Fig. 9

- Late submission will not be allowed (no score!!)