Homework 1 (by December 5, 2017)

1. practice building and running tensorflow graphs
2. implement Logistic Regression, i.e. learn \( w \) by minimizing the logistic loss
   \[
   L(w) = \frac{1}{n} \sum_{i=1}^{n} \log (1 + \exp(-y_i w^\top x_i))
   \]

   using a) fixed data, and b) data being handed in via placeholders
3. try different learning rates to find one that converges faster than \( \eta = 0.001 \)
4. (optional) create a version with analytically computed gradients, compare it speed

hand-in requirement

5. upload your code to 2a),2b) with a reasonable \( \eta \) to the git server