Week-3-3-Linear-Regression-in-TF-demo-script

(Begin in-camera)
In the previous video, we got familiar with the TensorFlow Graphs, Ops, Variables and Constants.
We also saw how TensorFlow computes gradients of arbitrary functions.
In this video, we will apply all this machinery to estimate a linear regression model in TensorFlow.
We will do it using two methods.
The first one is based on the Normal Equation for Linear Regression that we introduced earlier.
The second one is a probabilistic method called the Maximum Likelihood Estimation, or MLE for short.
So, let's just dive in, and see how it all works!
(Start the Jupyter notebook video).
Here we are in the notebook.
The first cell are usual imports, as well as imports from TensorFlow.
We will import TensorFlow as TF, and will also import a layer class here.
We will use it below.
The second cell is the graph reset utility function that we already used in our previous notebook.

(Ending in-camera)
Now, after we saw the working of Linear Regression in TensorFlow, and used both the Normal Equation solution and the Maximum Likelihood solution, we are ready to move on with Regression problems in Machine Learning.
In the next video, we will look at how regression problems are solved using Neural Networks.