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As required in 1.2 section, we have 2 files with 500 examples each (pos and neg).

We added them and then shuffle the content (1000 shuffled examples), this content split to two sets: training_set with 800 examples, test_set with 200 examples.

After that, we start the training (10 iterations/epochs) and for each iteration – test the accuracy on test_set.

The network succeed in distinguishing the two languages!!

I will share some of my printed messages:

epoch : #1
train took 4.442044019699097
train avg loss: 0.196250
test took 0.3372306823730469
test accuracy: 93.50%
time till now: 4.780021905899048

epoch : #2
train took 4.7787110805511475
train avg loss: 0.115000
test took 0.4580063819885254
test accuracy: 100.00%
time till now: 10.01750898361206

epoch : #3
train took 5.1059582233428955
train avg loss: 0.001250
test took 0.4610917568206787
test accuracy: 100.00%
time till now: 15.586381435394287

epoch : #4
train took 5.676140546798706
train avg loss: 0.000000
test took 0.4315207004547119
test accuracy: 100.00%
time till now: 21.694740772247314

epoch : #5
train took 5.359011888504028
train avg loss: 0.000000
test took 0.3884594440460205
test accuracy: 100.00%
time till now: 27.44298005104065

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epoch : #6
train took 5.203464984893799
train avg loss: 0.000000
test took 0.38485217094421387
test accuracy: 100.00%
time till now: 33.031986474990845

epoch : #7
train took 5.137852668762207
train avg loss: 0.000000
test took 0.37942075729370117
test accuracy: 100.00%
time till now: 38.54995632171631

epoch : #8
train took 5.122095823287964
train avg loss: 0.000000
test took 0.3799412250518799
test accuracy: 100.00%
time till now: 44.05332851409912

epoch : #9
train took 4.93255615234375
train avg loss: 0.000000
test took 0.408510684967041
test accuracy: 100.00%
time till now: 49.39510107040405

epoch : #10
train took 4.714488744735718
train avg loss: 0.000000
test took 0.34983348846435547
test accuracy: 100.00%
time till now: 54.46013116836548

as we can see, not only that the network succeed in distinguishing the two languages, it was also very fast!

In the **fourth epoch (which took 21.6947 sec):**
      - the train loss is 0!
      - we get 100% accuracy on test_set!